

Self-Efficacy and the Leadership Development of Women in Academic Medicine: A
Study of Women Alumnae of the Hedwig van Ameringen Executive Leadership in
Academic Medicine® (ELAM) Program

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Self-Efficacy and the Leadership Development of Women in Academic Medicine: A Study of Selected Women in the Hedwig van Ameringen Executive Leadership in Academic Medicine® (ELAM)

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Dedication

This dissertation is dedicated to all of my wonderful family members. Especially to my loving and patient fiancé, John Franklin, who has supported me throughout this very challenging journey and encouraged me in moments of despair. This is also dedicated to my wonderful mother, Mary Johnson, who taught me to believe in myself and instilled in me the will to persevere through difficult times. I sincerely thank my three sons, William Gibbs, Jr., Anthony Gibbs, and Jerubbiel Gibbs, for their loving support and encouragement during this project. A special devotion goes to my three beautiful grandchildren, Hannah, Trystan, and Jerubbiel, Jr., for their patience and understanding. Finally, this dissertation is dedicated in loving memory of my two late sisters, Karlina and Deborah Johnson.

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Abstract of Dissertation

Self-Efficacy and the Leadership Development of Women in Academic Medicine: A Study of Women Alumnae of the Hedwig van Ameringen Executive Leadership in Academic Medicine® (ELAM) Program

Despite the fact that women have reached parity in entering and graduating from medical schools (AAMC, 2014), the percentage of women who advance to leadership positions is small. The purpose of this study was to explore the connection between self-efficacy and leadership development over a multi-year period among women in academic medicine following their participation in a specialized leadership development program. The purpose was addressed by analyzing secondary interview data from alumnae of the Hedwig van Ameringen Executive Leadership in Academic Medicine® (ELAM) Program for Women, using a content analysis research design based on a constructivist paradigm of inquiry. The research problem addressed in this project was that the existing literature is deficient in studies that focus on the exploration of self-efficacy and how it influences the leadership development over time of women in academic medicine. Using Bandura's (1997) self-efficacy theory, this qualitative study was based on the thesis that Bandura's four sources of self-efficacy (performance accomplishments, vicarious experiences, verbal persuasions, and physiological states) are determinants of success over time for ELAM alumnae who achieve leadership positions in academic medicine.

This study had five major findings. First, this study supports each of Bandura's (1997) four sources of self-efficacy. Second, the most robust evidence of self-efficacy was found in the performance accomplishments self-efficacy source. Third, there was development of self-efficacy over time with the greatest growth within the self-efficacy source of performance accomplishments in the area of skill development relating to

negotiation, delegation, budgeting and finance, communication, political savvy, and leadership enhancement, followed by vicarious experiences, and verbal persuasion. Physiological states had the least growth. Fourth, the research and subsequent analysis of findings extend Bandura's (1997) previous research domains to include the demographic of women in academic medicine which could have transferability to highly educated and successful women professionals working in leadership roles in male-dominated fields. Fifth, Bandura's (1997) self-efficacy sources may need to be expanded. This study fills a gap in the research and adds to the body of knowledge related to self-efficacy and leadership development.

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CHAPTER 1: INTRODUCTION

The purpose of this study is to explore the connection between self-efficacy and leadership development over a multi-year period among women in academic medicine following their participation in a specialized leadership development program. The purpose will be addressed by analyzing interview data from alumnae of the Hedwig van Ameringen Executive Leadership in Academic Medicine® (ELAM) Program for Women, using a content analysis research design based on a constructivist worldview. The problem of practice addressed by this study is that, despite the fact that women have reached parity in entering and graduating from medical schools (AAMC, 2014), the percentage of women who advance to leadership positions is small. The research problem addressed in this project is that the existing literature is deficient in studies that focus on the exploration of self-efficacy and how it influences the leadership development over time of women in academic medicine. Using Bandura's self-efficacy theory, this qualitative study is based on the thesis that Bandura's four sources of self-efficacy (performance accomplishments, vicarious experiences, verbal persuasions, and physiological states) are determinants of success over time for ELAM alumnae who achieve leadership positions in academic medicine.

Chapter 1 presents a basis for the study by outlining the context of the problem, the problem of practice, the research problem statement, the theoretical overview, the overview of methodology, the purpose and research questions, the significance of the study, the definition of key terms, the delimitations and limitations, and the assumptions. The chapter concludes with a summary of the contents presented.

The Context of Leadership among Women in Academic Medicine

The purpose of this section is to provide the reader with the most current contextualized portrait of the status of women in academic medicine. This information comes from the American Association of Medical Colleges (AAMC) and its latest data reports published in 2014. Women are underrepresented in the higher levels of academic medicine administration despite the fact that they have been entering the medical profession as students in increasing numbers since the mid-1960s, peaking at 51% in 2003, slightly declining to 47% in 2012. Since the 2012 AAMC report, the number of women applying to medical school has increased; however, their percentage of the applicant pool has continued to decrease, now down to 46% (2013-2014). Women now make up almost half of the medical student body and fill a similar proportion of entry-level faculty positions in medical schools (AAMC, 2014). Today, women continue to enter the field of medicine in greater numbers than ever before (AAMC, 2014).

Since 1982–83, the proportion of applicants who were women has ranged from less than a third (32.7% in 1982–83) to just over half (50.8% in 2003–04). Of the 48,014 applicants for the entering class of 2013–2014, 53 percent were men and 46 percent were women. Despite small decreases in the percentage of women applicants since 2003–04, the total number of women applicants has increased from a previous high of 20,780 in 2011-2012 to 22,086 in 2013–14. (p. 5)

Women currently encompass nearly half (46%) of medical school enrollments according to the latest available data (The State of Women in Academic Medicine Report, 2014).

However, if examined carefully, the data show that women continue to lag considerably behind in senior academic ranks and leadership positions within medical schools (The State of Women in Academic Medicine Report, 2013-2014). There has been much research to recognize the disparity (AAMC, 2014; Bickel, 2007; Hamel, Ingelfinger, Phimister & Solomon, 2006; Nonnemaker, 2000; White et al., 2012).

To understand the connection between self-efficacy and leadership development over time among women in academic medicine, it is essential to understand the progression of women's presence in leadership positions in the field. This next section provides a current profile of medical school deans and then focuses the discussion on the growth of women as medical students and graduates, the growth in percentage of women faculty, the growth of women department chairs, the growth of women as senior administrators, and finally, the growth of women in deanships.

Current Profile of Medical School Deans

Deans are the chief academic officers of their medical schools, responsible for overseeing various missions that characteristically include education, research, and clinical service. A major study by Banaszak-Holl and Greer (1995), covering data from 1980–1992, characterized the typical medical school dean as White male in his late 40s or early 50s with a primary specialty of internal medicine. Almost two decades later, White, McDade, Yamagata and Morahan (2012) conducted a gender-related study of 534 full and interim medical school deans (38 women and 496 men) appointed between 1980 and 2006. An analysis of the study revealed that the typical medical school dean was still a White male with an average age of 58 whose primary specialty was most commonly internal medicine (White et al., 2012). Among the career progression variables tracked in the study were: age of appointment, medical specialty from which deans were appointed, and service at research-intensive institutions. An analysis of these variables revealed that during 1980–2006, 54.9 years was the mean age at the time of appointment to dean. For the same time period, the greatest number of deans (56.8%) received their MDs from the top 50 NIH-ranked research-award schools. The White et al. (2012) study showed that

the typical dean was promoted to full professor at an average age of 40.9 and reached interim or full deanship within 14.6 years of achieving full professorship. With regard to tenure, 95% of deans served as deans for less than 5 years.

Other studies (Rich, Magrane & Kirch, 2008; Spencer Stuart, 2007), provided insight into the dramatic changes that have occurred in medical school deans' roles and responsibilities over the past 50 years. In comparison to the relative simplicity of duties 50 years ago, deans' responsibilities have increased to meet the growing management, leadership, and financial demands of the institutions and organizations they serve, requiring a more comprehensive skill set. In addition to the traditional medical school, today's deans may oversee clinics, hospitals, and major research centers while managing budgets of multi-million to a billion or more dollars and engage in extensive fundraising, while being accountable for a plethora of other enormously demanding and time-consuming responsibilities (Rich et al., 2008; Spencer Stuart, 2007).

The current profile of medical school deans (male, 54.9 years old at appointment, internal medicine specialty) establishes a baseline for understanding the demographics of senior administrators in academic medicine and the growing complexity of their roles and responsibilities in management, leadership, and finance.

Increase in Women as Medical Students and Graduates

Any increase in the percentage of women in academic medicine begins with the percentage of women medical students and graduates. This symbolizes the first rank of the deanship hierarchy. The large influx of women medical students began in 1970 when 9.6% of all students who enrolled in U.S. medical schools were women. A decade later, in 1980, 25.3% of all students enrolled were women (Braslow & Heins, 1981). The

percentages increased to the point that in 2005–2006 academic year, 50% of all students enrolled in U.S. medical schools were women (Magrane, Clark, Yamagata, & Chapman, 2006). It is important to note that women who are currently at the upper ranks of the deanship hierarchy were medical students during the 1980s, when women represented only a quarter of all medical school students. This is an important caveat because these women ascended to the higher ranks of the hierarchy without the benefit of a large percentage of women in the bottom rank of the hierarchy (Magrane et al., 2006).

As more women enrolled in medical school, more women graduated. Braslow and Heins (1981) reported that women medical school graduates increased from 8% in 1970 to 23% in 1980. In the latest data (2011–2012 and 2013-2014 academic years), women accounted for 48.3% of medical school graduates (AAMC, 2012; AAMC, 2014). Thus, while women have grown in their admission to medical school, their graduation from medical school has sustained at 48% since 2011-2012. In 2009–2010, women received 8,133 (48.3%) of the 16,838 MDs awarded, representing the largest number of women earning a MD in any national graduating class up until that time (AAMC, 2010). The 2012 AAMC report showed that in 2011–2012, women received 8,235 (47.8%) of the 17,332 MDs awarded, just slightly down from the 48.3% achieved in the two previous years. In 2013-2014, AAMC reported that women received 8,579 (47.5%) of the 18,078 MD/PhDs awarded. No data related to the number of MDs awarded by gender were shown in the AAMC 2013-2014 report. With more women graduating from medical school, there is a greater likelihood that an increasing number of these women graduates will choose faculty careers (AAMC, 2014). This bottom rank of the hierarchy

— women students and women medical school graduates — establishes the foundation for increases in women in leadership positions within medicine.

Increase in Percentage of Women Faculty

The second rank of the deanship hierarchy includes women who are faculty in academic medicine. The percentage of women who were basic science or clinical faculty members increased from 13.3% in 1967–1968 to 15.2% in 1977–1978 (Braslow & Heins, 1981), and grew to 19% in 1987 (Bickel, 1988). During the 2009–2010 academic year, women represented 31% of basic science faculty and 36% of clinical faculty (AAMC, 2011). The most recent data from AAMC (2013-2014) indicate that 32% of women are represented in basic science faculty and they continue to hold at 36% of clinical faculty. Again, it should be noted that the women currently represented in the upper ranks of the deanship hierarchy were among the approximately one-fifth of faculty members in the 1980s who were women. Women faculty increased to 37% in 2011–2012. The 2013-2014 AAMC report showed an increase to 38% in women faculty, representing 1% more than the previous year. This percentage was progressively up from 28% in 2000, 32% in 2005, and 35% in 2011. Although the increase was not as great as with medical students and graduates in the same period, the increase to almost 40% of faculty members does demonstrate a progression towards positional equity for women in academic medicine (AAMC, 2014).

The data on total women faculty can be misleading. Although women are increasingly successful at entering the faculty, they are less successful in being promoted to associate and full professors. In 1988, 49% of women medical school faculty were assistant professors, 20% were associate professors, and 9% were full professors (Bickel,

1988). Ten years later, in 1997, while the percentage of women assistant professors decreased to 34%, the percentages at the senior ranks were virtually unchanged at 19% associate professors and 8% full professors (Nonnemaker, 2000). Nonnemaker attributed the change to the distribution of men and women on medical school faculties and differences in the timing of promotion for men and women. The data reported 10 years later, for the 2009–2010 academic year, showed a substantial increase in the senior ranks; women constituted 31% of associate professors and 19% of full professors (AAMC, 2011). The most recent AAMC (2014) report showed a slight increase (34% of associate and 21% of full professor ranks) from the 2009-2010 benchmarks.

This slow increase at the associate and full professor levels is counterintuitive to the underlying pipeline hypothesis that, as more women entered academic medicine and achieved the necessary experience, their ascension up the faculty ranks would be forthcoming. A survey conducted by the “Increasing Women's Leadership in Academic Medicine: Report of the AAMC Project Implementation Committee” confirmed observations about the scarcity of women in leadership positions at many medical schools across the nation. The most recent data as to how women have progressed are noted in Table 1.

As shown in Table 1, women have almost reached parity (48%) as medical students, are now the majority (56%) in other ranks, and are almost at parity (44%) at the assistant professor rank. However, there is still much room for improvement in the higher faculty ranks where women are only 21% of full professors. Since the full professorship is the pathway to senior administrative positions, this paucity of women at the full professor level helps to explain why women are still less than a quarter of

Table 1

A Comparison of Women Representation in U.S. Medical Schools: 2004 through 2014

Category	2004 (%)	2014 (%)	Percent Difference (+/-%)
Applicants	51	47	-4
Accepted Applicants	50	48	-2
Residents	50	46	-4
Instructors/Other Ranks	52	56	+4
Assistant Professors	37	44	+7
Associate Professors	26	34	+8
Full Professors	14	21	+7
Division/Section Chiefs	16	24	+8
Department Chairs	10	15	+5
Deans	10	16	+6

Note. This is the latest year for which data are available. The data were adapted from the AAMC (2014) website.

division or section chiefs, and only 15% of chairs and 16% of deans. These low numbers, although showing improvement from previous years, provide support for why it is important to understand the issues surrounding leadership and leadership development among women in academic medicine.

In sum, although there have been increases in the overall percentage of women academic medicine faculty, women tend to be clustered at the assistant professor rank where progression to full professor takes, on average, 12.1 years to achieve (White et al., 2012). The difficulty women have in being promoted to the higher academic ranks perpetually diminishes the percentage of potential women in the higher levels of the ladder to the deanship.

Increase in Women Department Chairs

The third gradation of the deanship hierarchy is represented by the percentage of women serving as department chairs. Department chair is a particularly potent

administrative post on the career ladder to a deanship because such positions serve as a testing ground for future senior administrators. However, the percentage of women who have been department chairs has shown little improvement over time. Of the deans appointed between 1980–1992, 37% served as a department chair prior to their deanship (Banaszak-Holl & Greer, 1995). During the 1994–1995 academic year, fewer than 5% of the basic science and clinical department chairs, including interim and acting, were women (Bickel & Ruffin, 1995). Moreover, the percentage of permanent chairs of basic science and clinical departments only increased from 13% and 8% respectively in 2005–2006 (Magrane et al., 2006) to a corresponding 17% and 11% in 2009–2010 (AAMC, 2011).

The latest AAMC (2014) Benchmark Report showed that in 2013–2014, women represented an increase to 20% of chairs in basic science departments, while representation in clinical departments increased from the 2011 level of 19% to 24% in 2014. The White et al. (2012) study, which added a gender analysis to the Banaszak-Holl and Greer (1995) study, revealed that only 28.9% of women have held department chair positions before achieving deanship, lower than the 37% previously reported for both men and the few women deans. This persistent low percentage in the number of women department chairs emphasizes the challenge facing women who need this stepping stone to higher administration positions including the deanship.

Increase in Women as Senior Administrators

The fourth level of the deanship hierarchy includes women in senior administrative positions. This level of the hierarchy is important because deans often serve in other medical school senior administrative positions such as associate, senior

associate or vice deans prior to their appointment to full deanships. To that end, these types of dean staff positions are linked to the pathway to full dean. The struggle of women to attain senior levels of leadership in academic medicine has been met with a labyrinth of barriers, difficulties and diversions (Eagly & Carli, 2007; Morahan, Rosen, Gleason & Richman, 2011; Pololi, Civian, Brennan, Dottolo & Krupat, 2012, White et al., 2012). In 1975–1976, only 3.4% of assistant deans were women, which only increased to 7% in 1980–1981 (Braslow & Heins, 1981). At the associate dean rank, in 1975–1976, 11.7% of associate deans were women, increasing in 1980–1981 to 17.1% (Braslow & Heins, 1981).

About 20 years later, in 2004–2005, women represented 45% of the assistant deanship staff and 29% of the associate and senior associate/vice deans (AAMC, 2005). Data from the 2009–2010 academic year revealed that at the assistant dean rank, women represented 47% of the dean staff, while at the associate and senior associate/vice dean rank, women accounted for 36% and 28% respectively (AAMC, 2011). The most recent data show that 46% of assistant deans, 39% of associate deans and 33% of senior associate deans are women (AAMC, 2014). Table 2 illustrates the distribution of women in a fuller range of senior leadership positions, including in permanent, interim and acting leadership roles. Except for relative gender parity at the lower administrative leadership levels (such as assistant deans and interim associate chair and some acting positions), there is clearly a paucity of women in leadership. This further magnifies the gross disparity in women's advancement to leadership positions in academic medicine. The fluctuation in the percentages of women in these senior positions suggests that when there is a small denominator (as in acting), a change of 1-2 people can create a major

Table 2

Distribution of Women in Permanent, Interim, and Acting Leadership Positions, 2013

Position	Permanent (%)	Interim (%)	Acting (%)
Division/Section Chief	24	31	38
Associate Chair/Vice Chair	24	40	0
Department Chair	15	25	36
Assistant Dean	46	50	40
Associate Dean	39	33	30
Senior Associate Dean/Vice Dean	33	38	54
Dean	16	22	0

Note. Each percentage is calculated within the permanent, interim or acting positions. Adapted from AAMC Website (AAMC: Women in Academic Medicine and Science Statistics and Benchmarking Survey, 2013-2014).

change in the overall percentage of women in these leadership positions (AAMC, 2014).

Nonetheless, women are clearly underrepresented at senior level administrative positions that serve as cabinet to the dean. The senior administrative positions represent the fourth level of the hierarchy in the career progression to deanship.

Increase in Women Deanships

The last and top rank of the hierarchy is the deanship. In July 1996, women deans led only 3% of U.S. medical schools (AAMC, 1996). Since then, the proportion of women deans has grown from 5% in 1999 to 10% in 2004 to 13% in 2009 (AAMC, 2011). In a recently published, gender-related study of 534 full and interim medical school deans (38 women and 496 men) appointed between 1980 and 2006, White et al. (2012) affirmed that the growth of women deans remains low. The researchers' study showed that, "Although the number of women deans increased during the 27-year study period, the representation of women remains low, constituting only 15% of deans appointed during 2000-2006" (p. 1015). According to their study, "the overall growth of

women deans failed to keep pace with the percentages of women medical school faculty and students,” (White et al., 2012, p. 1015). As of December 2013, only 19 (16%) of the 120 permanent medical school deans were women (AAMC, 2014); up two percent from 2011.

The pipeline hypothesis assumes that as more women achieve the requisite education and experience, their ascension up the faculty and administrative ranks will logically follow in proportion (Glazer-Raymo, 1999). According to White et al. (2012), this is logical if there is a broad base of women who are full professors or in leadership positions on the dean’s staff or in departments to support the decreasing numbers at each of the respective levels. Unless the percentage of women expands proportionately at all ranks of the hierarchy, very few women will be included in the pool of individuals selected for deanships (Glazer-Raymo, 1999; White et al., 2012).

Even though the percentage of women entering the medical field has increased substantially, the data consistently show that the distribution of women in leadership positions is unequal and continues to be a challenge for those who strive for positional equity in the male-dominated field of academic medicine.

In sum, the current profile of deans continues to be that of a White male, average age 54.9 with a primary specialty of internal medicine. From a hierarchy viewpoint, women enrollees and graduates represent the bottom while faculty constitute the second and department chairs the third level. Gender disparity is virtually nonexistent in the matriculation and graduation of women medical school students; however, the research shows that little progress has been made in the number of women reaching the rank of professor or becoming department chairs. This lack of growth reinforces the notion that

women are under-represented in the primary pool from which medical school deans are selected (AAMC, 2014; Yedidia & Bickel, 2001).

Summary

This section attempted to contextualize the status of women in academic medicine as this is the population and work environment of the participants in this study. Despite the fact that women have achieved virtual parity in entering medical school, have attained majority status at the instructor and other ranks levels, and have made slight increases in leadership positions over time, they still struggle to overcome the barriers that impede their leadership aspirations. Women in academic medicine are still underrepresented in the advanced faculty ranks of associate professor and full professor (AAMC, 2014). They still wrestle with the inequities of promotion and tenure and persistently lag behind in ascending to senior leadership positions. The data clearly show that the number of women promoted to positions of leadership in academic medicine is unequal to the number of men in positions of leadership (AAMC, 2014; Bickel, 2000; Bickel et al., 2002; Bickel & Kopriva, 1993; Coffman, 2005; Loder, 2002; Lorber, 1991; Morahan et al., 2001; More & Greer, 2000; Nonnemaker, 2000; Tesch, Wood, Helwig, & Nattinger, 1995; Pololi et al., 2012; White et al., 2012). Although there have been increases in the percentage of full-time women faculty members, the ratio of women full professors to men full professors continues to be disproportionate (AAMC, 2014; Bickel, 2000; Bickel et al., 2002; Bickel & Kopriva, 1993; Coffman, 2005; Loder, 2002; Lorber, 1991; Morahan et al., 2001; More & Greer, 2000; Nonnemaker, 2000; Tesch, Wood, Helwig, & Nattinger, 1995; Pololi et al., 2012; White et al., 2012). The gender inequity regarding leadership advancement in this work environment relates to the purpose of this study

which is to explore the connection between self-efficacy and leadership development over a multi-year period among women in academic medicine following their participation in a specialized leadership development program.

The Problem of Practice

The problem of practice refers to the real-life situation and context in which the study is situated (Creswell, 2005). The problem of practice for this study is that despite the fact that women matriculate and graduate from medical schools at virtually the same rate as men, the percentage of women who ascend to leadership positions is small.

A pervasive explanation found in the literature for continued underrepresentation of women in academic medicine leadership has been the organizational environment, culture, practices, policies, and norms that have tended to be gender biased, disenfranchising women from career advancement opportunities (Bickel et al., 2002; Britton, 2000; Carr et al., 1998; Ely & Meyerson, 2000; Palepu & Herbert, 2002; Richman, Morahan, Cohen & McDade, 2001). The multiple-barrier explanation is consistent with the labyrinth of leadership barriers concept which asserts that attaining top leadership positions is more complex than previously thought (Eagly & Carli, 2007). In fact, Eagly and Carli (2007) modified the previously accepted metaphor of breaking through a single glass ceiling to get to top leadership to that of a labyrinth, requiring women to be persistent in finding ways to overcome a multitude of barriers and obstacles.

Academic medicine has been slow to exhibit advances in the percentage of women in senior leadership positions. In 1996, Jordan Cohen, MD, President, AAMC (1996), stated that academic medical schools are in “urgent need for effective leadership in a time of great change” (AAMC, 1996, p. 800) and that “academic medicine has too

much to gain not to seek leadership that reflects the diversity of its constituents and the communities it serves” (AAMC, 1996, p. 800). Reports have indicated that women leaders are desirable in academic medicine because women maintain a greater social responsibility (Bickel, 1995; Bickel 2012), are less cynical, and display more empathy (Pololi, 2013) than do their men counterparts. Additionally, patients seek women surgeons and students seek women role models for not only their skill but also their unique experiences (Bickel, 2001). Similar to business and higher education, women bring new perspectives and experiences to the leadership of academic medical centers that reflect the diversity of all medical professionals as well as patients (AAMC, 1996). The paucity of women leaders was highlighted in the AAMC (2002) report that concluded that the representation of women leaders over the previous 25 years was incomplete and inadequate. Furthermore, the authors concluded that the long-term survival of academic medical centers is predicated upon the development and utilization of women leaders (Bickel et al., 2002). The lack of women in deanships hinders the growth of academic medical centers (Carnes, Morrissey & Geller, 2008).

In applying the results of Banaszak-Holl and Greer’s (1995) study to the deanship hierarchy analogy used earlier, it would follow that if there were fewer women faculty or chairs in the department of medicine from which 47% of deans derived, then, there is a smaller pool of potential women deans. It is important to emphasize that increasing the percentage of women at each gradation of the hierarchy is a desirable goal (AAMC, 2014; Bickel, 1995; Pololi, 2012). It is equally important that an appropriate percentage of women be represented in the other department chair and previous senior administrative deanship staff positions from which deans are typically drawn (Bickel, 1995; Magrane et

al., 2006; Morahan, 2009; Nonnemaker, 2000; Sloma-Williams, McDade, Richman & Williams, 2008; White et al., 2012).

The women who have served as medical school deans are still a small, select sorority. The most recent data from AAMC (2014) showed that of the 120 U.S. medical schools accredited by the AAMC, only 19 (16%) were headed by women. The percentage of women deans remains very small even in light of the increases in the numbers of women in academic medicine at the student, faculty, and administrator ranks. This is a problem because academic medical centers and medical schools in particular are not maximizing the leadership potential of women by appointing them as medical school deans (Morahan & Bickel, 2001).

In summary, even though women have reached virtual parity in matriculating and graduating from medical schools, made small strides in faculty ranks, and progressed slowly in their ascension to leadership positions, it remains statistically evident that a shortage of women leaders in academic medicine exists. These statistics serve as benchmarks as well as a historical timeline exposing this deficit. Women in academic medicine are continuously faced with organizational, cultural and environmental barriers, norms, policies and practices that obstruct their pathway to senior leadership positions (Pololi, 2012). Therefore, the problem of practice addressed by this study is that despite the fact that women have reached parity in entering and graduating from medical schools (AAMC, 2014), the percentage of women who advance to leadership positions is small.

The Research Problem

The problem of research refers to a topic or phenomenon that is not addressed or not addressed well or in depth in the current literature (Creswell, 2005). Considerable

literature shows that self-efficacy can significantly predict positive outcomes by individuals in pursuit of a goal (Bong & Clark, 1999; Pajares, 1997). Bandura and Wood (1986, 1989) asserted that one needs both skill and self-efficacy to perform a task successfully (Bandura, 1982, 1986; Wood & Bandura, 1989). This relates to the challenges of exercising leadership in a specialized field like academic medicine. Self-efficacy offers clues as to the development of one's leadership skills and the level at which a leader functions (Bandura, 1986). To that end, the literature is deficient in studies that address self-efficacy and leadership development in women in academic medicine. This section explores the research gap by presenting the limited research focused on self-efficacy, one study revealed in academic medicine, and a synopsis of the limited research on the evolution of self-efficacy over time.

The Literature Search Strategy

To establish the research gap, a comprehensive investigation was made through current literature. The researcher consulted with professional staff at The George Washington University Himmelfarb Health Science Library and the G. R. Little Library of Elizabeth City State University (NC) to determine the most appropriate key words to conduct an internet and literature search and to decide which databases would best hold materials directly related to the topic (E. Sullo, personal communication, February 25, 2013); and the Elizabeth City State University G.R. Little Library in North Carolina (S. Geiger, personal communication, May 19, 2012). The key terms used in this literature search were: women and female, leader, leaders, leadership, academic and medicine, self-efficacy, and higher education and college and universities. Databases were chosen for this search because of their relevance to scholarship relating to academic medicine and

higher education. Databases searched included PROQUEST, ERIC, UMI, MEDLINE, Pub Med, and Scopus. Only one study was found that addressed self-efficacy relative to women in academic medicine and leadership skills. Table 3 documents the results of these investigations.

Table 3

Searching the Literature

Literature Databases	ProQuest	ERIC	UMI	Medline	Pub Med	Scopus
Key Terms						
Women in Academic Medicine	18830	363	79	862	1020	468
Leader, Leaders	24	7	6	85	162	12
Leadership						
Self-Efficacy	134	0	0	0	1	0

Source: ProQuest, Education Abstracts, Education Resource, Medline, Pub Med, and Scopus, scholarly literature databases. Updated literature search conducted in November 2014.

One Study Related to Women Academics in Medicine, Self-Efficacy and Leadership

A comprehensive survey of literature databases using key terms related to women academics in medicine and self-efficacy yielded only one study. The study is briefly introduced here and presented in greater detail in Chapter 2. An exploratory case study conducted by Sloma-Williams, McDade, Richman and Morahan (2009) used Bandura’s (1997) self-efficacy framework. Interviews of alumnae from the Executive Leadership in Academic Medicine (ELAM) Program were examined to interpret what appeared to be self-efficacy learning and to identify Bandura’s (1997) sources of self-efficacy development. Specifically, the study examined comments related to Bandura’s four

sources of self-efficacy development - mastery experiences, vicarious experiences, verbal persuasion, and physiological states to gain an understanding of how the ELAM program enhanced their self-efficacy and thus, their leadership development. This study's group of participants comprised alumnae from the Hedwig van Ameringen Executive Leadership in Academic Medicine Program® from the classes of 1996, 1997, and 1999 and examined interviews conducted at one point in time (a single interview was completed with 41 alumnae between 0-13 months after completion of the ELAM program). The findings revealed that: (a) self-efficacy growth relative to leadership development is a gradual process, (b) self-efficacy growth is a collaborative and independent process, and (c) informal and formal support networks help women who are developing as leaders to thrive (Sloma-Williams et al., 2009). Findings from the study provide a foundation for increasing the numbers and validity of women academic leaders. It further serves to encourage individuals, departments, and leadership development programs to apply this knowledge to help women attain the recognition they deserve and the positions they aspire as academic leaders (Sloma-Williams et al., 2009). The study used Bandura's (1997) self-efficacy framework; however, the focus was limited to ELAM alumnae from 1996, 1997 and 1999 at a single point in time. This dissertation study will explore the connection between self-efficacy and the leadership development of the same 1996, 1997, and 1999 classes of ELAM alumnae by analyzing interviews conducted at multiple points in time after their completion of the program. This will allow us to better understand the evolution of leadership self-efficacy over a multi-year period.

Limited Research on the Evolution of Self-efficacy Over Time

Bandura (1993) asserted that “human functioning is affected by the beliefs people hold about how ability changes over time” (p. 5). Thus, self-efficacy can be construed as a “gradual process that requires patience for authentic and lasting growth” (Sloma-Williams et al., 2009, p. 67). According to Bandura (1997), “rate of improvement varies with state of skill acquisition. Improvements come easily at the outset, but rapid gains are harder to come by in late phases of skill development” (p. 86). To that end, this study will explore self-efficacy and leadership development over a multi-year period among women academics in medicine following their completion of the ELAM program.

Studies regarding the effect of self-efficacy over time are limited and mixed (Yeo & Neal, 2006). There is evidence that suggests that the effects of efficacy beliefs may change over time but there is disagreement over the direction and extent of change. For example, some studies found that the relationship between self-efficacy and performance strengthens over time (Vancouver et al., 2001; Yeo & Neal, 2006); other studies found that it weakens (e.g. Mitchell, Hopper, Daniels, George-Falvy, & James, 1994); whereas, other studies found no change (Lee & Klein, 2002; Vancouver & Kendall, 2006; Vancouver, Thompson, Tischner, & Putka, 2002). Although none of these studies are related to higher education, they are relevant to this dissertation study because of the objective viewpoints they offer about the connection between self-efficacy and performance, a concept that is germane to leadership development. A brief description of these studies can be found in Appendix A.

Further, since limited research exists specifically on self-efficacy and women’s leadership development in academic medicine, the researcher of the current study drilled

down into the literature to identify several dissertation studies that addressed women professionals and self-efficacy in the domains of transformational leadership (Younger, 2002); business, academe and government (Powell, 2010); industry (Garmon, 2008); and fundraising (Acebo, 2008). These studies, although unrelated to academic medicine, were particularly relevant to this study in that they targeted high-level professional women who somewhat paralleled the women academics in medicine in this study relative to ranking in their professions and achievement, often in male dominated environments. The studies also supported the use of Bandura's four sources of self-efficacy in the development of women leaders. A detailed discussion of each of these studies will be presented in Chapter 2.

From the comprehensive survey of literature databases, using key terms, it can be concluded that there is little research (only one study found) that addresses self-efficacy as associated with women leaders in academic medicine, and few studies (with mixed results) that address self-efficacy over time for a sample of people. The importance of self-efficacy to leadership success (Khoury, 2005; Woods, 2004) and the need to develop and advance more women into successful leadership positions in academic medicine highlights this deficiency of research regarding the development of leadership self-efficacy over time for this group of potential leaders. Moreover, it points to an important gap in the literature regarding the expansion of women leaders in academic medicine. Therefore, the problem of research addressed by this dissertation is the dearth of studies that explore self-efficacy and leadership development over time among women in academic medicine.

Theoretical Overview

Social cognitive theory, which describes human behavior in terms of the human aptitude to interpret and direct one's environment and reflect upon, evaluate, and influence one's self (Bandura, 1986), forms the theoretical framework for this study. Bandura's sources of self-efficacy refer to those sources that exist to instill people's beliefs about their ability to organize and execute the courses of action required to produce given results (e.g. performance accomplishments, vicarious experiences, verbal persuasions, and physiological states). Hence, according to Bandura (1997), self-efficacy is the fundamental theory upon which personal successes and achievements can be based. Bandura's theory of self-efficacy will be used to address the gap in the literature on the leadership development of women in academic medicine. More detail is provided in Chapter 2 and the self-efficacy theory is operationalized in Chapter 3.

Purpose and Research Questions

The purpose of this study is to explore the connection between self-efficacy and leadership development over a multi-year period among women in academic medicine following their participation in a specialized leadership development program. The overarching research question for this study is: Using the lens of Bandura's self-efficacy theory, how is self-efficacy involved in the leadership development over time of women in academic medicine? This study operationalizes this question in accordance with Bandura's four sources of self-efficacy through the following sub questions:

1. How do mastery experiences contribute to women's leadership development over time?

2. How do vicarious experiences contribute to women's leadership development over time?
3. How do verbal persuasions contribute to women's leadership development over time?
4. How do physiological states contribute to women's leadership development overtime?
5. How do the experiences of these women extend or suggest modifications in Bandura's self-efficacy theory?

Overview of Methodology

This qualitative study was conducted using an exploratory and descriptive content analysis research design to examine how self-efficacy influenced the leadership development of women in academic medicine over a multi-year period of time. The study was framed by the constructivist paradigm of inquiry and focused its investigation on the population of senior women faculty (i.e., associate and full professors) in academic medicine. The purposeful sample frame for the interview data collection consisted of all women who applied and had been accepted to ELAM in total since the program's founding in 1995. Invited participants for the ELAM project comprised 119 alumnae from the classes of 1996, 1997, 1999, and 2003 who had completed the program; 94 or 78% agreed to participate in at least one interview. Using the interview data from the classes of 1996, 1997, and 1999, this research design employed a qualitative content analysis approach to this inquiry; a thematic content analysis strategy for data analysis will address an in-depth description of events and sequences that contribute to self-

efficacy and leadership development over a multi-year period among women who participated in the ELAM program.

Significance of the Study

There are four reasons why this study is significant. First, in order to meet institutional and societal demands, academic medical centers must take advantage of the leadership potential of its women faculty and administrators (Bickel et al., 2002; Morahan & Bickel, 2002); this study's focus on a means to help women develop as leaders could contribute to addressing this situation. Second, there is no research that documents the connection between self-efficacy and leadership development over time among women in academic medicine. As such, this project will contribute to the overall understanding of women academics in medicine in leadership positions. Third, there is a need for further research that would provide data to persuade institutions that the development of women faculty is important and necessary (Morahan et al., 2001). Knowing more about the development of leadership self-efficacy over time could provide advocacy strategies. Finally, this project will contribute to the institutional knowledge base of medical schools in that by knowing more about how women progress to leadership positions, schools can provide assistance to help them ascend into these positions. Thus, by knowing as much as possible about self-efficacy and how it connects with leadership, institutions will then be in a better position to develop and maximize the leadership potential of their faculty, both men and women (Wolverton & Gonzales, 2000) as well as provide role models for women students and graduates. Based on these reasons, this project has practical implications for women in medicine, medical schools, and the field of women's leadership.

Definition of Key Terms

In order to promote clarity, this section contains operational definitions of terms used in this research study as follows:

Self-efficacy is the “people’s judgments of their capabilities to organize and execute courses of action required to attain designated types of performances” (Bandura, 1986, p. 391). See Chapter 2 for an expanded explanation of Bandura’s (1986, 1997) concept of self-efficacy.

Self-confidence refers to “the strength of belief; but does not necessarily specify what the certainty is about; it is a catchword...rather than a construct embedded in a theoretical system” (Bandura, 1997, p. 382). Chapter 2 provides further discussion on self-confidence and its differentiation from self-efficacy.

Performance accomplishments are the acquisition and integration of expert knowledge or outstanding ability accumulated over time that is “organized under continually changing conditions” (p. 86). (Bandura, 1997). Bandura synonymously refers to enactive mastery experiences as enactive mastery, mastery experiences, performance accomplishments, and performance attainment. For this dissertation, performance accomplishments will be the preferred term for this source.

Vicarious experiences (also referred to as modeling or social modeling) are “experiences mediated through modeled attainments” (Bandura, 1997, p. 86); the experiences acquired through the social comparisons of successful peer models observed as having similar leadership ability (1997).

Verbal persuasion, also known as social persuasion, refers to the cultivation of people’s belief in their capabilities through the conveyance of positive or inspirational

appraisals and structured activities that promote success and avoid premature situations of potential failure (Bandura, 1997).

Physiological and affective states, also referred to as physiological arousal, affective arousal, and emotional arousal is the intrapersonal and environmental information provided to gauge efficacy beliefs (Bandura, 1997).

Academic medicine is medicine that is practiced in an academic setting, such as a university or medical school (AAMC, 2007). It usually involves research, teaching and patient care - often a combination of all three. As of 2014, there were 141 accredited allopathic U.S. medical schools (AAMC, 2014).

Resilience refers to a dynamic process of positive adaptation and development while simultaneously facing a significant amount of adversity (Luthar, Cicchetti & Becker, 2000).

Sponsorship refers to advocating on someone's behalf, connecting them to important players, and expecting stellar performance and loyalty (Hewlett, 2013).

The Hedwig van Ameringen Executive Leadership in Academic Medicine (ELAM) Program develops the personal and professional skills of senior women faculty in preparation for senior leadership positions in medical and dental schools (About the ELAM Program, 2014).

Delimitations

All research studies have delimitations and limitations. Delimitations narrow the scope of a study and the populations for which generalizations can be made (Creswell, 2003). The population for this research study is all women academics in medicine, narrowed down to all women academics in medicine who have participated in the

Hedwig van Ameringen Executive Leadership in Academic Medicine (ELAM) Program. As a qualitative study, the results will not be generalizable but might provide some transferability to other women academics in medicine who are interested in rising in leadership roles. The results may also be useful to other women academics outside of medicine who are similarly interested in ascending in leadership contributions to colleges and universities. Finally, the results may be useful also for men aspiring to leadership positions in academic medicine.

Limitations

Limitations are included to identify potential weaknesses of the research project and thus, of its findings (Creswell, 2003). There were four limitations affecting this study. First, the results are based upon self-reported perceptions of the study participants. Although the expectation was that each participant would answer the questions truthfully, there is the possibility that participants might not respond truthfully or elaborate on experiences; in particular, to answer in a way that put their experiences with the ELAM program in a positive context. Second, the protocol used in the creation of the interviews in this dataset did not specifically ask about the constructs of Bandura's (1986) self-efficacy theory; thus, limiting participants' ability to respond to questions that would have included language directly related to the four sources of self-efficacy. Third, the current researcher did not conduct the interviews. The interviews were drawn from an existing dataset collected as part of a research project that focused primarily on the effectiveness of the ELAM program. However, this data set is the only such data collection related to women academics in medicine, and the interview protocol was of such a broad nature relative to leadership development that answers connected to

Bandura's (1986) concepts are potentially plentiful (see Appendices B and C for interview protocol). Finally, although it cannot be stated with certainty, the possibility existed that previous experience with and knowledge of the scholarship on self-efficacy development and leadership by the study participants, specifically Bandura's (1986) four sources of self-efficacy, may have biased the language; and concepts used by the interviewees to express its connection to their leadership development. The effects of these limitations upon the study will be addressed in Chapter 5.

Assumptions

An assumption is anything that is taken for granted rather than tested or checked (Fraenkel, Wallen & Hyun, 2011). Three assumptions undergirded this study. First, the study assumed that the reasons women went to ELAM were because of their interest in developing or strengthening their leadership skills. This assumption was based on ELAM's mission to develop the professional and personal skills women need to overcome the challenges of advancement to leadership positions in academic medicine (Mensel, 2010).

Second, the study assumed that the interview database included relevant material since protocol questions were designed to get subjects to talk about their leadership development in multiple ways (see Appendix B and C for interview protocol). This assumption was made because the ELAM curriculum provides opportunities for women to be exposed to leadership concepts and theories.

Third, it is assumed that Bandura's (1997) self-efficacy theory would be a helpful lens for seeking insight into how self-efficacy connects with the leadership development of women in academic medicine. This assumption was based on numerous empirical

studies (Acebo, 2009; Barling & Beattie, 1983; Cervone & Peake, 1986; Garmon, 2008; Gist, Stevens, & Bavetta, 1991; Powell, 2010; Saks, 1995; Sloma-Williams et al., 2009; Stajkovic & Luthans, 1998; Younger, 2002) that focused on the merits of Bandura 's (1977, 1986, 1993, 1997) theoretical approach in various disciplines.

Dissertation Overview

This dissertation is organized into five chapters. Chapter 1 presented a statement of the context of leadership among women in academic medicine, the problem of practice, the research problem statement, the theoretical overview, the overview of methodology, the purpose and research questions, the significance of the study, the definition of key terms, the delimitations and limitations, and the assumptions. The chapter concludes with a summary of the contents presented.

Chapter 2, the literature review, presents supporting literature for the study's research questions. The first section provides an overview of Bandura's (1997) self-efficacy theory and related research. The second section provides a foundation of the ELAM program as it relates to this study. This chapter concludes with a summary of the discussions presented.

Chapter 3, the research methodology, reviews the research questions and justifies the selected research paradigm. Theoretical constructs stemming from the review of the literature are provided, and the population and sample are described. Information on instrumentation and how the interview questions correspond with each another are available. Documentation of how data were collected into the dataset and how the researcher selected interviews from the dataset, consideration of human subjects, and procedures for treating and coding data were provided. Additionally, procedures for

analyzing and presenting data and addressing design issues were provided. Finally, a timeline for project completion was proposed.

Chapter 4 presents the results of the study and provides information to address each research question. Chapter 5 provides a summary and interpretation of the findings, implications for the study, and recommendations for further research.

CHAPTER 2: REVIEW OF THE LITERATURE

A review of the literature indicated that self-efficacy is integral to leadership success (Pajares, 1997; Bong & Clark, 1999; Locke & Latham, 2004; Ellis, 2010; Van Dyke, 2012). However, the current literature is deficient in studies that focus on the exploration of self-efficacy and how it influences the development of women leaders in academic medicine. The purpose of this study is to explore the connection between self-efficacy and leadership development over a multi-year period among women in academic medicine following their participation in a specialized leadership development program. To support this purpose, this chapter is organized into three sections. The first section provides an overview of Bandura's (1997) self-efficacy theory and an analysis of empirical studies related to self-efficacy and leadership development over time. The second section provides a foundation of the ELAM program as it relates to this study. This chapter concludes with a summary of the discussions presented.

Albert Bandura's Theory of Self-Efficacy

Albert Bandura is a psychologist who, for almost six decades, has been responsible for contributions to many fields of psychology, including social cognitive theory, behavioral therapy and personality psychology. He was also influential in the transition between behaviorism and cognitive psychology. Bandura is known as the originator of social learning theory and the theory of self-efficacy; and is also responsible for the influential 1961 Bobo doll experiment. In the experiment, Bandura made a film in which a woman was shown beating up a Bobo doll and shouting aggressive words. The film was then shown to a group of children. Afterwards, the children were allowed to play in a room that held a Bobo doll. The children immediately began imitating the

actions and words of the woman in the film (Bandura, 1973). The social learning theory proposed by Bandura has become perhaps the most influential theory of learning and development (Maddux, 2000). A 2002 survey ranked Bandura as the fourth most frequently cited psychologist of all time, behind B. F. Skinner, Sigmund Freud, and Jean Piaget, and as the top ranked living psychologist in works cited (Haggbloom, 2002). Bandura is widely described as the greatest living psychologist (Foster, 2003), and one of the most influential psychologists in history (Boeree, 2010). Bandura is currently a professor emeritus at Stanford University.

Bandura directed his initial research to the role of social modeling in human motivation, thought, and action. In 1963, Bandura and Walters wrote *Social Learning and Personality Development*, broadening the frontiers of social learning theory with the now familiar principles of observational learning and vicarious reinforcement. By the 1970s, Bandura was becoming aware that a key element was missing, not only from the prevalent learning theories of the day, but from his own social learning theory. In 1977, the publication of "Self-efficacy: Toward a Unifying Theory of Behavioral Change," identified the important piece of that missing element—self-belief (Bandura, 1977). By the mid-1980s, Bandura's research had taken a more holistic approach, and his analyses tended towards giving a more comprehensive overview of human cognition in the context of social learning. The theory he expanded from social learning theory soon became known as *social cognitive theory*. In 1986, he further developed self-efficacy as the core construct within social cognitive theory, a school of thought that radically departed from the previous research which typically connected cognitive development with a socio-structural network of influences (Bandura, 1986). Social cognitive theory has also been

described as “the theory heard ‘round the world’” (Smith, 2002, p. 30). Through real world connections via radio and television from Mexico to China, Bandura has educated millions, using characters to model ways to improve viewers and listeners’ lives (Smith, 2002).

This section will be presented in three parts: The origin of Bandura’s self-efficacy theory, Bandura’s four sources of self-efficacy, and research on self-efficacy and leadership development of women.

The Origin of Bandura’s Self-Efficacy Theory

The theoretical framework that supports this study is Bandura’s (1986, 1997) self-efficacy component of social cognitive theory. Bandura’s self-efficacy theory will be operationalized in Chapter 3. Although the term “self-efficacy” is of recent origin, interest in beliefs about personal control has a long history in philosophy and psychology (Maddux, 2000). The theories of effectance motivation (White, 1959), achievement motivation (McClelland, Atkinson, Clark, & Lowell, 1953), social learning (Rotter, 1966), and helplessness (Abramson, Seligman, & Teasdale, 1978) are just a few of the many theories that have sought to explore relationships between perceptions of personal competence human behavior, as well as psychological well-being (see also Skinner, 1995). However, Bandura’s 1977 article, “Self-Efficacy: Toward a Unifying Theory of Behavioral Change,” both formalized the notion of perceived competence as self-efficacy and offered a theory of how it develops and influences human behavior. What has appealed to so many researchers and theorists from so many different fields is that Bandura offered a construct that had intuitive and common sense appeal, yet defined this common sense notion clearly and embedded it in a comprehensive theory (Maddux,

2000). The essential idea was not new; what was new and important was the empirical rigor with which this idea could now be examined.

The self-efficacy frame, as illuminated by Bandura (1997), is essential for its suggestion that people's decisions about whether or not to attempt certain courses of action and about how long to pursue them are, to an important extent, determined by judgments of personal self-efficacy. Specifically, Bandura (1986) defines self-efficacy as "people's judgments of their capabilities to organize and execute courses of action required to attain designated types of performances" (p. 391). Applied to this research dissertation, women can expand their leadership interests and career options by a self-belief that they have or can develop the necessary capabilities for occupations traditionally dominated by men, especially when their actual ability is congruent (Bandura, 1997). Bandura's self-efficacy framework offers clues to the development of one's leadership skills and the level at which a leader functions (Khoury, 2005); and can positively affect leadership aspirations, as well as predict a leader's self-perception of his or her own effectiveness (Woods, 2004).

In *Social Foundations of Thought and Action*, Albert Bandura (1986) explained human functioning in terms of a model of triadic reciprocity which encompasses behavior, cognitive and other personal factors, and environmental events that influence each other interdependently. In Bandura's social cognitive theory, people are active agents who exercise control over their thoughts and behavior through five basic human capabilities. According to Bandura (1986), people's capability to symbolize helps them to create meaning. This means that people create meaning from their ability to mentally organize and rehearse observed behavior derived from people, television, or other visual

media. In this way, people represent their environment cognitively and can, therefore, anticipate the future. The capacity for forethought motivates people to adapt in the present to what they anticipate their future environment to be. The ability of individuals to learn by observation is also central to human development. Vicarious experiences allow people the opportunity to learn how to behave and to perform tasks without direct participation.

Social cognitive theory, according to Bandura (1986), highlights the importance of two other capabilities: self-regulation and self-reflection. People regulate their behavior by developing standards by which they evaluate their actions. Although environmental influences affect self-regulation, people continuously determine their own courses of behavior. In fact, people not only regulate themselves and their actions but also reflect on their experiences and their own thought processes. Through self-reflection, people gain understanding about the world around them. Individuals monitor themselves, analyze past events, and determine subsequent actions through reflection.

Because it emphasizes the dynamic interactions between people and their environments, Bandura's (1986) social cognitive theory provides a way to view career development contextually (Betz & Hackett, 2006; Lent, Hackett & Brown, 1996). According to Stajkovic and Luthans (1998), Bandura's SCT offers advances in both the fields of psychology and organizational behavior in unlocking human potential through (a) a broad, comprehensive scope beyond behaviorism and social learning; (b) a change in the view of learning to "knowledge acquisition through cognitive processing of information" (p. 63); and, (c) expansion of the concept of self-efficacy. Self-efficacy is noted as the "central integrative variable" (McCormick, 2001, p. 22). As one of the most

prominent cognitive mechanisms of personal agency, self-efficacy beliefs may be especially explanatory when attempting to understand the complexities of individual career development and selection.

Social cognitive theory. The social cognitive theory (SCT) stemmed from the social learning theory (SLT), which has a rich historical background dating back to the late 1800's. It has its origins in the discipline of psychology, with its early foundation being laid by behavioral and social psychologists. The SLT context was officially launched in 1941 with Miller and Dollard's publication of *Social Learning and Imitation*. Their work also expanded on the reciprocal relationship between environment and behavior, while incorporating the beginnings of an internal mediating variable (in this case, drives) into the model (Miller & Dollard, 1941).

From Miller and Dollard's work came several versions of the SLT to which researchers currently subscribe. These versions all share the three basic tenets of response consequences, vicarious learning, and social persuasion or modeling (Cloninger, 2004; Crosbie-Brunett & Lewis, 1993; Jones, 1989; Woodward, 1982). Response consequences influence the likelihood that a person will perform a particular behavior again in a given situation. Vicarious learning suggests that humans can learn by observing others. The modeling tenet posits that individuals are most likely to model behavior observed by others with whom they identify. These three tenets are represented throughout the work of several prominent SLT theorists, including Rotter, Sears, Akers, Mischel, Sutherland, and Bandura. Julian Rotter (1954) focused on the application of SLT to clinical psychology. Robert Sears (1951) focused on the application of SLT to socialization processes. Ronald Akers' SLT integrated the differential association theory

of Sutherland (1947) with the learning of operant conditioning (Skinner, 1953) and observational learning (Akers, Krohn, Lanza-Kaduce & Radosevich, 1979; Akers & Lee, 1996; Bandura & Walters, 1963). Walter Mischel (1973) is known for his cognitive social learning model of personality that focuses on the specific cognitive variables that mediate the manner in which new experiences affect the individual.

Albert Bandura has led the efforts on cognitive SLT development (Bandura, 1977a; 1978; 1986; 1989; Bandura & Walters, 1963). Bandura's (1997) SCT is based on the concept of triadic reciprocal determinism. In other words, behavior, cognition and other personal factors, and environmental influences all operate as interacting determinants, influencing each other. This study's theoretical underpinning is based on Bandura's social cognitive theory; and thus, was discussed as a separate heading.

Self-efficacy defined. According to Bandura (1997), decisions that people make about whether or not to attempt certain courses of action and about how long to pursue them are, to an important extent, determined by judgments of personal self-efficacy. He defines self-efficacy as "people's judgments of their capabilities to organize and execute courses of action required to attain designated types of performances" (Bandura, 1986, p. 391). Closely related to self-efficacy are the concepts of self-confidence and resilience. Bandura offered a distinction between the two. He posited that self-confidence refers to firmness or strength of belief but does not specify its direction; self-efficacy implies that a goal has been set (1986, 1990). Additionally, self-efficacy is differentiated from self-confidence by McCormick and Martinko's (2004) examination of leader social cognitions: self-confidence is a stable, trait characteristic; and, self-efficacy is "malleable, capable of being changed given the right conditions" (p. 6). Gist and Mitchell (1992)

further asserted that self-efficacy is task or role specific; self-confidence is general in nature. Perceived self-efficacy, according to Wood and Bandura (1989), is defined as “people’s beliefs in their capabilities to mobilize the motivation, cognitive resources, and courses of action needed to exercise control over events in their lives” (p. 364).

Resilience, which is the ability to bounce back from adversity (Bonanno, Brewin, Kaniasty, & La Greca, 2010), correlates from moderate to high with self-efficacy. It refers to rapidly returning to baseline functioning after exposure to trauma. However, it is distinguished from self-efficacy beliefs in that self-efficacy may be present even in the absence of stressors (Bandura, 1997; Diehl, Semegon, & Schwarzer, 2006). Even so, self-efficacy has sometimes been conceptualized as one component of resilience (Rutter, 1987; Tedeschi & Calhoun, 1995; Werner & Smith, 1982).

According to Bandura (1997), human behavior is extensively motivated and regulated anticipatorily by cognitive self-influence. Among the mechanisms of self-influence, none is more focal or pervading than belief of personal efficacy. Unless people believe that they can produce desired effects and forestall undesired ones by their actions, they have little incentive to act. Whatever other factors may operate as motivators, they are rooted in the core belief that one has the power to produce desired results (Bandura 1997, 1986). That self-efficacy belief as a vital personal resource is amply documented by meta-analyses of findings from diverse fields of functioning under laboratory and naturalistic conditions (Holden, 1991; Holden, Moncher, Schinke, & Barker, 1990; Lunenberg, 2011; Multon, Brown, & Lent, 1991; Stajkovic & Luthans, 1998). Thus, perceived self-efficacy is a determinant of goal aspirations and outcome expectations.

Efficacy beliefs affect self-motivation through their impact on goals and aspirations. It is partly on the basis of efficacy beliefs that people choose what goal challenges to undertake, how much effort to invest in the endeavor, and how long to persevere in the face of difficulties (Bandura, 1997; Locke & Latham, 1990). When faced with obstacles, setbacks, and failures, those who doubt their capabilities slacken their efforts, give up, or settle for mediocre solutions. Those who have a strong belief in their capabilities redouble their effort to master the challenges. Perceived efficacy, similarly, plays an influential role in the incentive and disincentive potential of outcome expectations. The outcomes people anticipate depend largely on their beliefs of how well they can perform in given situations. Those of high efficacy expect to gain favorable outcomes through good performance, whereas those who expect poor performances of themselves conjure up negative outcomes (Bandura, 1997).

In theories of motivation such as expectancy-value theories (Eccles, 1983; Fishbein, 1972; Wigfield, 1994; Wigfield & Tonks, 2002), motivation is governed by the expectation that a given behavior will produce certain outcomes and the value placed on those outcomes (Fishbein, 1972). This type of theory includes only one of the two belief systems governing motivation. People act on their beliefs about what they can do, as well as on their beliefs about the likely outcomes of performance. There are countless activities which, if done well, produce valued outcomes, but they are not pursued by people who doubt they can do what it takes to succeed (Beck & Lund, 1981; Betz & Hackett, 1986; Wheeler, 1983). They exclude entire classes of options rapidly on self-efficacy grounds without bothering to analyze their costs and benefits. Conversely, those of high efficacy expect their efforts to bring success and are not easily dissuaded by

negative outcomes (Bandura, 1997). Thus, the predictiveness of expectancy-value theories are further enhanced when the self-efficacy determinant is included (Wheeler, 1983).

Rational models of motivation and decision making exclude efficacy judgment, sacrifice explanatory, and predictive power. (See Appendix D for other theories of motivation.) Perceived self-efficacy not only sets the slate of options for consideration, but also regulates their implementation. Making a decision in no way ensures that individuals will execute the needed course of action successfully, and stick to it in the face of difficulties. A psychology of decision making requires a psychology of action grounded in enabling and sustaining efficacy beliefs. Beliefs of personal efficacy shape whether people attend to the opportunities or to the impediments that their life circumstances present and how formidable the obstacles appear (Krueger & Dickson, 1993; 1994). People of high efficacy focus on the opportunities worth pursuing, and view obstacles as surmountable. Through ingenuity and perseverance, they figure out ways of exercising some control even in environments of limited opportunities and many constraints. Those beset with self-doubts, dwell on impediments which they view as obstacles over which they can exert little control and easily convince themselves of the futility of effort. They achieve limited success even in environments that provide many opportunities (Bandura, 1997).

In sum, Albert Bandura's (1997) self-efficacy construct is a derivative of social cognitive theory and is essentially defined as a belief in one's own ability to complete tasks and reach goals. Unique from other theories related to perceived personal competence, self-efficacy offers a set of common sense principles that address how that

capability develops and influences human behavior. The essential idea of triadic reciprocal determinism (behavior, cognitive and other personal factors, and environmental events) and how it influences interdependence, appeals to numerous researchers and theorists from different disciplines.

In this study, self-efficacy theory provides guidance for exploring how women in academic medicine make decisions on attaining goals and how their environment and other personal factors influence those decisions. Hence, self-efficacy theory, which will be operationalized in Chapter 3, is the appropriate lens for looking at the development of women's perceived personal competence in executing behaviors that promote goal attainment.

Bandura's Four Sources of Self-Efficacy

According to Bandura (1997), "self-efficacy beliefs are constructed from four principal sources of information": enactive mastery experiences, vicarious experiences, verbal persuasion, and physiological and affective states (p. 79). These four sources drive individual perceptions of capability, strength, and vulnerability (Bandura, 1989). Bandura synonymously refers to enactive mastery experiences as enactive mastery, performance accomplishments, and performance attainment. For this dissertation, performance accomplishments will be the referenced term for this source. This section will discuss the four sources of self-efficacy and summarize their relevance to this study.

Performance Accomplishments. Performance accomplishments, as described by Bandura (1997), are the acquisition and integration of expert knowledge or outstanding ability accumulated over time that is "organized under continually changing conditions" (p. 86). This personal mastery of experiences is further described as the most powerful

and influential source of self-efficacy (Bandura, 1977, 1986, 1997; Chowdhury et al., 2002; Dawes, Horan & Hackett, 2000; Wise & Trunnell, 2001; Wood & Bandura, 1989). At any given time, it determines the decision to perform a task, the amount of effort to be expended, and the level of persistence posited (Gardner & Pierce, 1998). Smith (2002) reasoned that the dominance of performance accomplishments is attributed to one's own effort and skill and is based on experiences that are direct and personal.

According to Bandura (1997), performance accomplishments provide, "The most authentic evidence of whether the individual is capable of successfully completing the task" (p. 80). However, judgments of efficacy based on performance accomplishments may vary depending on people's interpretive biases, the perceived difficulty of the task, how hard they worked at it, how much help they received, the conditions under which they performed, their emotional and physical state at the time, their rate of improvement over time, and biases in how they monitor and recall accomplishments (Bandura, 1997). The broad significance and potential of self-efficacy as a filtering mechanism of experiences and beliefs leading to changes in performance makes self-efficacy and understanding its influential sources central to this study on self-efficacy and its connection to the leadership development of women in academic medicine.

Vicarious Experiences. Vicarious experiences, also referred to as modeling or social modeling, are experiences "mediated through modeled attainments" (Bandura, p. 86). Self-efficacy is affected through a social comparison process where people judge their capabilities in relation to the capability of others (Bandura, 1977, 1986, 1997; Wood & Bandura, 1989). Vicarious experiences are believed to be the second most effective way to develop self-efficacy (Chowdhury et al., 2002; Wise & Trunnell, 2001). In fact, it

has been argued that virtually anything that is learned from direct experience can also be learned vicariously (Bandura, 1986; Rosenthal & Zimmerman, 1978).

According to Bandura (1997), “Proficient or competent models build self-beliefs of capability by conveying to observers effective strategies for managing different situations” (p. 88). The behavior of competent models and their expressed ways of thinking transmit knowledge and instruct observers on effective skills and strategies for managing environmental demands (Bandura, 1986a). In social modeling, the individual observes a response and consequences of someone else (i.e., the model). Just by watching, the observer can learn a great deal from the model. The perceived similarity between the observer and the model (based on the observer’s perceptions), determines the level of influence of social modeling (Bandura, 1977). In other words, observing another’s successes and failures allows individuals to evaluate their own capabilities. For example, using the context of this study, a woman who observes another woman colleague with a similar background successfully accomplish the task of managing a department or leading a medical school learns from this experience, and also gains confidence, which encourages engagement in similar experiences as they arise (Bandura, 1977; Gist & Mitchell, 1992).

This highlights another important aspect of SCT; each person’s individual perception of the world and its potential outcomes creates a unique personality. Vicarious experiences allow individuals to enhance information-processing skills and acquire judgmental standards (Bandura, 1986; Rosenthal & Zimmerman, 1978). Vicarious experiences or social modeling via observed examples of accomplishments of women leaders in academic medicine is another means for aspiring women to gain

knowledge about how best to enhance their skills and strengthen their capability to achieve leadership positions in the male-dominated field of academic medicine.

Verbal Persuasion. Verbal persuasion, also known as social persuasion, is the cultivation of people's belief in their capabilities through the conveyance of positive or inspirational appraisals and structured activities that promote success and avoid premature situations of potential failure (Bandura, 1997); thus, providing another way to increase people's self-efficacy (Bandura, 1977, 1986, 1997; Wood & Bandura, 1989). Verbal persuasion is thought to be the third most effective way to develop self-efficacy (Chowdhury et al., 2002; Wise & Trunnell, 2001). Bandura (1997) posited that verbal persuasion alone "may be limited in its power to create enduring increases in perceived efficacy, but it can bolster self-change if the positive appraisal is within realistic bounds" (Bandura, 1997, p. 101). Wise and Trunnell (2001) demonstrated that verbal persuasion is most effective when following a performance accomplishment.

Wood and Bandura (1989) argued that, "If people receive realistic Encouragement, they will be more likely to exert greater effort and to become successful than if they are troubled by self-doubts" (p. 365). Wood, Pool, Leck and Purvis (1996) showed that opposition by persuasive sources had an impact only when these sources were judged self-relevant. Persuasion and subsequently self-efficacy are improved through merely receiving praise or being told that another has confidence in their abilities to perform the task successfully. According to Bandura (1977), the most common forms of persuasion are verbal encouragement, mentoring, coaching, and feedback monitoring. However, in a recent study related to mentorship and sponsorship, Hewlett (2013) found that sponsorship makes a measurable difference in career progress. She asserted that

mentors act as a sounding board, offer advice as needed and support and guidance as requested, expecting very little in return. In contrast, a sponsor is vested and advocates on behalf of their protégés, connecting them to important players and assignments; thereby, expecting stellar performance and loyalty. Although both are important, Hewlett declares that sponsorship increases women's chances of actually advancing to more senior level positions. Verbal persuasion can be self-affirming for individuals who have some reason to believe that they can produce effects through their actions (Chambliss & Murray, 1979) and sponsorship should be included in the discussion on how those actions can help advance their leadership careers (Hewlett, 2013). Thus, to set this within the context of this study, this source of self-efficacy, especially when their accomplishments are supported by their colleagues or bosses, can promote the development of skills and personal efficacy in women who seek leadership positions in academic medicine.

Physiological and Affective States. In addition to the vicarious experiences previously discussed, observing others can also result in powerful physiological arousal (Bandura, 1989). People's judgments concerning their physiological states, also known as physiological arousal, affective arousal (Smith, 2002), and emotional arousal (Conger & Kanungo, 1988; Hagen et al., 1998) is the fourth determinant of self-efficacy (Bandura, 1986; Wood & Bandura, 1989). Physiological arousal, affective states, or affective arousal has been found to be the least important determinant of the four sources (Burke-Spero & Woolfolk, 2003; Chowdhury et al., 2002). Nonetheless, like the other sources (performance accomplishments, vicarious experiences, and verbal persuasion), Bandura (1986) argued that physiological arousal is still a distinct self-efficacy source. Conger and Kanungo (1988) further described this phenomenon as "emotional arousal

states that result from stress, fear, anxiety, depression, and so forth, both on and off the job that can lower self-efficacy expectations. Individuals are more likely to feel competent when they are not experiencing strong aversive arousal. Empowerment techniques and strategies that provide emotional support for subordinates and that create a support and trusting group atmosphere can be more effective in strengthening self-efficacy beliefs” (p. 479).

In Bandura’s (1997) description, individual explanations of somatic states are viewed as indicators of vulnerabilities. In other words, physiological arousal in connection with self-efficacy refers to individuals attributing a physiological condition to personal judgments. For example, tension is attributed to incapability (Wood & Bandura, 1989). Bandura (1989) hypothesized that arousal is most intense when the experience of another is personalized, or when one truly takes the perspective of another. Betz & Hackett (2006) suggested that learning new behaviors increases arousal and that a high level of physiological arousal often makes it impossible to perform. According to Hackett and Betz (1981), anxiety or physiological arousal may be considered a “co-effect” rather than a “cause” of low self-efficacy. It may be induced when an individual lacks the confidence to perform a specific behavior. In most incidents, the presence of anxiety decreases both self-efficacy and the successful performance of the new behavior. However, moderate arousal states may enhance performance (Betz & Hackett, 2006). The cues from physiological arousal can contribute to the perceived efficacy of women seeking leadership positions in academic medicine.

Physiological arousal can affect perceptions of competence, analysis capabilities, and motivation, all of which are important elements of leadership self-efficacy.

Physiological arousal is relevant to this study because such reactions to task stimuli can shape women's attributions about their leadership capabilities (Bandura, 1997), particularly in a specialized field such as academic medicine where women lag behind men in ascending to leadership positions.

In sum, Albert Bandura (1977, 1986, 1995, and 1997) developed self-efficacy as a critical component of social cognitive theory which was based on the interacting influences of behavior, cognition, and the environment (1997). He offered the four sources of self-efficacy as an explanation of how individuals develop their perceived personal competence. Collectively, the four sources summarize the perspective of self-efficacy from the standpoint of how they influence individual's perceived leadership capability. Moreover, these four sources provide the lens for looking at leadership development and lay the foundation for addressing the research questions of this study.

Research Related to Bandura's Self-Efficacy and Leadership Development for Women

Albert Bandura's self-efficacy construct "has been proven to be one of the most core concepts in contemporary psychology research" (Judge, Jackson, Shaw, Scott, & Rich, 2007, p. 107). It has also been examined in more than 10,000 studies in the last 25 years, with over 800 journal articles exploring self-efficacy in industrial/organizational psychology alone (2007). A search of scholarly literature identified only one study (Sloma-Williams, McDade, Richman & Morahan, 2009) related to this dissertation, exploring self-efficacy and the leadership development of women in academic medicine, which will be presented later in this section. However, several dissertation studies were identified that addressed women professionals and self-efficacy in the domains of

transformational leadership (Younger, 2002), business, academe and government (Powell, 2011), industry (Garmon, 2008) and fundraising (Acebo, 2008). Table 4 provides a synopsis of the designs, samples and findings of the research conducted by Younger, Powell, Garmon, Acebo, and Sloma-Williams et al. A description and critique of each of the studies follow.

Younger (2002) Regarding Women and the Relationships among Self-Esteem, Self-Efficacy, Androgyny, and Transformational Leadership Behavior.

Younger (2002) examined the relationships between the constructs of self-esteem, self-efficacy, psychological androgyny, and leadership style among career and professional women at one point in time. The purpose of the doctoral dissertation study was to investigate the pattern of interrelationships among the previously stated constructs within a context of path analysis, which is used to describe the directed dependencies among a set of variables. Although there were no research questions identified in the dissertation study, the researcher stated the following anticipated outcomes of the study: (a) Women's degree of self-efficacy would be the principal influence on the measure of transformational leadership style; (b) A high degree of self-efficacy would lead to increased transformational leadership behaviors; (c) The degree of self-esteem would have a positive and significant influence on self-efficacy and leadership style; and (d) An androgynous sex role orientation would both directly and indirectly influence a transformational leadership style.

While transformational leadership style was the ultimate variable in the study (Younger, 2002), the main variable of interest was leader self-efficacy; the factors that influence it, and its role as an influence on transformational leadership behavior. A

Table 4

*Summary of Relevant Research on leadership development among women professionals
at a Single Point in Time*

Researcher(s)	Study Design	Sample	Key Findings
Younger (2002)	Qualitative, positivistic paradigm utilizing the Bern Sex Role Inventory (BSRI), Multi-Factor Leadership Questionnaire, Leader Form (MLQ), Rosenberg Self-Esteem Scale (RSE), and Leadership Self-Efficacy Scale. Quantitative data analysis conducted using correlational matrix and path analysis.	213 public and private sector women identified as leaders within their organizations	Transformational leadership style significantly related to self-efficacy; self-efficacy significantly related to androgyny, self-esteem and education.
Powell (2011)	Qualitative, interpretivist model, open-ended interviews containing 14 questions on social networking, 14 questions on mentoring relationships and 20 questions related to entrepreneurial self-efficacy.	14 female owners of small government contracting companies in DC, VA and MD	Entrepreneurial self-efficacy perceptions grows as experience increases; both formal and informal mentoring positively impact entrepreneurial leadership and self-efficacy.
Garmon (2008)	Qualitative, phenomenological methodology, open-ended interviews comprised of nine questions and nine-sub-questions related to the sources of self-efficacy belief.	20 female executive leaders of Credit Unions in the southeastern United States	Verbal persuasion and vicarious learning experiences most heavily influence formation of beliefs regarding capacity to obtain positions in leadership.

Researcher(s)	Study Design	Sample	Key Findings
Acebo (2008)	Mixed-method design, qualitative data collected through face-to-face, semi-structured interviews via the General Perceived Self-efficacy (GSE) scale, and qualitative data collected via the Revised Causal Dimension Scale (CDSII) and 10 questions from the GSE related to organizational culture, leadership style, mentoring and personal sacrifices made for career advancement.	Female members of the Council for Advancement and Support of Education (CASE) District IV identified as chief advancement officers chief development officers or other advancement professionals. Qualitative sample N=9; quantitative sample N=207.	Self-efficacy was an important variable related to perceptions of leadership success; individual successes are internally driven without mentorship assistance; success was attributable to both internal and external drives, without the assistance of mentoring.
Sloma-Williams, McDade, Richman and Morahan (2009)	Exploratory single-case study utilizing qualitative interviews.	41 Fellows of the Hedwig van Ameringen Executive Leadership in Academic Medicine (ELAM) Program for Women classes of 1996 (N=19), 1997 (N=7) and 1999 (N=15).	Growth of leadership self-efficacy is a gradual process; self-efficacy growth in leadership development is a collaborative process, involving the support of others and self-testing/self-reflection; both informal and formal support networks aid in the development and success of female leaders.

quantitative research design was employed to explore the previously identified anticipated outcomes.

Although not explicitly stated, based on the content and structure of the data collection and analysis, it was apparent that the researcher used a positivistic paradigm of inquiry for this study, with survey research methodology providing the quantitative data for analysis. Statistical analyses were conducted using an intercorrelation matrix and path analysis. Path analysis was accomplished via the GEMINI program, developed by Wolfe and Ethington (1985).

The target sample of the study consisted of 213 professional women working in both the public and private sectors, who were identified as leaders within their organizations. Several instruments were utilized for data collection. The Bern Sex Role Inventory (BSRI) was used to measure sex role orientation, and androgyny (Bern, 1978). Scores from the Multi-Factor Leadership Questionnaire, Leader Form (MLQ) (Bass & Avolio, 1991) was used to quantify transformational leadership. The construct of global sense of self-worth and self-confidence was quantified by the Rosenberg Self-Esteem Scale (RSE) (Rosenberg, 1965). Finally, the self-efficacy construct was measured via the Leadership Self-Efficacy Scale (Wulff & Steitz, 1966). As documented in the dissertation, each instrument has acceptable test-retest reliability, with scores ranging from .54 - .82 for the MLQ to .76 - .94 for the BSRI.

Forty-seven percent (47%) of the target sample of 213 women participated in the surveys. Of the 100 respondents, the majority were White (84%), married (60%), between the ages of 40-49 (41.2%) and had a median household income greater than \$100,000 (41.9%).

On average, the respondents had 15.5 years of work experience in their current professional field. Ninety-five percent (95%) held positions of responsibility in their

organizations: 28% were directors or above, 28% were in the professions (attorney, doctor, pilot, judge), 15% were managers, 12% were business owners, 10% were educators, and 2% were supervisors. Fifty percent held graduate degrees and 36% had college degrees.

The results of correlational analysis indicated that transformational leadership style had a moderate positive, statistically significant, relationship to self-efficacy ($r=.56$, $p < .001$), androgyny ($r=.53$, $p<.001$) and global self-esteem ($r=.40$, $p<.001$). Transformational leadership style was also found to have a positive relationship to education, but with less magnitude than the three aforementioned variables ($r=.15$, $p<.05$). Results of path analysis indicated that leadership self-efficacy, global self-esteem, androgyny, education, and age explained 45% of the variance in transformational leadership style, $F(5,207)=33.66$, $p<.001$.

As noted by Younger (2002), key findings in this study were that androgyny was found to lead to higher levels of leadership self-efficacy and that global self-esteem appeared to have a significant role on transformational leadership. Younger's research supports Bandura's notion that those who have a higher level of educational attainment have developed broader perspectives, have been exposed to a variety of experiences, and have knowledge, skills, and credibility that would lead to a greater degree of self-efficacy (Bandura, 1997; Younger, 2002).

Younger's (2002) research included: (a) a design that allowed for the simultaneous examination of both direct and indirect influences significantly related to the successful emergence of a leader; (b) the diversity of the sample population relative to their career path and the average length of work experience in their current field of work;

and (c) a sample size large enough to lend confidence to the reliability of the findings. However, with regard to the present dissertation and in critique of the study, results should be interpreted with caution for several reasons. First, although the sample size was large and the population diverse in many respects, the sample consisted of White, educated professional women and therefore, the study's findings are not generalizable to different racial, ethnic, and socioeconomic groups or to women with less-than college-level education. Second, the majority of the women in the study were already in leadership roles; therefore, it is not possible to determine if their responses would have been different had data been collected prior to, or early on in, their leadership careers.

Finally, Younger's study examines only transformational leadership, which may not fully explore how women who do not adopt this style of leadership emerge as leaders. Nonetheless, the finding of relevance to the current dissertation was the assertion by Younger (2002) that higher levels of educational attainment, also construed as performance attainment (a source of self-efficacy), would lead to increased self-efficacy. Further, the author's finding that exposure to various experiences (including mentoring and modeling), and that the expansion of knowledge and skills enhances self-efficacy, supports the current study on the role of self-efficacy in the leadership development of women in academic medicine.

Powell (2010) Regarding the Impact of Mentoring and Social Networks on the Entrepreneurial Leadership Characteristics, Self-Efficacy, and Overall Business Success of Women Who Own Small Government Contracting Businesses. In this doctoral dissertation, Powell (2010) examined the entrepreneurial leadership characteristics and entrepreneurial self-efficacy perceptions of women who owned small

government contracting businesses at a single point in time. The focus of this empirical research was to explore the impact that mentoring and social networks played on the development of both leadership characteristics and perceptions of entrepreneurial self-efficacy. The goal of the study was to explore the experiences of successful female entrepreneurs to identify factors perceived as important in helping achieve entrepreneurial success.

Powell (2010) employed a phenomenological methodology to gather the qualitative data. In particular, the researcher used semi-structured, recorded, and transcribed telephone interviews with a purposeful target sample of 14 (N = 14) female entrepreneurs who own successful businesses. The research paradigm was not explicitly identified. However, the content and structure of the data collection and analysis indicate that the researcher used the interpretivist model of research inquiry for this study. This methodology was appropriate, given that the purpose of the study was exploratory in nature – investigating the impact of mentoring and social networking on entrepreneurial leadership characteristics and entrepreneurial self-efficacy perceptions. In-depth interviews provided the qualitative data to address the stated research questions.

Dynamic Business Search, Central Contracting Register, and Small Business Search databases were used to identify the target sample – 145 female small business owners, as defined by their titles and business categories. Of the 145 individuals who were invited via email to participate in the study, 10 agreed to participate (14.5% response rate). Using the snowball technique, four additional participants were recruited, resulting in a sample size of 14. The sample consisted of female entrepreneurs with businesses located in the District of Columbia (N=2), Virginia (N=2), and Maryland

(N=10) who had started and maintained small government contracting businesses that fell into one of two categories: newly established (in business less than 5 years), or established (in business 5 years or longer). Using a purposive, criterion-based sample selection, the sample of 14 female entrepreneurs were equally proportioned in the two categories (7 in the category of less than 5 years) and (7 in the category of 5 years or longer). The participants ranged in age from 20 to 69 with a mean age of 44.

The interview instrument included 20 questions related to entrepreneurial leadership characteristics, 14 questions on social networks, 14 questions on mentoring relationships, and 20 questions related to entrepreneurial self-efficacy. Powell (2010) utilized the modified van Kaam (1966) and Moustakas (1994) seven-step procedure to guide analysis of the data. For the final step of extracting themes from all the interviews and making a composite summary, the researcher employed NVivo 10 software to analyze each interview for similar phrases or themes. Additionally, the researcher used content analysis to compare the emerging themes with theories in the peer-reviewed literature, incorporating those themes into the research findings. Both manual coding, with the use of member checking, field notes and journaling, memoing, as well as the themes extracted from the NVivo 10 software were presented in a systematic process that added to the strength of the study.

Results of the research were categorized in the areas of entrepreneurial leadership characteristics, social networks, and mentoring. Being prudent, tenacious, and possessing good communication skills were seen by respondents as invaluable leadership characteristics. Being in social networks was viewed as positive and very necessary to effective leadership skills and business success. Mentoring relationships were seen as

valuable to business leadership and success. However, most respondents indicated they did not have formal mentoring relationships; rather, they had several informal 1:1 mentoring relationships that positively impacted personal development; thereby, indirectly impacting business success. Mentoring relationships also appeared to increase entrepreneurial leadership skills such as communication, public speaking, networking, and relationship building. Lastly, respondents reported that the coaching and advice received from mentoring relationships increased their self-confidence and likewise, their self-efficacy perceptions.

Results of this study demonstrated that these leaders had a high level of self-efficacy perception; they were confident, driven, passionate, and determined, and had the mentality that they would not give up or quit. Additionally, their entrepreneurial self-efficacy perceptions grew as they obtained more experience, both in the business and government sectors. The participants reported that they relied on reflection to evaluate how far they had progressed professionally, in order to have the confidence to know that when setbacks arose they would be able to overcome them. Their past successes drove their levels of self-efficacy and, as a result, they also had a high level of internal locus of control. They understood what was in their scope of control and what was not. They took their failures personally, but were able to learn from them to avoid repeating the same mistakes.

While the results of Powell's (2010) research are intriguing, two limitations of the study must be noted. The geographical location of the women represented in the sample (DC, MD, and Northern VA) makes it difficult to generalize the study across all geographical locations. Similarly, experiences shared by a small number of women

($N=14$) in a very specialized business arena, government contracting, may not be reflective of experiences of women in leadership roles in other arenas.

Despite the limitations of Powell's (2010) research, all of the findings include information of some relevance to the current researcher's dissertation; namely, the advantages participants derived from their social networks and mentoring relationships, which were akin to vicarious experiences, one of Bandura's sources of self-efficacy. The participants reported that social networks increased their self-confidence, and through interacting with other successful female entrepreneurs, helped boost their belief that they, too, could be successful if they persevered. Most informative to this researcher's dissertation, was the finding relative to the impact of participants' past successes on their self-efficacy. As noted in the literature, past successes or performance attainments (another source of self-efficacy), increases self-efficacy over time and creates a sense of personal agency (Bandura, 1997). Accordingly, the participants of the Powell (2002) study indicated that their entrepreneurial self-efficacy perceptions grew as they gained more experience and that through reflection (a concept related to Bandura's idea of personal agency), they maintained their confidence to surmount the challenges that would appear.

Garmon (2008) Regarding Antecedents of Self-Efficacy Beliefs: A Phenomenological Investigation of Women Leaders in the Credit Union Industry.

Garmon's (2008) doctoral dissertation research was a qualitative investigation of women leaders in the credit union industry at one point in time. The purpose of the study was to complement the existing quantitative research investigating the link between self-beliefs and the achievement of leadership status among women. Specifically, this dissertation

examined the personal stories of 20 women who pursued and achieved executive leadership status in the credit union industry in the southeastern portion of the United States. The research questions that guided this study were:

1. What specific factors facilitate or inhibit the development of self-efficacy beliefs of women executive leadership positions within the credit union industry?
2. How do self-efficacy beliefs influence the career paths of women who have obtained leadership status within the credit union industry?

To address the research questions, Garmon employed a phenomenological methodology to gather the qualitative data. Specifically, the researcher used a purposeful sampling strategy with an in-depth, standardized, open-ended interviewing technique. The content and structure of the data collection and analysis supported the researcher's use of phenomenological inquiry.

The sample population of 20 women leaders (N = 20) was selected based on their occupation of executive or senior leader within the credit union industry in the southeastern region of the United States. Specifically, the sample consisted of 18 participants who worked and resided in Georgia and two in Florida. Executive leadership positions were defined as Chief Executive Officer (CEO), Chief Operating Officer (COO), or Chief Financial Officer (CFO). The participants ranged in age from 42 to 60 years, with each having held an executive management position within the credit union industry for a minimum of 2 years. The credit unions represented in the study ranged in asset size from \$50 million to \$1 billion.

Access to the participants was achieved through personal and professional contacts and data were collected via face-to-face interviews. The study employed an interview protocol adapted from Zeldin's (2000) and Zeldin and Pajares' (2000) research on sources of self-efficacy beliefs for women and men who had pursued careers in mathematics and technologies. The interview instrument was comprised of nine questions and nine sub-questions related to the sources of self-efficacy belief. General background data were gathered to profile each subject, along with participant descriptions of their current occupations; particular attention was paid to sources of self-efficacy. Additional questions were asked to determine the physiological indexes of self-efficacy formation and how these beliefs advanced their career paths. Attempts were made to discover how the participants learned from others and the extent to which verbal persuasion influenced their self-efficacy beliefs.

The study sought to understand how the women's self-efficacy beliefs were formed and ultimately influenced their rise to leadership status. In particular, the study sought to illuminate the sources of self-efficacy that women draw upon in navigating through the path to leadership. The researcher used Schweitzer (1998) and Giorgi's (1997) six-stage adaptation of phenomenological protocol to guide the analysis of the data. The researcher also used NUD*ist software to assist in coding and categorizing information. Triangulation was accomplished through the interview protocol that covered the content over different time dimensions, observations of body language, content over different time dimensions, observations of body language, personal gestures or other mannerisms that provided insight; extraction of categories and themes using NUD*ist software; and Bandura's self-efficacy theory. To establish internal validity of

the data, the researcher maintained an audit trail of all recorded tapes and transcripts as well other information gathered on each participant as well as a journal documenting the progression of the study.

Findings of Garmon's (2008) study were presented relative to the two research questions. The results indicated that verbal persuasion was identified as the most critical foundation of self-beliefs among respondents. It was noted that all of the participants felt that what others said to them both during and after their rise to leadership positions was of paramount importance. Respondents also related the importance of self-efficacy for professional women to successfully master and maintain leadership positions in the industry. Further, the study found that mastery experiences and physiological cues were not interpreted as significant to the respondents' self-belief. Further, the two sources (mastery experiences and physiological cues) were only mentioned in conjunction with the sources of vicarious experiences and verbal persuasion, asserting that it was mentors and family and friend encouragement that were responsible for their success.

Based on results of the study, Garmon (2008) concluded that women rely most heavily on verbal persuasion and vicarious learning experiences in forming their beliefs about their capacity to obtain a leadership position. As with results from Younger (2002) and Powell (2010), results of the research conducted by Garmon support the use of Bandura's (1997) four principle sources of self-efficacy development.

Garmon's (2008) research was informative. However, several limitations were noted. First, the research was restricted to women professionals in the credit union industry in a particular geographic region which limits generalizability to other populations in other regions. A more diverse sample may have demonstrated greater

clarity. Second, the participants were already in leadership positions; so it is not possible to determine if their responses would have been different prior to or early on in their careers. Third, because the researcher was employed as a Vice President in the industry at the time of the study and was the primary instrument for gathering and analyzing data, researcher bias may have transcended interpretation and influenced data analysis. Finally, there was no indication that the researcher consulted with an outside expert nor was a peer reviewer or co-coder employed to review the data. Nonetheless, the finding of relevance to the current dissertation was the conclusion by the women in the study that verbal persuasion and vicarious learning experiences (self-efficacy sources) were most significant in forming their beliefs about their capacity to obtain a leadership position. These results, in addition to the respondents' assertion that self-efficacy is important to successfully mastering and maintaining leadership positions, supports the current study on how self-efficacy influences the leadership development of women in academic medicine.

Acebo (2008) Regarding the Ties that Bind: The Perceived Influence of Organizational Culture and Self-Efficacy on Leadership Success for Women Fundraisers. Acebo (2008) explored the perceived influence of organizational culture and self-efficacy on leadership success for women fundraisers at a single point in time. Specifically, the purpose of this doctoral dissertation study was to examine female leadership within offices of university advancement, and factors that influence the success of women who achieved the position of chief advancement officer within a college or university. The three research questions guiding the study were:

1. What are the beliefs women hold regarding the affect their workplace culture has on female leadership success in the area of university advancement?
2. How has gender role socialization affected perceived leadership opportunities of women within the area of university advancement operations?
3. Do males and females in the area of university advancement differ in attribution styles and self-efficacy? (Acebo, 2008, p. 74)

To address these guiding questions, Acebo (2008) used a mixed-method research design to gather both qualitative (phase one) and quantitative (phase two) data.

Information on respondent demographics, institutional information such as type and size of institution where respondent was employed, respondents' organizational culture were collected in both phases of data collection.

Phase one of data collection involved face-to-face, semi-structured interviews, conducted by the researcher. The goal of phase one was to collect qualitative data regarding respondents' impressions of internal and external influences that might be impediments to perceived leadership success. The measurement instrument for phase one was constructed to have three distinct sections. Section one examined perceived external barriers in the workplace that may be perceived as obstacles to women in their quest for advancement into a leadership position in university advancement. Areas examined were exclusion from networks, perceptions of the organizational environment in which they work, their professed leadership style, and their personal acknowledgement of professional accomplishments. Section two of the interview instrument focused on perceived internal barriers to advancement that may be perceived to be obstacles to leadership positions for women positions for women in university advancement. These

questions encompassed Bandura's (1997) four areas of self-efficacy that influence an individual's belief in their abilities to accomplish a particular task. Section three of the interview instrument consisted of the General Perceived Self-efficacy (GSE) scale. This scale was a primary component to the survey, providing an additional layer of consistency to the data collection by undergirding the responses of participants to the questions posed in section two of the interview instrument. The GSE is a 10-item psychometric scale that is designed to assess optimistic self-beliefs to cope with a variety of difficult demands in life (self-efficacy). Developed by Matthias Jerusalem and Ralf Schwarzer in 1981, the results garnered from the application of this uni-dimensional scale have strong validity, having been administered to hundreds of thousands of participants. In samples from 23 nations, coefficient alphas ranged from .76 to .90, with the majority in the high .80s. Responses are made on a 4-point scale. The sum of the responses to all 10 items yields the final composite score with a range from 1 to 4. Higher scores indicate a stronger belief in self-efficacy (Schwarzer & Jerusalem, 1995).

Phase two of the study utilized two standardized assessment tools to gather quantitative data for statistical analysis and pattern identification of themes gleaned from the qualitative data collected in phase one of the study. The Revised Causal Dimension Scale (CDSII) was employed to assess the causal dimensions of locus of causality, external control, stability, and personal (internal) control for the open-ended causal attributions that respondents assign to a particular outcome. The CDSII has been shown to have high psychometric properties, with alpha coefficients for the four subscales ranging from .60 to .92 across four different studies (McCauley, Duncan & Russell, 1992). The previously described GSE scale was also employed in phase two, focusing

on 10 questions related to organizational culture, including the influence of gender in the workplace, leadership style, mentoring, and personal sacrifices made for career advancement.

Because a mixed methods approach was employed, two samples from the same target population of 1,525 ($N = 1,525$) members of the Council for Advancement and Support of Education (CASE) District IV who were identified as chief advancement officers, chief development officers or others defined as advancement professionals. The sample population for phase one included nine women vice presidents for institutional advancement who ranged in age from 46 to 60. With regard to highest level of education, two respondents held bachelor's degrees, four held master's degrees, and three held doctoral degrees. Four of the nine respondents were employed at doctoral degree granting institutions with student populations in excess of 10,000, two were employed at doctoral degree granting institutions with student populations less than 10,000, and three worked for master's degree granting institutions. Phase one respondents had an average of 13 years professional institutional experience.

The sample population for phase two consisted of 412 institutional advancement professionals from a five-state region: Arkansas, Louisiana, Oklahoma, New Mexico, and Texas who were chief advancement officers, chief development officers and other individuals defined as advancement professionals. Of the 412 individuals who began the survey, 50% (207) completed all questions. Of the 207 respondents, 32% were men and 68% were women; this was the only measure for which data were reported relative to gender.

Data gathering for phase one was conducted over a 60-day period beginning September 1, 2004 and concluding October 31, 2004. Phase two data collection occurred in March 2006.

The GSE scale was implemented as a means to measure the perceptions of the respondents of their capabilities to organize and execute a course of action that is required to manage a particular situation. An examination of the respondents' scores on the 10-item GSE scale showed a wide spectrum of responses and reinforced its validity in this study. The number of respondents was 207 and the resulting coefficient alpha was .878 with a standard deviation of 4.067.

Results of the qualitative analysis demonstrated that respondents displayed high levels of self-efficacy and locus of control. Correlational analysis found no statistically significant differences between phase two men and women respondents' mean self-efficacy scores. However, "there were several significant correlations found between men and women among the attribution variables of locus of causality, stability, internal control, and external control. This indicates that while confidence in abilities to respond to particular situations are relatively equal between men and women, the way in which they respond to those situations varies depending on the perceptions held by each group in regard to the origin of causality" (Acebo, p. 151).

To establish internal validity, the researcher maintained an audit trail that included all recorded tapes and de-identified transcripts (names replaced with demographic identifiers) as well as other information gathered on each participant which was stored in a fireproof and locked location. In addition, a copy of the transcription was given to each

research participant to ensure the veracity of the information and to allow for necessary clarification of meaning to questions asked and answered (Acebo, 2008).

There were two limitations noted in the Acebo (2008) study. First, the study was limited to participants directly involved in the field of institutional advancement; therefore, the findings are not generalizable to other populations. Second, the phase two web-based survey generated a smaller response rate than anticipated. More than half elected not to complete the survey because of a lengthy workplace scenario that required an open-ended response; thus, limiting the reliability of the study. Notwithstanding these limitations, the results of the Acebo (2008) study are relevant to the current dissertation for their relatedness to leadership success and the participants' assertion that their individual success was internally driven. This assertion aligns with Bandura's concept of personal agency which contends that individuals have "the power to originate actions for given purposes" (Bandura, 1997, p. 3). To that end, as with Garmon's (2008) research, results of the research conducted by Acebo (2008) support the use of Bandura's four principle sources of self-efficacy development. The study provides important insight into the internal and external drivers that impact women's leadership success.

A synthesis of these studies showed a positive relationship between self-efficacy and leadership success across domains. However, one study (Garmon, 2008) found that verbal persuasion and vicarious experiences influenced participants' belief in their capacity for leadership advancement over the other sources. This is contrary to Bandura's (1986, 1997) assertion that mastery experiences (performance attainment) is the most powerful and influential source of self-efficacy and that verbal persuasion is the weakest. Whereas Powell (2011) found that mentoring positively impacted participants'

entrepreneurial leadership and self-efficacy, Acebo's (2008) findings attributed internal and external drives to leadership success rather than mentoring. Albeit, Acebo's study showed that self-efficacy was important to leadership perception, participants did not credit mentoring (one of the characteristics of vicarious experiences), as part of their progression towards success. Moreover, all of the studies showed evidence that participants were resilient, bounced back after making mistakes, learned from failures and setbacks, and remembered past achievements in their quest for success. Despite the fact that some findings challenged the influence of respective sources of self-efficacy on participants' leadership perception and success; and despite the fact that, in addition to self-efficacy, there were other implications for participants' success; overall, these studies demonstrated relevance to the current dissertation study on self-efficacy and its connection to the leadership development of women academics in medicine.

Research Related to Self-Efficacy and Women Leaders in Academic Medicine

One empirical study was found in the existing literature that examined the role of self-efficacy and women in academic medicine. Sloma-Williams, McDade, Richman & Morahan (2009) conducted this research to examine the role of self-efficacy in developing women leaders in academic medicine and dentistry. Specifically, this peer-reviewed, exploratory single-case study explored contributions of the Hedwig van Ameringen Executive Leadership in Academic Medicine® (ELAM) Program for Women on increasing self-efficacy beliefs among participating Fellows. The ELAM Program is the singular program in the United States that focuses on preparing women for academic leadership in medical sciences, with emphasis on developing and enhancing leadership skills for women in leadership positions in academic medicine (Sloma-Williams et al.,

2009). Although the research paradigm was not explicitly identified, the content and structure of the data collection and analysis suggested that the researchers used the interpretivist model of research inquiry. This paradigm was appropriate, given that the purpose of the study was exploratory in nature.

Bandura's (1997) theory of self-efficacy was utilized as the conceptual framework for the study. As theorized by Bandura, self-efficacy, the belief in one's capabilities in a setting or situation, is positively related with leadership development and confidence. Therefore, fostering and enhancing self-efficacy is a vital attribute for women in positions of leadership. The four principle sources of development of self-efficacy identified by Bandura (1997) served as the foundation of analysis conducted by Sloma-Williams et al. (2009). Those sources are: (a) mastery experiences, (b) verbal persuasion, (c) vicarious experiences/social models, and (d) physiological and affective states.

Sloma-Williams et al. (2009) conducted secondary data analysis on responses from annual ELAM program evaluations; specifically, qualitative interviews of ELAM Fellows in the classes of 1996, 1997 and 1999. Bandura's (1997) four sources of self-efficacy development were used as a framework "to uncover specific skills acquired through ELAM and to investigate Fellows' subsequent leadership development in their home institutions" (Sloma-Williams et al., 2009, p. 55). ATLAS*ti software was utilized to conduct content analysis and theme identification in the interview responses.

A total of 41 ELAM participants consented to participate in the interviews: 82.6% of the class of 1996 Fellows (24 Fellows, 23 consented, 19 interviewed); 38.88% of the class of 1997 Fellows (30 Fellows, 18 consented, 7 interviewed); and 53.5% of the class

of 1999 Fellows (37 Fellows, 28 consented, 15 interviewed). Ninety-five percent of the interview participants indicated that ELAM provided benefits in building self-efficacy.

In the area of mastery experience, nearly 82.9% of interview participants reported an increased sense of on-the-job capacity resulting from the practical skill development they received through the ELAM program. Thirty-four percent (34%) reported improved financial management skills, resulting in increased capabilities to address financial matters within their institutions. Related to the area of verbal persuasion, 12% of interview participants attributed improved communication skills to improvements in participant conflict resolution, team building, and negotiation skills. Nine percent (9%) noted improvement in their overall management and leadership skills and 85% described broadening of their horizons as a result of participation in the ELAM program.

Interview participants noted the importance of both the formal and informal opportunities for social modeling provided by ELAM. Seventy-one percent (71%) indicated that these vicarious experiences and social modeling opportunities were very helpful in terms of improving their self-efficacy development related to leadership. Seventeen percent (17%) of interview participants reported positive impacts of vicarious experiences through ELAM mentors that they met prior to or after completing the ELAM program.

With regard to verbal persuasion, Bandura's third source of development of self-efficacy, results of the research conducted by Sloma-Williams et al. (2009) found that 49% of ELAM Fellows reported that they received external validation of the leadership abilities developed from participation in the ELAM program. Increases in leadership abilities were also noted by 67% of Fellows in self-awareness and perceptions of

themselves, Bandura's fourth source of leadership development of psychological and affective states.

Sloma-Williams et al. (2009) identified three main observations that resulted from their research: (a) "Self-efficacy growth as it relates to leadership is a gradual process, (b) self-efficacy growth relating to leadership development is a collaborative (involving the support and nurturing of other people) and independent process (self-testing, self-reflection), and (c) informal and formal support networks help women who are developing leaders to thrive" (pp. 66-67).

While strong in methodology and utilizing a sound sample population, the Sloma-Williams et al. (2009) study was subject to the same limitations of all research relying on self-report and self-assessment data. Respondents may have exaggerated success/positive attributes and or minimized failures; thereby, rendering results of analysis of the directionality of the relationship between self-efficacy and leadership development suspect. To that end, external validity is compromised, affecting results. Further, the small sample size (n=41) limits generalization. Two additional limitations were noted in this study. First, according to the refereed journal article, Fellows were not explicitly asked about their self-efficacy; the themes emerged from analysis of the data. Subsequently, no follow-up contacts were made with Fellows to clarify whether their comments were specifically referring to self-efficacy, a key characteristic of qualitative inquiry that helps establish reliability. Second, supervisors and colleagues were not asked to provide information about the leadership development of the Fellows; thus, relying on the Fellows' statements concerning their leadership development and its relationship to ELAM.

Despite the limitations of the Sloma-Williams et al. (2009) research, all of the findings include information of relevance to the current researcher's dissertation study. ELAM Fellows strongly indicated (95%) an increase in self-efficacy because of their participation in the program. The results showed that the use of Bandura's sources of self-efficacy (mastery experiences, vicarious experiences, verbal persuasion and physiological states) significantly enhances perceived self-efficacy and thus, leadership development.

The research proposed in this dissertation will expand upon the findings of Sloma-Williams et al. (2009) study by analyzing select interviews conducted after those analyzed by these authors, not just at one point in time but rather over an extended period of time. Specifically, the Sloma-Williams et al. (2009) study focused its analysis of data on the first interview conducted with ELAM participants within a period of 18-24 months after completing the program in 1996, 1997, and 1999. The current study is differentiated from the Sloma-Williams et al. (2009) study in that it proposes analysis of data at two points in time (i.e., 0-13 months and on average 66 months after program completion) for each year (1996, 1997, and 1999) versus a single point in time for those same years. Thus, rendering results from the current researcher's study that span multiple years at two points in time during those years.

The results of research conducted by Sloma-Williams et al. (2009) demonstrated a definite positive impact of leadership mentoring on the development of self-efficacy in women in leadership positions. The results of their analysis found that 95% of ELAM Fellows participating in their study indicated the ELAM program provided substantial benefits in building self-efficacy.

The preceding review of research related to Bandura's theory of self-efficacy and leadership development demonstrates that self-efficacy beliefs play a significant role in women's capacity to rise to leadership status. Younger (2002) found that transformational leadership style was significantly related to self-efficacy, and self-efficacy was significantly related to androgyny, self-esteem and education. Powell (2010) found that leaders had a high level of self-efficacy perceptions and that their entrepreneurial self-efficacy perceptions grew as they obtained more experience. Garmon (2008) concluded that women rely most heavily on verbal persuasion and vicarious learning experiences in forming their self-efficacy – their beliefs about their capacity to obtain a leadership position. Acebo (2008) found that while self-efficacy was determined to be a significant variable to consider when looking at issues and perceptions related to leadership success, it was important to note that with regard to self-efficacy, individual success was internally driven, without the assistance of mentoring. Conversely, the results of research conducted by Sloma-Williams et al. (2009) demonstrated a definite positive impact of leadership mentoring on the development of self-efficacy in women in leadership positions. The results of their analysis found that 95% of ELAM Fellows participating in their study indicated the ELAM program provided substantial benefits in building self-efficacy.

The studies presented in this section support the use of Bandura's four sources of self-efficacy in this dissertation study on the connection between self-efficacy and leadership development among women in academic medicine over a multi-year period following their participation in a specialized leadership development program.

Hedwig van Ameringen Executive Leadership in Academic Medicine® (ELAM) Program

The purpose of this study is to explore the connection between self-efficacy and leadership development among women in academic medicine over a multi-year period following their participation in a specialized leadership development program. The purpose was addressed by analyzing interview data from alumnae of the Hedwig van Ameringen Executive Leadership in Academic Medicine® (ELAM) Program for Women using a content analysis research design. In this section of the chapter a review of the ELAM program is appropriate to fully contextualize the design of the program. The following areas will be addressed: a brief early history of the program, the ELAM program as it exists today, alumnae's support, research involving the ELAM program, and a section summary.

An Overview of the Founding of the ELAM Program

The legacy of the Female Medical College, located in Philadelphia, PA, provides the historic nucleus and foundation from which Drexel University College of Medicine established its roots (Richman & Magrane, 2009). Drawing on the institution's women-centered roots to empower women personally and professionally, Page S. Morahan, Ph.D. acted on the need for a leadership development program for women and spearheaded what became ELAM (2009). This section provides an overview of the founding of the ELAM program.

The legacy of advancing women in medicine began in 1850 with the founding of the Female Medical College of Pennsylvania. This was the nation's first women's medical school and a predecessor of today's Drexel University College of Medicine. The

ELAM program, which is a part of the International Center for Executive Leadership in Academics (ICELA at Drexel®) and a core program of the Institute for Women's Health and Leadership®, is based at Drexel University College of Medicine and was originally founded in what had evolved from the Female Medical College of Pennsylvania (Mensel, 2010).

The ELAM program was created in response to the lack of professional development for women aspiring to progress in leadership in the health academic arena. In 1991, the Medical College of Pennsylvania's administrative leadership, Dr. Walter Cohen, president, and Dr. Patricia Cormier, vice president of institutional advancement, conducted a needs assessment of medical school deans. At that time, there were only three women deans of medical schools and no women deans of dental schools (Mensel, 2010; Richman & Magrane, 2009). Further, there were very few women in associate and full professor positions at U.S. and Canadian medical schools. In 1993, when Dr. Morahan was appointed Associate Dean for Faculty Affairs, one of her three responsibilities was to create a program that would assist women in advancing in the field of academic medicine. Early funding was afforded by a planning grant from the Jessie Ball DuPont Fund (Richman & Magrane, 2009). On behalf of Patricia Kind and her mother, the program was presented with a donation in 1998 (Richman & Magrane, 2009). At that time the program was branded as the Hedwig van Ameringen Executive Leadership in Academic Medicine Program for Women.

Dr. Morahan, who spearheaded the effort to establish a leadership development program to advance women academics in medicine (Richman & Magrane, 2009), understood that increasing women's involvement in the leadership of academic medicine

might be a major paradigm and culture shift. A program of such significance had to be strategically designed. There were two parts noted in the early design of the program. First, a steering committee was created to structure program content and development. Second, an inventory of leadership programs was taken to gain a comprehensive model for the program.

A group of consultants including professionals from Institute for Educational Management (IEM) at Harvard University (Harvard Graduate School of Education, 2014), American Council on Education (ACE, 2014), medical faculty and administrators from American Medical Women's Association (AMWA, 2014) and Association of American Medical Colleges (AAMC, 2014) agreed to support the development of the program through participation in the steering committee. The steering committee shaped the content-based program on objectives and goals, admission requirements, policies and procedures, and the qualifications for future faculty members. It was important to establish a fair process in which candidates were selected; yet to also make certain that the program selected women who had support from their institutions. The vision of a few and the support of many, helped birth a leadership program that would provide a foundation for women who taught in academic medicine, dentistry, and public health. Among the many changes that the program experienced, the first came in 1996 when women in academic dentistry began to enter the program; women in academic public health were admitted to the program in 2006 (Diserens, Lyngard, Morahan, & Richman, 2006).

The ELAM program was partially modeled after the Institute for Educational Management (IEM) at Harvard University (Harvard Graduate School of Education, 2014)

and the American Council on Education (ACE) Fellows Program (American Council on Education, 2014), and received guidance from the Association of American Medical Colleges (AAMC). There were other leadership development models that the steering committee reviewed as well. For example, the committee reviewed the leadership institutes offered through Higher Education Resource Services [HERS] (2013), and the Leonard Davis Institute, affiliated with the Wharton School and the School of Medicine at the University of Pennsylvania (Mensel, 2010; Wharton School of the University of Pennsylvania, 2013).

Although these programs provided valuable training for women in the area of leadership, none addressed the “complex financial and human issues, which arise in balancing the goals of education, clinical care, and research in medical schools” (Cohen, 1993, p. 2) and how these issues relate to women’s leadership in academic medicine.

In sum, a call for action on behalf of the ELAM program was derived from a needs assessment conducted by Dr. Cohen and Cormier in 1991. The findings of the needs assessment demonstrated a disproportionate number of women to men in academic medical leadership. The ELAM program was initiated and facilitated a group of women assembled in fall 1995 later known as the “25 accomplished women fellows” (Richman & Magrane, 2009). History revealed that this strategically formed and well thought out program was designed with the support of administrative supporters, financial backers, and committed committee members who thought the ELAM concept was an essential and necessary effort.

The ELAM Program as it Exists Today

The ELAM program is a core program of ICELA, which is within the Institute for Women's Health and Leadership (IWHL), which is a part of the Drexel University College of Medicine ("About ELAM," 2014). The ELAM program has grown tremendously and has expanded to a class size of 54 students that matriculated in the fall of 2014. The program began for women academics in medicine only; however, as previously mentioned, it has expanded to include women academics from dentistry and public health in later years, as well as to a few international medical faculty. ELAM continues to support the leadership development of alumnae through face-to-face and virtual outlets ("About ELAM," 2014). These include a weekly e-newsletter, alumnae gatherings at national meetings, and regional events ("ELAM Alumnae," 2014). The program continues to support the development, advancement, and continuing success of women leaders in schools of medicine, dentistry, and, most recently, public health ("About ELAM," 2014).

Today, ELAM is the only in-depth national program dedicated to preparing senior women faculty at schools of medicine, dentistry, and public health to effect sustained positive change as institutional leaders ("About ELAM," 2014). ELAM's intensive 1-year fellowship program of executive education, personal leadership assessment and coaching, and networking and mentoring activities supports ELAM Fellows as they develop a broader vision of their role within their academic health centers, enhance their leadership effectiveness, understand strategic finance, enhance their ability to lead organizational change, and become part of an active resource network of women leaders ("ELAM Curriculum," 2014).

Upon graduation from the ELAM program, Fellows are expected to have met four objectives. One objective is to develop a strategic career approach that utilizes personal awareness and leadership strengths to enhance professional effectiveness. Another objective is to collaborate with diverse team members to build a community of leadership practice that enhances its members' effectiveness and career development. A third objective is to compare economic indicators and benchmarks and financial trends for diverse academic health science organizations. The fourth objective is to compare the roles and responsibilities of various institutional leaders with respect to academic organizational structure, function and responsiveness to change ("ELAM Curriculum," 2014).

Background of the Participants

Fellows come from all regions of the United States and reflect a diversity of institutions (Mensel, 2010; Richman & Magrane, 2009). Applicants must hold the rank of associate or full professor in a medical, dental, or public health school; and must have had administrative experience in personnel and budget management ("ELAM Application Information," 2014). These Fellows represent close to 87% of U.S. medical schools and 60% of U.S. dental schools (ELAM Fast Facts, 2014). In addition, medical schools from Canada and Puerto Rico have been represented. Over half of ELAM graduates serve in leadership positions ranging from department chairs to presidents ("ELAM Fast Facts," 2014).

Application and Selection Process

Prospective Fellows apply to the ELAM program via an electronic application process that begins with the recommendation of their respective deans. Each medical

school Dean may nominate a maximum of two candidates. Nominations and recommendations are composed of short essays to define the candidate's qualifications and institutional support. Letters of recommendation originate from a direct supervisor and a senior colleague (“ELAM Application Information,” 2014). The candidate provides the application and information that describes her professional and educational background. Candidates are expected to include information on leadership experience which includes information on strategic risk taking, record of professional development, mentoring experiences, and rationale for seeking leadership roles, an assessment of internal and external leadership opportunities over the next five years following the ELAM program (“About ELAM,” 2014) . The home institution agrees to provide resources and commit to the time and expense (“ELAM Application Information,” 2014). Finally, the candidate’s Dean is expected to attend a final program session. The final program session is an opportunity for the Fellow and her dean time to communicate goals, expectations, and opportunities upon return to the home institution (Morahan, 2006). (“ELAM Application Information,” 2014).

The selection process is rigorous. Selection of each class is a two-part process. Candidates are selected based on individual characteristics and institutional support. A review committee screens all applications and a selection committee makes the final selections. The review committee is comprised of ELAM Alumnae, senior officials of schools of medicine, dentistry, and public health, and faculty of the ELAM program. Among other things, this committee looks for verification that a candidate has the potential for leadership and a promise to develop her own formal or informal advancement and leadership role within the 5 years following ELAM experience. The

selection committee reviews all the rankings and comments of candidates by referencing reports from members of the review committees. The ELAM staff compiles a listing of candidates, ranked by summative scores (adjusted for individual bias by z-score and reviewer differences identified by standard deviation of scores) and by the review committee's members' global recommendations of acceptance ("ELAM Application Information, Admissions Process," 2014). Out of that listing, selection committee members identify Fellows. In addition, Fellows are selected on the premise of similar levels of experience. This is done in an attempt to increase the facilitation of the learning process and to promote the development of community and networking.

Research Involving the ELAM Program

Since its beginning, ELAM has shepherded research on the impact of the program. Research findings inform ongoing improvement, enhance program credibility, and contribute to the growing body of scholarship focused on women and leadership. Qualitative and quantitative research have been conducted by internal and external individuals to ELAM. Data were gathered through surveys and interviews of ELAM graduates of medical colleges (McDade, Richman, Jackson, & Morahan, 2004; McDade, & Sloma-Williams, 2006; Morahan, Gleason, Richman, Dannels, & McDade, 2009; Richman, Morahan, Cohen, & McDade, 2001; Sloma-Williams, McDade, Richman, & Morahan, 2009). The studies reflect different aspects about ELAM as a leadership development program as well as the perceived impact on the Fellows' lives and their careers. There are five objectives in which the research measures: (a) demonstrate the impact of ELAM program on participants, longitudinally within group, and in comparison with other faculty groups and leadership programs, (b) demonstrate the

impact of the ELAM program on medical schools, (c) build theory on how women define, learn, experience and demonstrate leadership, (d) investigate women's advancement and sustained leadership in academic health centers; and (e) establish an evaluation infrastructure that will serve as a model for research in global leadership development programs ("ELAM Research," 2014). Based on study participants' and deans' responses and published findings in scholarly papers, there are perceived benefits to the ELAM program.

There are two studies that specifically concentrate on the evaluation of the ELAM program and as a result address the impact of the program. One study conducted by McDade, Richman, Jackson and Morahan (2004), measured the impact of participation by women academics in the ELAM program as part of a vigorous evaluation agenda. Utilizing the design of a pre/post, within-group, self-report study, surveys elicited self-perception about leadership in ten constructs: knowledge of leadership, management, and organizational theory; environmental scanning; financial management; communication; networking and coalition building; conflict management; general leadership; assessment of strengths and weaknesses; acceptance of leadership demands; and career advancement sophistication. The results revealed statistically significant increases ($p < .01$) in perceived leadership capabilities identified across all ten leadership constructs. Overall, researchers revealed that the ELAM participants reported substantial enhancements across 10 leadership constructs including usefulness of program (McDade, Richman, Jackson, & Morahan, 2004).

Another study, conducted by Dannels, et al. (2008) quantified in a longitudinal study the impact of ELAM comparing ELAM Fellows with a non-ELAM group within

leadership indicators. The data suggested “the ELAM program provides tangible benefits to the women participants in terms of attainment of leadership positions, mastery of leadership competencies, and aspirations to an education in leadership” (Dannels, Yamagata, McDade, Chuang, Gleason, McLaughlin... Morahan, 2008, p. 494). Sixteen leadership indicators were considered and for 15 of the indicators, ELAM members scored greater than other groups. The differences were statistically significant for 12 indicators and were distributed throughout the categories. Overall, the findings supported the hypothesis that the ELAM program has an advantageous impact on ELAM Fellows in terms of leadership behaviors and career progression. These two survey studies of medical school and dental school deans show that the deans believe ELAM has a positive impact on the Fellows and the schools.

Impact of the Program

Besides the general benefits of the program, Fellows have indicated the impact of specific elements of the program. For example, the finance curriculum was an important and popular component of the ELAM curriculum (Mensel, 2010). Most of the Fellows had little to no exposure to institutional financing and budgeting, and it became apparent that this portion was instrumental to the program’s benefits. In 2010, Morahan et al. conducted a 15-year evaluative study to determine the impact of ELAM within academic medicine and dentistry. The results of the study showed that in addition to providing a model for women’s leadership development, ELAM has demonstrated its effectiveness in the following areas: “leadership skills and knowledge increase after participation; a greater proportion of ELAM alumnae advance to higher levels of academic leadership

than do comparison groups; and medical and dental school deans view the ELAM program as having a positive impact both on their schools and on participants” (p. 156).

These studies and others serve to confirm ELAM’s accomplishments, and thus, validate its value. Overall, the ELAM program has contributed to the literature and enhanced its strategies by assessing program participants, building theory on how women evolve, and assessing the impact of the ELAM program.

Over the past 19 years, staying abreast of trends and using formative and summative evaluations, ELAM has consistently responded to the needs of medicine, medical schools, and academic health centers, as well as the participating Fellows and their deans. These actions have resulted in change related to program design, curricula improvement, and technology immersion and progression. Such actions have also provided opportunities for networking and staying updated on cutting edge leadership and health issues. Continual assessment through these measures as well as qualitative and quantitative research (internal and external) ensures that the program stays true to the ELAM mission and reflects Fellows’ needs and current trends in the field (Mensel, 2010).

Summary

Although there has been a slight increase in the numbers of women in leadership positions in medical schools, women have not achieved parity; and progress toward advancement has been slow. Perceiving this gap, Drs. Cohen, Cormier and Morahan successfully promoted an opportunity for women who sought professional advancement. ELAM was inaugurated in 1995 with a primary goal of providing leadership-learning opportunities to enable women in medical academia to advance in their fields. The goal

was ultimately modified to include the admission of women in academic dentistry to the program in 1996 and the entrance of women in the academic public health field in 2006. ELAM meets the challenge of acquiring steady funding sources. Despite changes and challenges, ELAM has garnered awards and recognition for its program. Because ELAM is a specialized leadership program for women academics in medicine, this dissertation aims to use the Program as the platform to study the connection between self-efficacy and leadership development among women in academic medicine over a multi-year period following their participation in a specialized leadership development program.

Chapter Summary

The overall purpose of this chapter was to provide the reader with a presentation of the literature review in the study. An overview of Bandura's (1997) self-efficacy theory and an analysis of empirically related studies were provided. This chapter concluded with a foundation of the ELAM program.

CHAPTER 3: METHODOLOGY

The purpose of this study is to explore the connection between self-efficacy and leadership development among women in academic medicine over a multi-year period following their participation in a specialized leadership development program. The problem of practice addressed by this study is that despite the fact that women have reached parity in entering and graduating from medical schools (AAMC, 2014), the percentage of women who advance to leadership positions is small. The research problem addressed in this project is that the existing literature is deficient in studies that focus on the exploration of self-efficacy and how it influences the development of women leaders in academic medicine over time. This chapter will present the study's methodology through eleven sections: research paradigm, subjectivity statement, research design, theoretical constructs, research questions, data retrieval and organization, data analysis, the researcher's perspectives, trustworthiness of the study, ethical considerations of human participants, timeline for project completion, and chapter summary.

Research Paradigm

The paradigm of inquiry is a “basic set of beliefs that guides action” (Guba, 1990, p. 17) and identifies the investigative approach of an empirical study (Bentz & Shapiro, 1998; Creswell, 2009, 2013; Crotty, 1998; Fraenkel, Wallen & Hyun, 2012; Tashakkori & Teddlie, 2003). It is the underlying theoretical construct through which researchers examine a particular problem (Bentz & Shapiro, 1998; Creswell, 2009, 2013; Crotty, 1998; Denzin, 1978; Patton, 1990, 2002). Essentially, a paradigm serves as a guide to a specific philosophical context of social inquiry that informs the questions and the type of research method for the investigation (Creswell, 2007; Crotty, 1998; Denzin & Lincoln,

2005; Fraenkel, Wallen & Hyun, 2012; Tashakkori & Teddlie, 2003). To that end, this section will explore why and how the constructivist paradigm framed this researcher's investigation of how self-efficacy influenced women's leadership development in academic medicine over a multi-year period of time.

Overview of Constructivism

Constructivism is a philosophical worldview that utilizes a qualitative approach to explore the unique experiences of individuals and focuses on individual sense-making to elicit the truth about a phenomenon (Creswell, 2009, 2013; Crotty, 1998; Patton, 2002; Schwandt, 1994, 2000). It assumes that truth is a particular belief system held in a specific context (Bogdan & Biklen, 1992). Further, the constructivist paradigm of inquiry views knowledge and meaning as created by the participants in the situation; reality and truth are a matter of perspective by individuals and their experiences (Crotty, 2003; Schwandt, 1994, 2000). It is primarily individualistic (Crotty, 2003; Schwandt, 1994, 2000) and, "focuses on the meaning-making activity of the mind" (Crotty, 1998, p. 79). In investigating the behavior, experience, and illumination of a social reality, the most trustworthy study is one in which the researcher describes and explains the situation or experience studied from the viewpoint of those involved (Livesey, 2006).

According to Guba and Lincoln (1989), there are four principles of constructivism. The first is that individuals create new knowledge by reflecting on their past actions. In other words, people learn when they examine their past experiences. The second principle posits that new knowledge comes through assimilation and accommodation (Fosnot, 1989). This means that knowledge is not static; it constantly changes as people internalize it and reconcile it with their worldview; thereby, creating

new knowledge. The third principle is that learning is an organic process of invention rather than a mechanical process of accumulation (Fosnot, 1989). This suggests that knowledge is gained during the normal course of people's creative experience; it is not something that happens automatically. Further, individuals construct knowledge as they make active meaning of their environment; not just gained through passive interaction with the environment (Piaget, 1980). In essence, people create knowledge as they make sense of their environment through active engagement with the world and the people surrounding them. The fourth principle proposes that learning becomes more meaningful through reflection and resolution of cognitive conflict and can negate earlier, incomplete levels of understanding (Fosnot, 1989). This means that learning evokes a greater capacity for understanding a phenomenon over time and through introspection, people can modify past learning. Altogether, constructivists believe that deep learning occurs during periods of confusion and surprise and also as a journey over protracted periods of time (Inhelder, Sinclair & Bovet, 1974; Lawler, 1981). The overall assertion is that people learn when they reflect on and reconcile past actions, internalize new knowledge, and make sense of their engagement with their environment.

Constructivism and this Study

Constructivism is the paradigm of inquiry that will guide the research design of this study in two key ways. First, this worldview acknowledges that people make sense of their own experiences (Crotty, 2003). And so, this philosophy raises awareness on how the women in this study were making sense of their individual experiences relative to their self-efficacy and leadership development as fostered by the ELAM program. Second, constructivism helps this study to accept that peoples' understanding of their

learning experiences are multiple and complex over time (Guba & Lincoln, 1989). Constructivism fits a study of how women perceive their self-efficacy and its application to their individual leadership performance given that this paradigm of inquiry requires a researcher to see the leadership development pilgrimage as described through the eyes and experiences of the interviewees as they made sense of their learning over time (Appleton & King, 1997; Koch, 1996; Rodwell, 1998; Schwandt, 2000). The interpretation of these descriptions will provide qualitative data based on the responses of the ELAM alumnae comparative to how they make sense of self-efficacy as it applies to their leadership development and their promotion to leadership positions.

Researcher's Constructivist Worldview

In addition to how the constructivist paradigm fits the phenomena under investigation (self-efficacy and leadership development) and how the participants of this study sought to explain and understand their leadership development experiences in their interviews, so too, does this worldview fit that of the researcher. Crotty (1998) asserted that constructivist researchers often address the processes of interaction among individuals. Researchers recognize that their own backgrounds shape their interpretation, and they position themselves in the research to acknowledge how their interpretation flows from their personal, cultural, and historical experiences (Crotty, 1998; Creswell, 2009, 2013). To that end, the researcher of this study made sense of her own leadership development by reflecting on, processing, and reconciling the leadership experiences she has had. The researcher's intent is to generate meaning from the participants to provide an explanation of how self-efficacy influenced their leadership development. In this

study, the researcher will analyze ELAM alumnae responses using this philosophical framework.

However, it is important to note, as it relates to the philosophical framework, that researcher bias could be introduced because of the subjectivity of interpretation (Yin, 2003). Strategies for justifying this potential bias will be discussed in the sections on data collection, coding, analysis, and trustworthiness.

In summary, it seems appropriate to situate this study within the constructivist research paradigm of inquiry to gain an understanding of the multiple and perhaps complex circumstances associated with women in academic medicine and the development of their leadership skills.

Overall, this paradigm is aligned with the researcher's worldview and lays the epistemological foundation for interpreting how self-efficacy connects with the leadership development of women in academic medicine over a multi-year period following their participation in a specialized leadership development program.

Subjectivity Statement

A subjectivity statement is a summary of who the researcher is in relation to what and who is being studied (Preissle, 2008). This statement is developed from the researcher's personal history, cultural worldview, and professional experiences. The purpose of a subjectivity statement is to: (a) help researchers identify how their personality, experiences, beliefs, feelings, cultural viewpoints, and professional propensities may affect their research; and (b) convey this information to other scholars for their consideration of the study's credibility, dependability, and overall quality or validity (Preissle, 2008). The qualitative content analysis design of this study presented

the possibility of bias entering the results. This potential for bias was recognized in the researcher's experiences and addressed. This section provides a summary of the researcher's administrative experiences related to this dissertation and how the potential for bias was mitigated.

The researcher is currently a retired administrator with over 30 years of experience in higher education. My tenure began as a secretary when I started developing my administrative skills under a department chair who embraced my enthusiasm and ambition for greater opportunities. The position grew to a point where I assumed responsibility for many of the chair's duties without additional compensation. Although I felt unappreciated, I viewed my situation as an opportunity for growth that would benefit me in the future. While in this position, I received my bachelor's degree and subsequently, my master's degree in clinical social work, enduring the challenges of working full-time, raising a family, and going to school part-time. The degree in social work afforded me the opportunity to pursue a counseling career working with women victims of family violence; and in 1988, I began teaching part-time as a social work lecturer at the local university. My experiences over the next several years would lead me to an administrative position as a director; a senior administrative position as an interim vice chancellor; and back to director where the position was reclassified at the senior level. These experiences provided a firsthand understanding of the frustration women face relating to salary inequities; exclusion from decisions that directly affect personal, professional, and departmental growth and development; relationship building; and networking at all levels. In sum, the researcher's overall work experience encompasses her subjectivity relative to this study.

To address bias, five techniques were employed for this dissertation. First, the researcher adopted a well-established research method in keeping with the philosophical assumptions and interpretive lens of qualitative inquiry. Second, triangulation was used to add to the study's credibility. Third, peer debriefing was employed to serve as both conscience and critic for the researcher's work. Fourth, an in-depth description of the participants' experiences was used to help place the reader in the context of the study. Fifth, reflective journaling was used to create transparency in the research process. A detailed discussion of each technique will be provided later in the chapter.

Research Design

The most appropriate research design for this study is qualitative content analysis that is exploratory and descriptive. A research design provides the blueprint for conducting a study (Creswell, 2009; Merriam, 1998; Yin, 1988). Yin (1988) posited that, "a research design is an action plan for getting from here to there, where 'here' may be defined as the initial set of questions to be answered, and 'there' is some set of conclusions (answers) about these questions" (p. 28). Yin further suggested that a research design is not merely a work plan, but a "design . . . to help to avoid the situation in which the evidence does not address the initial research question" (p. 29). Krippendorff (2004) referred to research design as "the network of steps a researcher takes to conduct a research project" (p. 81). A research design is also contingent upon the purpose of the study (Creswell, 2005; Merriam, 1998; Yin, 1988). This section will discuss this study's research design in the following areas: (a) qualitative research design, (b) exploratory and descriptive design, and (c) content analysis design.

Qualitative Research Design

In general, there are three approaches for conducting social science research: qualitative, quantitative, or a mixed method encompassing both (Creswell, 2013; Merriam, 1998; Patton, 1990). This study utilizes qualitative research, which allows this researcher to study the problem “in depth and detail . . . without being constrained by predetermined categories of analysis . . .” (Patton, 1990, p. 12). Merriam (2002) supported this assertion by positing that qualitative research is used to “understand the meaning people have constructed about their world and experiences” (p. 4). Qualitative research also focuses on a phenomenon in a comprehensive manner, which can provide a deeper understanding than quantitative methods (Lincoln & Guba, 1985; Merriam, 2002; Patton, 1990). Unlike quantitative research, this is typically achieved through conducting the study in a natural setting (Bogdan & Biklen, 1992).

Moreover, qualitative research “assumes that there are multiple realities—that the world is not an objective thing...but a function of personal interaction and perception” (Merriam, 1998, p. 17). In other words, people come to the knowledge of their own truth based on their individual engagement with their environment and how they view it. This fits well within the constructivist philosophy that individuals engage in sense-making actions that are shaped by prior knowledge and experience (Piaget, 1980), which occur through shared interactions (Bruner, 1990). Rubin and Rubin (2005) further asserted that perception is established on one’s own ideas which are subjective viewpoints. Other characteristics of qualitative design include an emphasis on process rather than emphasizing the end product, and on understanding an experience rather than quantifying it (Boyatzis, 1998; Crotty, 2003; Merriam, 1998). Thus, qualitative research is

appropriate for this study given that multiple perceptions or realities of women in academic medicine will emerge relative to their self-efficacy and leadership development over multiple years.

Qualitative Content Analysis Design

Content analysis is “a research method for the subjective interpretation of the content of text data through the systematic classification process of coding and identifying themes or patterns” (Hsieh & Shannon, 2005, p. 1278). It is an “empirically grounded method, exploratory in process, and predictive or inferential in intent” (Krippendorff, 2004, p. xvii). Content analysis allows the researcher to investigate a phenomenon in its own context to answer prior “how” and “why” questions, what they mean and to whom (Krippendorff, 2013). Catanzaro (1988) argued that content analysis is the established means for secondary textual analysis. Different scholars define content analysis as “a methodology” (Mayring, 2000), “a process” (Leedy & Omrod, 2005, p. 31), and “a technique” (Krippendorff, 2013, p. 24; Neumendorff, 2002, p. 10). Nonetheless, there is agreement that qualitative content analysis is a research technique for making replicable and valid inferences about social reality in a systematic way by recognizing patterns and themes (Hsieh & Shannon, 2005; Fraenkel et al., 2012; Leedy & Omrod, 2005; Krippendorff, 2013; Neumendorff, 2002). In other words, content analysis is a scientific tool that, when applied to texts or other meaningful data using specialized procedures, yields replicable and valid results that can be upheld under scrutiny, particularly when applying the same technique to the same data (Krippendorff, 2013).

Since its introduction in 1941, content analysis has evolved beyond its journalistic roots and, over the past century, has migrated into various fields, yielding inferences from

various verbal, pictorial, symbolic, and communications data (Krippendorff, 2013). As Krippendorff (2013) showed in a comparison of research methods using a Google search of content analysis, survey research, psychological test, and experimental research, there were 1.5 billion documents relating to content analysis found in March 2013, an increase of 355% over a decade from the 4,230,000 documents found in August 2003.

Krippendorff attributes a great deal of this increase to the widespread use of computers for all kinds of text processing and specialized software programs that assist the content analysis process.

Klaus Krippendorff is a professor of communication who, for over four decades, contributed to many fields in communication, sociological methodology, cybernetics and systems theory. With epistemology in mind, Krippendorff's works involve how language brings forth reality. He has written four books on content analysis that, since 1980, have taught generations of social scientists about this methodology. In comparison to others in his field, Krippendorff's work is one of the most widely quoted resources in many of the current studies of content analysis (Weber, 1985). He has contributed book chapters on this method for the U.S. Department of Education, the *International Encyclopedia of Communications*, and the National Commission on the Causes and Prevention of Violence; written numerous articles in journals of communication on the subject; and edited and co-edited book volumes related to the analysis of communications content. Krippendorff has also conducted research for *Consumer Reports* and conducted a pilot study for the Public Broadcasting Service.

According to Krippendorff (2013), content analysis serves three purposes: prescriptive, analytical, and methodological. Its prescriptive purpose is to guide the

conceptualization and design of the research; its analytical purpose is to facilitate the critical examination and comparison of published content analyses; and its methodological purpose is to identify performance criteria and standards that researchers can apply in evaluating ongoing content. To that end, qualitative content analysis was chosen as a research design for this study for two reasons. First, content analysis is an appropriate method for research focused on human phenomena in an indirect way, through a systematic analysis of their communications (Fraenkel et al., 2012; Krippendorff, 2013). Second, content analysis is suitable for addressing human activity that is not directly observable or measurable, nor always possible to access information from those who might know of such activity from firsthand experience (Fraenkel et al., 2012; Krippendorff, 2013). In fact, Fraenkel et al. (2012) posited that “it [content analysis] is extremely valuable in analyzing observation and interview data” (p. 479).

Exploratory, Descriptive Content Analysis Strategy

Content analysis studies can be explanatory, exploratory, descriptive or a mix (Fraenkel, et al., 2012). An explanatory strategy is quantitative in nature; the purpose of which is to explain why phenomena occur and to predict future occurrences (Fraenkel, et al., 2012). Thus, it is not appropriate for this dissertation study. This study is a mixture of exploratory and descriptive. In an exploratory study, the researcher seeks to explore a phenomenon or to identify important themes (2012). Using this strategy, the researcher carefully reads and rereads the data, looking for key words, trends, themes, or ideas in the data that will help outline the analysis (Yin, 1988). It requires flexibility to respond to the researcher’s evolving understanding and to pursue new avenues of inquiry as needed (1988). In this exploratory content analysis study, the researcher seeks to discover how

ELAM alumnae made sense of their self-efficacy and its connection to their leadership development over time. A descriptive study is a thick, rich, detailed account of the phenomenon being investigated including the context, activities, participants and the process (Merriam, 1988). This descriptive content analysis study focuses on the influence of the four sources of self-efficacy (performance accomplishments, social persuasion, vicarious experiences, and physiological states) on the leadership development of ELAM alumnae over time. Together, an exploratory, descriptive content analysis strategy provides a comprehensive description of the progression of events surrounding the connection between self-efficacy and the leadership development of women alumnae who participated in the ELAM program over a multi-year period of time. This research asks “how” and “why” questions about making sense of self-efficacy and its connection to the development of leadership skills (Krippendorff, 2013). To answer these questions, an exploratory, descriptive content analysis study strategy is appropriate to use for this study. An explanatory strategy was not appropriate as its focus is on quantitative data for the purpose of explaining why phenomena occur, and predicting future occurrences (Fraenkel, et al., 2012).

Content Analysis as It Relates to Constructivism

A content analysis design is a reasonable approach based on the researcher’s own constructivist paradigm of inquiry. Krippendorff (2013) asserted that content analysts must “construct a world in which the texts make sense and can answer the research questions” (p. 30). An examination of secondary interview data on how women in academic medicine ascribed meaning to the connection of self-efficacy and their leadership development over a multi-year period following their participation in the

ELAM program fits this criterion. Such data seeks to explain or make sense of these women's perspective on how self-efficacy influenced their leadership development based on their individual experiences. In so doing, the researcher draws from participants' constructed knowledge and experiences, which provides thick, descriptive data that will contribute to a better understanding of the phenomenon (Fraenkel et al., 2012; Krippendorff, 2013; Merriam, 1998).

Strengths and Limitations of Content Analysis Research

It is important to note that every research method has its strengths and weaknesses; content analysis is no different (Krippendorff, 2013). Content analysis research has five primary strengths. First, content analysis is unobtrusive in that "the contents being analyzed are not influenced by the researcher's presence" (Fraenkel et al., 2012, p. 489; Krippendorff, 2013; Sarantakos, 2005). It requires no contact with participants and therefore, has no effect on the persons being studied (Sarantakos, 2005). Second, it is "extremely useful as a means of analyzing interview data" (Fraenkel et al., 2012, p. 489; Krippendorff, 2013; Sarantakos, 2005; Schreier, 2012). Third, content analysis entails less bias than other methods, given that text offers information in a neutral form, ready to be researched by the investigator (Sarantakos, 2005; Krippendorff, 2013). Fourth, it provides a means by which to study processes that occur over long periods of time (Babbie, 1998). Finally, because the data are readily available and can be revisited, content analysis permits replication of a study by other researchers (Fraenkel et al., 2012, Krippendorff, 2013). For the current study on the self-efficacy and leadership development of ELAM alumnae, content analysis research was a good fit given that the interviews for this study were previously conducted and are available for

analysis. Thus, the researcher needed no contact with the study's participants. Moreover, an examination of the participants' interview transcripts provided descriptive information and emerging themes in the context of self-efficacy and leadership development that will allow the researcher to understand the meaning they attributed to them. Overall, in this study, content analysis allowed for the unobtrusive, minimally biased, replicable research that considers how, using secondary interview data, self-efficacy connects to the leadership development of women in academic medicine at multiple points in time.

There are three main limitations to using a content analysis research design for this study. First, content analysis design is limited to recorded information (Fraenkel et al., 2012; Sarantakos, 2005; Schreier, 2012). McBroom (1992), however, found that "if researchers use content analysis to analyze interview data or responses to open-ended questions (or written questionnaires), this weakness is virtually nonexistent" (p. 259). Second, it is ineffective for testing causal relationships between variables. Thus, researchers should be careful to present the frequencies of a theme in terms of the magnitude of the responses. Third, content analysis design is susceptible to coder bias (Orwin, 1994; Sarantakos, 2005). To address this weakness, the researcher provided training to help the peer reviewer or debriefer guard against unintentional bias. The peer reviewer or debriefer will be discussed in more detail later in the chapter. Further, because the researcher is responsible for the analysis, the researcher was vigilant in recognizing biases that may influence interpretation of data. The current study design addressed and attempted to diminish each of these two limitations.

Inductive vs. Deductive Reasoning

Qualitative content analysis involves a process designed to condense raw data into categories or themes based on valid inference and interpretation (Zhang & Wildemuth, 2009). This process uses inductive reasoning, by which themes and categories emerge from the data through the researcher's careful examination and constant comparison. Qualitative content analysis does not need to exclude deductive reasoning (Patton, 2002). Generating concepts or variables from theory or previous studies is also useful for qualitative research, especially at the inception of data analysis (Berg, 2001).

Hsieh and Shannon (2005) discussed three approaches to qualitative content analysis based on the degree of involvement of inductive reasoning. The first is conventional qualitative content analysis, in which coding categories are derived directly and inductively from the raw data. This type of analysis, also referred to as data-driven (Glaser & Strauss, 1967; Wright, 1997), is used for grounded theory development (Hsieh & Shannon, 2005). In this approach, the researcher carefully reads and rereads the data, looking for keywords, trends, themes, or ideas in the data that will help outline the analysis before any analysis takes place (Glaser & Strauss, 1967; Wright, 1997). By contrast, the second approach is directed content analysis, in which initial coding starts with a theory or relevant research findings (Hsieh & Shannon, 2005). Also referred to as theory-driven, this approach is guided by specific ideas or hypotheses the researcher wants to assess. Specifically, this approach is used in cases where the researcher seeks to retest existing data in a new context (Catanzaro, 1988). As in the data-driven approach, the researcher closely reads the data prior to analysis but the analysis categories have been determined a priori, without consideration of the data (Krippendorff, 2004; Weber,

1990). During data analysis, the researchers immerse themselves in the data and allow themes to emerge. The purpose of this approach usually is to validate or extend a conceptual framework or theory (Hsieh & Shannon, 2005). The third approach is summative content analysis, which starts with the counting of words or manifest content, then extends the analysis to include latent meanings and themes. This approach seems quantitative in the early stages, but its goal is to explore the usage of the words/indicators in an inductive manner (Hsieh & Shannon, 2005).

Theory-driven approaches tend to be more structured, and thus, may be considered more reliable, in that the same results are likely, regardless of the coder (Namey, Guest, Thairu, & Johnson, 2007). Conversely, data-driven approaches may be considered to have greater reliability because they are more flexible and open to the discovery of themes or ideas not previously considered, resulting in theory that is “grounded” in the data. Fortunately, “neither approach is so rigid as to prevent borrowing from the other to maximize the findings of an analysis and to balance reliability and validity” (p.139). In other words, theory-driven analysis does not preclude the analyst from uncovering emergent, data-driven themes, which may then be added to the analysis; and similarly, data-driven analyses may generate theories to explain emergent themes and ideas (Namey et al., 2007). Schreier (2012) asserted that “the relation between concept-driven and data-driven categories can be whatever seems appropriate” (p. 90), suggesting that there is “no right mix” (p. 90) since what matters most is capturing what is most important about the data. To that end, an integrated approach, using theory-driven and data-driven analyses, was most appropriate for this study as the researcher utilized Bandura’s theoretical framework to identify analysis

categories and subsequently, inductively analyzed trends, themes, or ideas that emerged from the interview data of ELAM alumnae.

Summary

The use of qualitative, exploratory, descriptive content analysis design helped to focus this study's methodology in a comprehensive manner (Fraenkel et al., 2012; Krippendorff, 2013; Lincoln & Guba, 1985), concentrating on "naturally occurring, ordinary events in natural settings" (Miles & Huberman, 1994, p. 10), with a goal of understanding human behavior through the analysis of their communications rather than quantifying it (Boyatzis, 1998; Crotty, 2003; Fraenkel et al., 2012; Krippendorff, 2013; Merriam, 1998). For this study, the research design specifically employed both theory-driven and data-driven strategies to this content analysis because of their contribution to illuminating a person's "conscious and unconscious beliefs, attitudes, values, and ideas as revealed in their communication" (Fraenkel et al., 2012, p.478). This strategy provided an in-depth description of events and sequences that contributed to self-efficacy and leadership development over a multi-year period among women who participated in the ELAM program.

Theoretical Framework

This section will discuss the theoretical framework of the study and provide operational definitions of the constructs.

Operationalization of Theoretical Framework

Operationalization is the process of developing measures (Neumendorff, 2002). It is the "construction of actual, concrete, measureable techniques" (Babbie, 1995, p. 5). Albert Bandura's (1982, 1986, 1989, 1991, 1997) self-efficacy theory frames the data

collection and analysis of this study on the connection between self-efficacy and leadership development over a multi-year period among women in academic medicine during and after their participation in a specialized leadership development program. Bandura's theory was identified in Chapter 2 and is operationalized here. Contributions to this framework were made by many scholars, including Bong and Clark (1999), Gist (1989), Hackett and Betz (1989), Khoury (2005), Pajares (1997), and Wood (1989). However, because Bandura (1997) expressed the position most clearly, this study used his self-efficacy theory perspective as the lens through which this research study will be viewed. This section first presents an overview of self-efficacy. Then, each of the four sources of self-efficacy are discussed in detail. Lastly, the significance of Bandura's framework to this study is discussed.

Albert Bandura's Self-Efficacy Framework

The theoretical framework that supports this study is Bandura's (1986, 1997) self-efficacy component of Social Cognitive Theory. Although the term "self-efficacy" is of recent origin, interest in beliefs about personal control has a long history in philosophy and psychology (Maddux, 2000). The theories of effectance motivation (White, 1959), achievement motivation (McClelland, Atkinson, Clark, & Lowell, 1953), social learning (Rotter, 1966), and helplessness (Abramson, Seligman, & Teasdale, 1978) are just a few of the many theories that have sought to explore relationships between perceptions of personal competence human behavior, as well as psychological well-being (Skinner, 1995). (See Appendix D for other theories related to motivation.) However, Bandura's 1977 article, "Self-Efficacy: Toward a Unifying Theory of Behavioral Change," both formalized the notion of perceived competence as self-efficacy and offered a theory of

how it develops and influences human behavior. What has appealed to so many researchers and theorists from so many different fields is that Bandura offered a construct that had intuitive and common sense appeal, yet defined this common sense notion clearly and embedded it in a comprehensive theory (Maddux, 2000). The essential idea was not new; what was new and important was the empirical rigor with which this idea could now be examined (Maddux, 2000).

The self-efficacy frame, as illuminated by Bandura (1997), is essential for its suggestion that people's decisions about whether or not to attempt certain courses of action and about how long to pursue them are, to an important extent, determined by judgments of personal self-efficacy. Specifically, Bandura (1986) defines self-efficacy as "people's judgments of their capabilities to organize and execute courses of action required to attain designated types of performances" (p. 391). It follows then, that women can expand their leadership interests and career options by a self-belief that they have or can develop the necessary capabilities for occupations traditionally dominated by men, especially when their actual ability is congruent (Bandura, 1997). Bandura's self-efficacy framework offers clues to the development of one's leadership skills and the level at which a leader functions (Khoury, 2005); and can positively affect leadership aspirations, as well as predict a leader's self-perception of his or her own effectiveness (Woods, 2004).

As revealed in Chapter 2, four principle sources are offered by Bandura (1994, 1997) to explain how self-efficacy is constructed. The first is performance accomplishment, also referred to as mastery experiences, confirmed as the most effective way of developing a strong sense of self-efficacy; that is, through the successful

performance of tasks. The second source, vicarious experiences or modeling, deemed the next most effective way to develop self-efficacy, proffers that seeing people similar to oneself succeed by sustained effort raises observers' beliefs that they, too, possess the capabilities to master comparable activities to succeed. The third, verbal or social persuasion, is most effective following performance accomplishment and asserts that if people receive realistic encouragement, they will be more likely to exert greater effort and to become successful than if they are troubled by self-doubts. The final principle source, physiological arousal or emotional states, suggests that a certain level of emotional stimulation can create an energizing feeling that can contribute to strong performances (Bandura, 1989, 1994, 1997). Table 5 outlines the four sources, their definitions and some key characteristics which are not exhaustive. These key words and characteristics serve as the guiding concepts for coding the interviews to find evidence of self-efficacy learning and development.

Albert Bandura's self-efficacy frame was selected for this study because it seeks to describe and understand how self-efficacy connects with the successful performance of the task of leadership (Bandura, 1982, 1986; Wood & Bandura, 1989). Further, it supports the notion that self-efficacy is dominant in predicting positive outcomes (Pajares, 1997; Bong & Clark, 1999); thereby, helping to mitigate the incongruity of women's advancement to leadership positions (Bandura, 1997; Hackett & Betz, 1989; Pajares, 1996a, 1996b), particularly in a specialized field like academic medicine.

Table 5

Bandura's Self-Efficacy Frame

Self-Efficacy Sources	Definitions and Expansions	Some Key Words and Characteristics
Performance Accomplishments (mastery experiences)	Successful performance of tasks	Repeated performance success; self-motivated persistence; goal setting; coping skills; participant modeling; sustained commitment; scholarly achievement; perseverance; professional achievement; self-instructed performance
Vicarious Experiences	Raising beliefs by observing people similar to oneself succeed by sustained effort; possess the capabilities to master comparable activities to succeed	Self-modeling; peer modeling; family and peer success; representation; similarity; networking; social modeling; mentoring; social comparison; social influences; symbolic modeling
Verbal Persuasions	More likely to exert greater effort and to become successful when receiving realistic encouragement than if distressed with self-doubts	Suggestion; exhortation; encouragement; praise; push; promote; support; move forward; influence
Physiological States	Certain level of emotional stimulation can create an energizing feeling that can contribute to strong performances	Pride, anxiety, fear, exhilaration, relaxation; biofeedback; stress; symbolic desensitization; symbolic exposure

Note. Adapted from *Self-Efficacy: Toward a Unifying Theory of Behavioral Change*, A. Bandura, 1977, p. 195.

Research Questions and Sub Questions

The purpose of this qualitative content analysis study is to explore the connection between self-efficacy and leadership development over a multi-year period among women in academic medicine following their participation in a specialized leadership development program. In a content analysis study, the research questions are the targets of the analyst's inferences from available texts (Krippendorff, 2013). There are two reasons for content analysts to start with a research question: efficiency and empirical grounding (2013). Content analysts, who are motivated by specific questions, proceed more expeditiously from sampling relevant texts to answering given questions (2013). They "read texts for a purpose, not for what an author may lead them to think or what they say in the abstract" (Krippendorff, 2013, p. 37). The pursuit of answers to research questions also grounds content analysts empirically in that all answers to research questions entail truth claims that could be supported (2013). In content analysis, research questions have three characteristics: they are believed to be answerable by examination of a body of texts; they delineate a set of possible answers upon which analysts select; and they allow for (in)validation, at least in principle, by acknowledging another way to observe or substantiate the occurrence of the inferred phenomena (2013). To that end, the main research question for this study is: Using the lens of Bandura's self-efficacy theory, how is self-efficacy involved in the leadership development over time of women in academic medicine? The research question is operationalized by the following sub research questions:

1. How do mastery experiences contribute to women's leadership development over time?
2. How do vicarious experiences contribute to women's leadership development over time?
3. How do verbal persuasions contribute to women's leadership development over time?
4. How do physiological states contribute to women's leadership development over time?
5. How do the experiences of these women extend or suggest modifications in Bandura's self-efficacy theory?

Population and Sample

The population for this study was senior women academics in U.S. medical schools. The sampling frame was established through a stratified, purposeful strategy. This section explains the population and the sample stratification process, beginning with the population. The sampling approach for a qualitative research investigation is contingent upon both the nature of the problem and the purpose of the study (Patton, 2001). Stratified purposeful sampling is a technique for selecting units or people for focus in a study (Patton, 2001). The stratified part of the strategy involves drilling through layers of characteristics, choosing a purposeful subgroup at each layer (Patton, 2001). The purposeful part of the strategy involves selecting particular units or cases that differ according to key dimensions (Patton, 2001). For the purposes of this study, five levels of stratification were used:

1. Total population of all senior women (associate and full professor rank) in academic medicine;
2. Subset of senior women (associate and full professor rank) in academic medicine with interest in leadership development. This subset was identified by the proxy of those senior women in academic medicine who participated in the ELAM program, which is designed to develop the leadership capacities for rising leaders in academic medicine. (A full description of the ELAM program is provided in Chapter 2);
3. Subset of the subset of alumnae of the ELAM program who participated in interviews for an ELAM research project;
4. Subset of ELAM alumnae who participated in multiple interviews over time (at least two); and
5. Subset of those ELAM alumnae who participated in multiple interviews over time with targeted responses about self-efficacy development.

These five levels, starting with the population of the study followed by descending levels of stratification are discussed separately next and presented in Table 6 titled Sampling Strata.

Table 6

Sampling Strata

ELAM Class Interviews	Second Stratum Number ELAM Participants	Total	Third Stratum Number Participating in at Least One Interview	Fourth Stratum Number Participating in at least two touch points
1996	25		25	9
1997	29		17	7
1999	36		24	15
2003	29		29	0
Total	119		94	31

Note. Table 6 does not reflect the first level of stratification (i.e., population of women in academic medicine), as such is described in a section above, nor the fifth stratification (i.e., population of women who spoke about self-efficacy).

First Stratum: Population of Senior Women Academics in US Medical Schools

Although the data may present an encouraging picture of progress, women are still underrepresented at the associate and full professor levels in comparison to men, though their numbers are slowly rising (AAMC, 2014; Carnes, VandenBosche, Agatista, Hirshfield, Dan, Shaver, Murasko, & McLaughlin, 2004). Thus, all senior women (associate and full professor rank) in academic medicine constituted the population for this study and therefore, comprised the starting point for the stratified, purposeful sampling strategy used in this study.

Second Stratum: Women Academics in Medicine Interested in Leadership

Development and Participants in the ELAM Program

The second stratum consisted of the total number of women in academic medicine who had interests in leadership development and aspirations for leadership advancement.

Because of the difficulties of identifying emerging women leaders in academic medicine who have such interests and aspirations, it was practical to reach out to a leadership development program where women self-identified their leadership interests and intentions. Thus, for the purpose of having a manageable and bounded study, the ELAM program was chosen because of its demographics—senior women in academic medicine interested in advancing professionally—with regard to the development of leadership.

Although rising women leaders in academic medicine have other programs from which to choose (e.g., “Mid-Career Women Faculty Professional Development Seminar and “Early Career Women Faculty Professional Development Seminar”), these are shorter programs (i.e., typically three-to-five days in length in comparison to the year-long ELAM program). Immersion into longer programs tends to provide a more intense lens through which the women can focus on their leadership development, including their self-efficacy behaviors, which is a purpose of this study. In addition, because of the long history of the ELAM program, which was founded in 1995, recently, there seems to be a sufficient critical mass of accumulation of participants (over 908 alumnae as of 2014) as well as documentation of the program’s intended outcomes and activities.

The purpose of the ELAM program, specifically, “offers an intensive 1-year program of leadership training with extensive coaching, networking and mentoring opportunities aimed at expanding the national pool of qualified women candidates for leadership in academic medicine, dentistry and public health” (About ELAM, 2014, p. 1). In general, its participants are senior women in academic medicine and dentistry. By participating in ELAM, these women academics indicated that they were emerging leaders who were interested in considering advancement in the leadership ranks of

medical schools (ELAM, n. d.). ELAM is designed to develop the personal and professional skills required to lead and manage successfully in today's multifaceted health care environment, with the unique challenges facing women in leadership positions (ELAM, 2014). ELAM was chosen because it is the most substantive leadership development program for women at the associate or full professor level in academic medicine (About ELAM, 2014). This program was discussed at greater length in Chapter 2.

Third Stratum: Participants in the ELAM Interview Project

ELAM has been proactive in examining its impact on the leadership development of its participants through research. In 2002, ELAM began a multi-year research project. Principle funding in the early years of this research project came from the Robert Wood Johnson Foundation. The multi-faceted research study employed surveys and interviews (Morahan, 2000) with alumnae as well as with deans of medical schools. Of usefulness for this present study, were the interviews conducted with alumnae of four ELAM classes, which began the ELAM interview database. Because of the difficulty of not only identifying but also gaining access to rising women leaders in academic medicine, an important consideration for use of ELAM as a stratum in the sampling strategy was the existence of this interview database. Furthermore, ELAM agreed to provide access to the database for this dissertation project. (See Appendix E for ELAM permission letter.)

Three classes were the focus of the ELAM interview project, classes of 1996, 1997, and 1999. All alumnae in these classes (those who completed the entire ELAM program) were invited to participate in the interviews. Of the 119 eligible alumnae from these three classes, 94 or 78% elected to participate in at least one interview.

Fourth Stratum: Participants of Multiple Interviews and Touch Points

Multiple interviews were conducted at discrete time intervals, hereinafter referred to as touch points or times, in the three classes (1996, 1997, and 1999) that are the focus of this study. Altogether, a total of 31 women fell under the fourth stratum of multiple interview touch points. The discrete times were: Time 1 = 0 to 13 months after completion of the ELAM Program; Time 2 = 23 to 25 months after completion of the ELAM Program; Time 3 = on average 66 months or 5.5 years after completion of the ELAM Program; and Time 4 = 94 months or 7 to 8 years after completion of the ELAM Program. Time Two and Time Four interviews were eliminated from participation in this study as only a handful of members of each class participated in these interviews and thus, there was not sufficient consistency of participant commentary to have comparable insights into the leadership evolution of the interview participants at each of these additional points in time. To that end, for simplicity and to avoid confusion, for the remainder of the study, Time 3 will be referenced as Time 2.

Fifth Stratum: Women Who Spoke about their Self-Efficacy Development

To provide clarity to the data analysis process, purposeful sampling was employed. Purposeful sampling is a non-random method of sampling where the researcher selects information-rich content for study in depth. From this information-rich content, one can learn a great deal about issues of central importance to the purpose of the research (Patton, 2001). Only those women who spoke to the issue of self-efficacy development were sought for examination in this project. The fifth cut or sorting process could not happen until the 31 sets of multiple touch point interviews were requested (see section below for data retrieval process). The final stratum consisted of the purposeful

selection (Patton, 2001) of those women who spoke extensively in their interviews about their self-efficacy development across multiple touch point interviews. These women were selected by a preliminary analysis of the interviews.

To identify the relevant interviews, the researcher first created a table listing each participant and each interview touch point (see Appendix F.) The researcher read the transcripts, looking for passages where the subjects spoke about their development as leaders, with particular attention to language about self-efficacy. A mark was made on the table if there was any comment at all about performance accomplishments, vicarious experiences, verbal persuasion, and physiological states. These passages were color-highlighted. The researcher then ranked the attention to these sources of self-efficacy as high, medium, or low. To ensure consistency in this process, the researcher repeated the entire process twice with a fresh set of interviews as well as a coding and check-off table and then compared the results.

This last step was in keeping with the concept of purposeful sampling where the sampling starts with a purpose in mind and the sample is thus, selected to include people of interest and exclude those who do not suit the purpose (Patton, 2001). Candidates who had high or medium rankings for any interview touch point, were then included in the study. Any candidates who ranked low across all interview touch points were eliminated from the study. Thus, the final slate of candidates, 19 of the 31, was chosen for data analysis. (See Table 7 for Population and Sampling Strata.)

Table 7

Population and Sampling Strata

Strata	Numbers	Source
Senior Women in Academic Medicine	38,949	Women in U.S. Academic Medicine and Science: Statistics and Benchmarking Report (AAMC, 2014)
ELAM alumnae from beginning of program to present	908	www.drexelmed.edu
ELAM alumnae who participated in any interviews (Classes of 1996, 1997, 1999, 2003)	119	Dr. Sharon A. McDade, external evaluator for ELAM research project
ELAM alumnae who participated in multiple touch point interviews (1996, 1997, 1999)	31	Dr. Sharon A. McDade, external evaluator for ELAM research project
Interview participants who identified as high or medium for self-efficacy	High: 7 Medium: 12	Analysis by researcher
Interview participants with multiple interview touch points of high and medium self-efficacy used for analysis	19	Analysis by researcher

Summary

Overall, this study began with the population of women academics in US medical schools, and, using a five-step stratified purposive sampling technique, ended up identifying 31 women who spoke about the development of their self-efficacy over time through multiple interviews. The final analysis pool for the study was identified through purposeful sampling to screen for those interviewees who had high, medium or low attention to self-efficacy in their interviews, resulting in 19 participants in the final sample.

Secondary Data

Unlike primary data analysis, which has been collected and analyzed from “first-hand” sources, secondary data analysis involves the use of “existing” data from previously collected research (Hinds, Vogel & Clarke-Steffen 1997; Szabo & Strang, 1997). According to Hinds et al. (1997) and Szabo & Strang (1997), secondary data is typically used for the purposes of a particular research interest that differs from that of the original work, including a new research question or an alternative perspective concerning the original question. For the purposes of this study, secondary data analysis was essential, as the data were collected previously in the form of interviews to ascertain reflections from ELAM alumnae on the usefulness of the program to them, and the development of their careers and leadership over time. Still, the secondary data were a good match to support this study’s exploration of the connection between self-efficacy and the leadership development of the ELAM alumnae by analyzing interviews conducted at two points in time after their completion of the program to better understand the evolution of leadership self-efficacy over a multi-year period. Please see Appendices B and C for questions for potential use across the interview times to support the investigation of self-efficacy development.

With regard to the secondary data, interviews were conducted with ELAM alumnae to determine their reflections on the utility of the program to them as well as the growth of their careers and leadership over time. The interview portion of the research consisted of a time-series (i.e., multiple points in time) of reflective phone interviews. While the population would be all senior faculty (i.e., associate and full professors) in academic medicine and dentistry, the purposeful sample frame for the interview data

collection consisted of all women who applied to and had been accepted to ELAM in total since the program's founding in 1995 ($n = 908$). Women who participated in the ELAM program in 1996 ($n = 25$), 1997 ($n = 29$), and 1999 ($n = 36$) were contacted via email to participate in the interviews, with an attachment of the appropriate interview protocol (Sloma-Williams et al., 2009). The protocol asked essentially the same questions in each interview round, with more specific questions about program curriculum and operations in the first interview, and more questions about long-term impact and leadership development in the succeeding interviews. All interviews were conducted by Dr. Sharon A. McDade, who served as external examiner for the ELAM research project. The interviews lasted approximately one hour, were conducted by phone, and were audio-taped. The interviews were transcribed, and then stripped of identifying information.

There are strengths and weaknesses to having a single interview. According to DiCicco-Bloom and Crabtree (2006), conducting single interviews is the most prevalent approach and may be preferred when access to participants is difficult or when the topic can be effectively examined in a single interaction. However, such interviews may well miss important information. One meeting with a participant with whom the researcher has never met or spoken may fail to elicit the vital contextual information that would more likely emerge across multiple interviews (Mishler, 1986) and, without which, the experiences described in an interview may be stripped of their meaning (Patton, 1989).

For this qualitative content analysis study, because the researcher did not participate in the planning and execution of the data collection process, there was some initial concern about the adequacy of the already existing data in terms of answering this

study's research questions. However, professional and evidentiary support help mitigate such concern. The first mitigation regarded the expertise and professionalism of the primary researcher (Dr. Sharon A. McDade), as well as her accessibility as the dissertation chair for this researcher; thus, she is readily available to answer any questions that might come up regarding the interview texts. The second strength was the rigor of the research design and interview process as established in the grant-funded ELAM research project. As evidence of this rigor, 12 refereed journal articles and 4 dissertations have emanated from the overall research project including 19 presentations at various higher education and research association meetings and conferences (ELAM Publications, 2014). Additionally, Dr. Page Morahan, principal investigator for the grant-funded research project, is a member of the committee for this dissertation; and is also available to query the interview project design and for context nuances in data analysis. The third strength was the robustness of the interview pool as exemplified by the number of alumnae who participated with multiple interviews. The fourth strength was that the interviews were transcribed by an outside professional and checked for accuracy against the audio tape by Dr. McDade. The fifth strength was that the interviews could be tracked to a common interview protocol relating to the singular experience of all of the women in the ELAM Program, which provided similarities and program touch points across all of the interviews. These reasons, as well as the breadth of potentially relevant data available for examination, help mitigate the concerns of using secondary data in the conduct of this multi-year study on self-efficacy and the leadership development of women in academic medicine.

Although the interviews were created for another research project, they were a good match to support this study in that they provided the only such data collected that involved women academics in medicine, and the interview protocol was of such a broad nature relating to leadership development that answers relative to Bandura's (1986) concepts were potentially plentiful. The interviews were not specifically done to elicit data about self-efficacy development, which is the focus of this study; rather, the interviews were designed to garner insight into the broad development of leadership. However, within the broad development of leadership, the questions were structured to elicit commentary about the development of self-efficacy. For example, the question related to mentoring/modeling elicited responses reflective of Bandura's self-efficacy concept of social vicarious experiences. Another question addressed skill development and management which speaks to Bandura's concept of performance accomplishments or mastery experiences. Appendices B and C provide a complete list of questions from the original interview protocol. Reviewing the interviews on leadership as a whole may provide insight to the development of self-efficacy.

While there are several potential limitations for using existing data, there are advantages as well (Veal, 2005; Saunders, Lewis & Thornhill, 2009). Some of the potential limitations suggest that secondary data are only as good as the researcher who conducted them, requiring the new researcher to assume what the original researcher meant by the terms used in the interview protocol questions. Again, for this study, the researcher is fortunate to have access to the interviewer (Dr. Sharon A. McDade) to ask questions about terms or concepts that are not clear. In addition, there may be sub-culture references, jargon, or idiomatic expressions that may limit one's understanding of

the data; thus, the reason why Dr. Page Morahan, an expert in leadership development in women in academic medicine and Founding Director of the Hedwig van Ameringen Executive Leadership in Academic Medicine (ELAM) Program, is on the researcher's dissertation committee.

Some of the advantages of analyzing secondary data are: the research is unobtrusive (Veal, 2005; Saunders, Lewis & Thornhill, 2009); it could increase the scale of studies on a small budget; it does not exhaust people's good will by re-collecting readily available data; it can provide contextual data; it can result in unforeseen discoveries; and it speaks to the comfort of the permanence of data as these data were stored in secure archives.

Ultimately, the concerns stem from the reliability, accuracy, and integrity of the data. Reliability is the degree to which the data "remain constant throughout variations in the measuring process" (Kaplan & Goldsen, 1965, p. 83–84). In other words, the research procedure is reliable when it responds to the same phenomena in the same way regardless of the circumstances of its implementation (Krippendorff, 2013). Accuracy of data is "the degree to which a process conforms to its specifications and yields what it is designed to yield" (Krippendorff, 2004, p. 215). Data integrity is a term used to refer to the reliability and accuracy of data (Patton, 2002). To that end, for this study, reliability and accuracy were established based on the standard techniques of consistency of coding, category saturation, reflexive journaling, peer debriefing, auditing, triangulation, and dissertation committee review.

It is important to recognize that it would have been difficult for this researcher to collect so many interviews without Dr. McDade's connection to the ELAM research

project and its participants as the external reviewer. It also would have been difficult to collect so many interviews, without the context of the grant-funded ELAM research project.

In sum, this study employs secondary data analysis utilizing the ELAM interview data base which supports the researcher's exploration of self-efficacy and the leadership development of women academics in medicine over time. The disadvantages to analyzing the secondary data for this study are mitigated by this researcher's access to the external interviewer of the ELAM alumnae and principal researcher of the previous study as well as access to the Founding Director of the ELAM program to answer questions and address concerns. These factors and other advantages noted in this section, far outweigh the disadvantages of using secondary data for this study.

Data Retrieval and Organization

This section details the process used to retrieve and organize the data for this study. It is organized into four sections: (a) requesting and receiving the interview transcripts, (b) storing and saving the data, (c) electronic storage, and (d) hardcopy storage.

Requesting and Receiving the Interview Transcripts

The 31 sets of transcripts from the ELAM interview database identified through the fourth stratum of the sampling strategy detailed above were requested from the ELAM research project external reviewer, Dr. Sharon A. McDade. (See e-mail request for transcripts in Appendix G).

The external reviewer sent the researcher the de-identified interviews through a password-encrypted, secure file transfer protocol over the Internet. The researcher

acknowledged receipt of the files to the external reviewer via an email message. (See e-mail communication demonstrating receipt of transcripts in Appendix H). All identifying information had been stripped from the interviews by the ELAM research team, and interviews were identified only by codes. Each code included the class year and an identifying number, plus “tier” (touch point) identification.

Storing and Saving the Interview Transcripts

Although this research did not have any foreseeable risks, the computer that housed the data was protected with a system login and password, and virus protection was regularly updated. The researcher downloaded the interviews from the secure, transmitting site to a section of her personal computer that was password-protected and segregated from other computer work. These initial interview files were also saved on a USB drive as the initial, clean copies of the deidentified interview transcripts.

A second copy of each electronic interview transcript was created for each interview for the analysis process of this project. It was to this set of interview transcripts that the final stratum of purposeful sampling was applied (see explanation of this process above), which resulted in the sets of interviews ultimately selected for analysis. Upon identification of the final set of interview transcripts, any interview sets that had been transmitted but would not be used for the study were deleted from the researcher’s computer. Additionally, the researcher also made paper copies of the final set of deidentified interview transcripts and stored these in locked files as back-up.

Preserving the large quantities of data in a safe but accessible manner is of critical importance to a researcher (Patton, 2002). Whether storing files through a computerized system or a system of paper copies, the researcher organized the data

sources for manageability and protection. The researcher saved versions of the data periodically and kept these files organized by noting version, date, and time saved. Data recoverability was in place by transferring files at the end of each analysis session to a back-up USB drive in the event of an emergency. The researcher processed all materials as they were accessed for easy retrieval at a later time.

In summary, retrieving and organizing the data is an important phase of the research process. Carefully recorded, organized, and protected data facilitates the data analysis. For this study, the researcher incorporated organizational tools and methods for effectively preparing and handling the gathered data.

Data Analysis

Data analysis is the process of making sense of the data (Merriam, 2009). This involves consolidating, reducing, and interpreting information that has been said or done (Merriam, 2009; Patton, 1990). These and other scholars affirm that data analysis is a recursive process that involves moving back and forth between various levels of raw data, coded extracts, and abstract concepts; between inductive and deductive analysis; between description and interpretation (Braun & Clarke; Spiggle, 1994); and can occur simultaneously with the data collection process (Creswell, 2003; Patton, 2002).

Qualitative content analysis was the analytical method used to examine this study. This method aims to describe how thematic contents are explained by groups of participants, and to identify meanings that are valid across many participants (Marks & Yardley, 2004). Patton (2002) referenced qualitative content analysis as “any qualitative data reduction and sense-making effort that takes a volume of qualitative material and attempts to identify core consistencies and meanings” (p. 453). Schreier (2012) wrote

that “one of the most important strengths of qualitative content analysis is that it allows [the researcher] to describe and classify large amounts of qualitative data such as interviews” (p. 33). Krippendorff (2013) confirmed that interviews are frequently subjected to content analysis.

Krippendorff’s (2004, 2013) content analysis method was used to provide the foundational knowledge for using qualitative content analysis in this study. His method included six components of content analysis: unitizing, sampling, recording/coding, reducing data, abductively inferring contextual phenomena, and narrating the answer to the research questions. He further explained that these components were “present in qualitative research ... albeit less explicitly so” (2004, p. 87), and that content analysis is flexible in that it could “use components that are not specified” (2004, p. 85). Berg (1983) affirmed that during analysis, “researchers should incorporate all appropriate modes of inquiry,” (p.256). To that end, the researcher decided not to employ Krippendorff’s method; but rather, chose to use a thematic approach to qualitative content analysis as it provides a more simplistic path to examining the data. Although there are many versions of thematic content analysis (e.g. Aronson, 1994; Attride-Stirling, 2001; Boyatzis, 1998; Joffe & Yardley, 2004; Tuckett, 2005), the researcher chose to use Braun and Clarke’s (2006) thematic content analysis method as the basis for analyzing this study, hereinafter referred to as TCA. Notwithstanding Krippendorff’s (2013) method, Braun and Clarke (2006) provided a more qualitative approach to content analysis which is appropriate for this study. Definitions related to this qualitative content analysis are provided in Appendix I.

Thematic Content Analysis (TCA)

Braun and Clarke (2006) defined TCA as “a method for identifying, analyzing and reporting patterns within data” (p. 79). However, other scholars characterized it as “a process” (Boyatzis, 1998, p. vi; Ryan & Bernard, 2000) or tool used across different [qualitative] methods. Nonetheless, according to Braun and Clarke (2006), it is the most commonly used technique in qualitative research; it is appropriate for a wide range of research interests and theoretical perspectives; it can be used to analyze different types of data, including secondary sources such as transcripts of interviews; it works with large or small data sets; and it can be applied to theory-driven or data-driven analyses. For this qualitative content analysis study, the researcher was interested in describing how self-efficacy influenced the leadership development of ELAM alumnae over time (Classes of 1996, 1997, and 1999), using secondary interview data from a previous study. The data corpus comprised 119 interviews, also referred to as data items, many individual interviews consisting of over 40 pages of transcript. The selection of interviews for analysis was based on the purposive stratified sampling process discussed earlier in this chapter.

There are two approaches to TCA —deductive (theory-driven) and inductive (data-driven); both were also discussed earlier in this chapter. Hyde (2000) insisted that both induction and deduction processes are necessary for any research, and using one or the other leads to deficiencies in the lack of theoretical perspective or a lack of theory development respectively. To that end, the researcher applied both strategies to this study (theory- and data-driven), using the research questions drawn from Bandura’s theory of self-efficacy and the four sources of self-efficacy development to guide the

examination of data while inductively allowing the emergence of themes and subthemes that could not have been anticipated. Using an integrated strategy to TCA was appropriate for this study as it provided the researcher the flexibility to capture what was most important in the data.

Braun and Clarke's (2006) procedures for TCA include six phases of analysis: (a) familiarizing yourself with the data; (b) generating codes; (c) searching for themes; (d) reviewing themes; (e) defining and naming themes; and (f) producing the report.

Schroeder (2012), in her dissertation titled *Perceived Advising Needs of Adult Learners: A Qualitative Analysis of Advising Experiences among Online, Classroom, and Cohort Adult Learners*, used Braun and Clarke's (2006) TCA procedures in her phenomenological study to explore and describe the advising experiences among, and within three learning environments. Because categorization was essential to her data analysis process, Schroeder (2012) modified Braun and Clarke's procedures as illustrated in Table 8. Categorization is also important to this data analysis; thus, the researcher decided to use Schroeder's (2012) modified version of Braun and Clarke's (2006) TCA as it provided a more suitable framework for this analysis. This version of TCA is consistent with qualitative content analysis since it proposes transitioning from codes, to categories, to themes—a step missing from Braun and Clarke's (2006) suggested phases (Schroeder, 2012). See Appendix J for a detailed cross walk of the coding and thematic process.

Table 8

Modification of the Phases of Thematic Content Analysis as Applied

Phases of Thematic Content Analysis (Braun & Clarke, 2006)	Modified Phases of Thematic Content Analysis (Schroeder, 2012)
1. Familiarize yourself with the data	1. Familiarize yourself with the data
2. Generate initial codes	2. Generate initial codes
3. Search for themes	3. Categorize code associations
4. Review themes	4. Search for and review themes
5. Define and name themes	5. Define and name themes
6. Produce the report	6. Produce the report

One strength of qualitative research is its ability to illuminate the particulars of human experience (Sandelowski, 1996; Stake, 1995) in the context of a common phenomenon. Typically, qualitative researchers collect multiple accounts of common experience which make up the narrative data from which the researcher’s generalizations are drawn (Ayres & Poirier, 1996). In addition to the general context of the phenomenon in question, which is common to all participants’ accounts, each individual account of experience occurs in a context of its own. To that end, using the steps of TCA, the process began with a within-interview analysis and concluded with a cross-interview analysis in which the researcher developed an interpretation of the data that reflected each individual alumnae’s experience and applied it equally across all of the accounts that constituted the data set. In the course of the analysis, the researcher distinguished between information relevant to all participants and those aspects of the experience that were exclusive to particular informants. Such distinctions were necessary because those aspects of an

experience that are unique to one individual have limited usefulness to the purpose of the study.

Phase 1: Familiarization with the data. In preparation for the first phase of data analysis, the researcher selected whole interviews of the ELAM alumnae as the suitable data items for thematic extraction. According to Marks and Yardley (2004), the “whole interview is not only greater than the sum of its parts, but by immersion in the whole, the researcher gains understanding of the parts” (p.66). Moreover, whole interviews facilitated the potential for extracting rich, thick data for analysis. The researcher immersed herself in the interviews to become familiar with the content by actively reading and re-reading the transcripts before beginning to code. The first read was simply to get an understanding of the content of the interviews and the context in which statements were made. Throughout the second reading, the researcher wrote in the margins of the transcripts, noting ideas and identification of potential themes from the original raw data. Moreover, the researcher used colorful markers to separate relevant from irrelevant information by highlighting key paragraphs, sentences, phrases, or words that captured the main ideas related to the four sources of self-efficacy: performance accomplishments (yellow), vicarious experiences (green), verbal persuasion (purple), and physiological states (gray), as well as other statements unrelated to the research questions that the researcher felt were strong and profound (red). Relevant information was broadly defined as any text that was, in any way, related to these self-efficacy concepts; having a bearing on the research questions. Conversely, irrelevant information was narrowly defined as text that was not, in any way, related to the previously mentioned concepts and had no bearing on the research questions. The researcher always erred on

the side of designating the information as relevant when it seemed ambiguous. This process reduced the data so that the essential contents remained and could be analyzed (Mayring, 2002). Using this simple strategy of data selection helped the researcher avoid bias in preparing for the next phase.

Since this study included data from different classes (1996, 1997, 1999), the first phase process began with 1996 transcript data and was repeated for the remaining classes until all data had been duly separated. Once the highlighted paragraphs, sentences, phrases and words were identified, the next phase of generating initial codes began.

Phase 2: Generating initial codes. As a foreword, phases two and three were repeated many times until a practical list of codes were identified and determined to be ready for categorization. The categories informed a material search for what is presented as phase four—a search for, and review of themes. The dissertation chair, who was also the principal investigator who conducted the primary study that yielded the secondary data for this study, provided select passages from a few transcripts to allow the researcher to demonstrate the application and thus, her understanding of these procedures. A more robust illustration will be offered after a full analysis of the entire data set has been completed.

Phase two of TCA involves generating initial codes. Saldana (2009) defined a code as “a word or short phrase that symbolically assigns a summative, salient, essence-capturing...attribute to a portion of language-based or visual data (p. 3).” In this phase, the relevant transcriptions highlighted in phase one were coded for manifest content (see Appendix I) in using codes associated with Bandura’s (1997) self-efficacy theory. So, all data clearly representing self-efficacy concepts were coded first. More explicitly, in

concert with Bandura's self-efficacy framework, and guided by the research questions, the researcher began to inductively open code (see Appendix I) all comments related to performance accomplishments, vicarious experiences, verbal persuasion, physiological states and those characteristics associated with them (see Table 5). This was an appropriate strategy to use since, as stated earlier, the data are from a previous study that focused on a different topic. Open coding allowed the researcher to uncover thick descriptions of manifest and latent information from the secondary data that may not have been concept-specific in terms of wording; but nonetheless, revealing of communication that was implicitly related to the four sources of self-efficacy.

Next, additional codes were created that involved the search for latent content (see Appendix I) which required interpreting the data. Latent coding allowed the researcher to consider the context and meaning of texts as well as to identify additional themes and constructs that were not anticipated or easily discernible; and also, that might enhance the purpose of this study. Using latent coding on each data set, new codes were added until all data were coded. As new codes were created during transcript readings, the preceding interview transcripts were reread and coded for data related to the additional codes. The goal of this initial round of coding was to further reduce the data to a more manageable size. This phase was repeated for each of the previously stated points in time. An example of coded data is provided in Appendix J.

Coding can be done manually as well as with the use of a software program. This researcher chose NVivo 10 qualitative data analysis software to support the coding process. It allowed the researcher to code the data, retrieve text based on key words, rename, or merge existing codes without disturbing the rest of the codes, and generate

visualizations of emergent codes and their relationships to one another. Specifically, the visualizations component allowed the researcher to see quotations from the interview data laid out as though they were note cards. NVivo 10 also assisted the researcher in maintaining automatic logs of coding changes, which made it possible to keep track of the evolution of the analysis. The codes were carefully reviewed for each data set. Those not appearing in any other transcript, or in association with more than one statement, were examined to determine whether they should be included. Moreover, codes appearing in only one interview transcript were usually related to other code names, and relabeled as such. Others were removed if the statement was clearly a reflection of the individual and not related to the four sources of self-efficacy. If any of the statements coded were determined to be similar, an assessment was made as to whether the original codes should remain, be merged under an existing code, or be recoded. This process created a reduction or increase in the number of codes generated. Phase two was repeated for each of the data points, as previously stated, until all data were coded.

Phase 3: Categorization of codes. Phase 3 involved developing categories associated with the codes generated in Phase 2. Categories can be derived from three sources: the data, previous related studies, and theories (Zhang & Wildemuth, 2009). And so, in this phase, the researcher utilized the Phase 2 results from both coding strategies to determine their category placement. Specifically, once the codes were reviewed, a list was generated which categorized those codes from all three data sets based on their relevance to the sources of self-efficacy. Any codes that were identified within the framework of performance accomplishments, vicarious experiences, verbal persuasions, physiological states and related characteristics were listed under the

respective category. An abbreviated example of categorization by self-efficacy source using the codes identified in Phase 2 is offered in Appendix K. Next, using the code list generated from all participants, an additional table was created to sort like codes; meaning codes that engendered the same or similar references to self-efficacy (i.e. networking, support, etc.).

This phase was repeated for each of the stated time periods (0-13 months and 66 months). Because the focus of this study was on how self-efficacy influenced the leadership development of women academics in medicine, the central categories were reflective of the same. Additional categories were included that developed from the results of inductive coding. The purpose of this phase was to place the phase two generated codes into categories that captured their overall meaning.

Phase 4: Searching for and defining themes. Searching for themes is the next phase of TCA. This phase, which re-focused the analysis to the broader level of themes, rather than codes, involved sorting the different codes into potential themes, and comparing all the relevant coded data extracts within the identified themes (Braun & Clarke, 2006). According to Saldana (2009), a theme is a “phrase or sentence that identifies what a unit of data is about and what it means” (p. 139). Braun and Clarke (2006) defined a theme as an idea that captures something important about the data in relation to the research question. At this point, all data have been coded which resulted in a list of different codes across the data set for each time period. Each research question generated a different number of categories. As the researcher started to analyze the codes, certain themes began to emerge. An initial set of themes was created because they spanned across the data set. The researcher used NVivo 10 to help sort the different

codes into themes. This sorting began when the researcher started thinking about the relationship between the codes, themes, and the different levels of themes (e.g. main theme, overarching theme, and sub themes). NVivo 10 generated a conceptualization of the overall data patterns, and relationships between them. These relationships were also observable in NVivo after all themes had been identified for data patterns across data sets.

This phase continued with refining the initial set of themes. The researcher began examining which of the initial themes could fit into each other; while ensuring that the themes worked across the entire data set. During this phase, it became evident that some potential themes were not really themes given that in some instances, there were not enough data to support them, or the data were too varied, while others merged into one another, creating one theme. Still, other potential themes were broken down into separate, more specific themes. Data within themes should fit together meaningfully, while sustaining clear and identifiable distinctions between themes (Braun & Clarke, 2006).

This phase also involved two levels of reviewing and refining themes. Level one involved reviewing at the level of the coded data extracts. This meant that the researcher read all the coded data extracts for each theme, and considered whether a coherent pattern appeared. If the potential themes appeared to form a coherent pattern, then the researcher moved on to the second level of this phase. If the potential theme did not fit, then the researcher had to consider whether the theme itself was problematic, or whether some of the data extracts within it simply did not fit there. If necessary, the theme had to be revised, a new theme created, or the theme was discarded from the analysis. Once the

researcher was satisfied that the potential themes adequately portrayed the coded data and the thematic relationships were revealed, it was appropriate to move on to the next level.

Level two involved a similar process, but in relation to the entire data set. At this level, consideration was given to the validity of individual themes in relation to the data set, but also whether the concepts accurately reflected the meanings evident in the data set as a whole. The researcher next re-read the entire data set for two purposes. The first was to make certain that the themes worked in relation to the entire data set. The second purpose was to code any additional data within themes that was missed in earlier coding stages. The need for re-coding from the data set was expected as coding continued to be developed and defined throughout the entire analysis. However, when the refinements were no longer adding anything of substance, the researcher ceased the process. At the end of this phase, the researcher had a fairly good idea of what the different themes were, how they fit together, and the overall story they told about the data.

Phase 5: Defining and naming themes. In Phase 5, the researcher defined and further refined the themes that would be presented for data analysis. This involved identifying the essence of what each theme was about (as well as the themes overall) and determining what aspect of the data each theme captured. The researcher was careful not to identify what was of interest about the content of the data extracts and why. For each individual theme, the researcher conducted and wrote a detailed analysis. In addition to identifying the story that each theme told, the researcher also considered how it [the story] fit into the broader overall story about the data relative to the research questions, making sure that the overlap between the themes was minimal. Thus, it was necessary for the researcher to consider the themes individually and in relation to others; also

identifying whether a theme contained sub-themes. By the end of this phase, the researcher was able to clearly define what the themes were and what they were not by describing the scope and content of each theme in a couple of sentences. It was at this point, that the researcher also started thinking about definitive names for the themes in the final analysis that would capture the best sense of what the theme was about.

Phase 6: Producing the report. Phase 6 is the final analysis and write-up of the report which involves telling the intricate ‘story’ of the data, using rich, thick descriptions that improve the clarity of the findings and offer deeper meaning in a way that demonstrates the prevalence of the themes and convinces the reader of the merit and validity of the analysis.

Summary

This section discussed the process of data analysis in making sense of the data. To facilitate this process, Schroeder’s (2012) modified version of Braun & Clarke’s (2006) six-phase process for TCA was used. The process required the researcher to work back and forth between the data and the themes that developed to establish a comprehensive set of themes. The themes were used to write a textual description of the experiences of participants in the study relative to their sense of how self-efficacy influenced their leadership development over time after they had completed the ELAM program. The underlying experiences were documented in a rich description of the themes.

The Researcher’s Perspective

To further reinforce the trustworthiness of a study, the researcher’s biases and assumptions must be identified early in the study (Krippendorff, 2004; Lincoln & Guba,

1985; Mayring, 2000; Merriam, 1998). Noted earlier in the subjectivity statement, the researcher identified personal subjectivity and identified the means to alleviate the identified biases. The researcher alleviated biases by being aware of personal biases, worldviews, values, and assumptions brought to the study. Here, the researcher was transparent about recognizing divergence from initial expectations and maintained reflective memos to track how the data may have challenged early assumptions. These techniques were engaged with the clear purpose of avoiding biased analysis that would diminish the credibility of this study.

As Patton (2003) stated, “Reflexivity calls for self-reflection, indeed, critical self-reflection and self-knowledge, and a willingness to consider how one is affected by and how one influences, what is observed” (p. 299). As an analyst, this researcher’s “critical self-reflection” and “self-knowledge” was plausibly biased by prior administrative experiences, especially since this researcher has served as a director of various higher education, middle-management units and senior leadership positions,. The researcher attempted to reduce bias by keeping a subjectivity journal, viewed the study as a learner, and maintained appropriate protocol and integrity of the process. The process also included a peer debriefer (detailed in next section) whose role was to discuss findings and challenge the assumptions of the researcher. Strategies to address researcher bias are incorporated in the following section on trustworthiness of the study.

Trustworthiness of the Study

Trustworthiness in qualitative research refers to establishing rigor throughout the appropriate methods of the study (Hsieh & Shannon, 2005; Lincoln & Guba, 1985). The purpose of trustworthiness in a qualitative study is to maintain the argument that the

study's findings are "worth paying attention to" because they are rooted in authenticity (Lincoln & Guba, 1985, p. 290). There are specific strategies that can be used throughout the research process to increase the worth of qualitative research. According to Lincoln and Guba (1985), four strategies of trustworthiness require attention: (a) credibility, (b) dependability, (c) confirmability, and (d) transferability. This section will address these strategies and how they enhanced the trustworthiness of the current study.

Credibility

In qualitative research, the concept of validity is understood and labeled as credibility. According to Lincoln and Guba (1985), credibility is an evaluation of whether or not the research findings represent a "credible conceptual interpretation of the data drawn from the participants' original data" (p. 296); it is concerned with the accuracy of the information. They further argue that ensuring credibility is one of the most important factors in establishing trustworthiness. This strategy, which can be established using various techniques, essentially refers to the confidence one can have in the truth of the findings. To address credibility, the researcher employed five techniques: established research method, triangulation, peer debriefing, thick description of phenomenon under scrutiny, and reflective journaling.

Established research method. The adoption of research methods well established in qualitative investigation is a key criterion for demonstrating credibility (Shenton, 2004). The specific procedures employed, the process of data collection, and the methods of data analysis should be developed from methodologies and procedures that have been successfully used in prior studies comparable in nature. In this study, the researcher employed a qualitative content analysis method that utilized a theory-driven

and data-driven strategy for the thematic analysis of secondary data gathered from a previous study. These practices were performed in accordance with the established philosophical assumptions and interpretive lens of qualitative inquiry. In particular, scholars agree that qualitative content analysis, when applied to texts (as in this study) or other meaningful data using specialized procedures, yields replicable and valid results that can be upheld under scrutiny, especially when applying the same technique to the same data (Hsieh & Shannon, 2005; Krippendorff, 2013; Leedy & Omrod, 2005; Mayring, 2000; Neumendorff, 2002).

Triangulation. Triangulation is a powerful strategy for enhancing the quality of research, particularly credibility (Krefting, 1990). Specifically, the purpose of triangulation in qualitative research is to increase the credibility of the results. Scholars have aimed to define triangulation throughout the years. Triangulation is an attempt to map out or explain fully the richness of human behavior or the situation from multiple sources (Hsieh & Shannon, 2005; Manion, 1986; O'Donoghue & Punch, 2003; Altrichter, Feldman, Posch, & Somekh, 2008). Denzin (1978) identified four basic types of triangulation, as presented in Table 9.

To ensure a robust study and provide confidence in the study's results, this study employed three types of triangulation: data triangulation by time, observer (Denzin, 1989), and data source (Van Maanen, 1983) which was not included in Denzin's (1978)

Table 9

Types of Triangulation and the Current Study

Types of Triangulation	Key Description of Triangulation	Utilization in the Current Study
Data triangulation	Refers to gathering data through several sampling strategies such as at different times or on a variety of people	Data were reviewed at different times (1996, 1997 and 1999) and on a variety of people (119 women)
Observer triangulation	Involves multiple researchers to gather and interpret data	The research and peer debriefer were a part of the research process; research was reviewed by dissertation committee
Theory triangulation	Involves using more than one theoretical scheme in the interpretation of the phenomenon	Not applicable; used one theory (Bandura's self-efficacy theory and the four sources of self-efficacy)
Methodological triangulation)	Involves using more than one approach to gather data, such as interviews, observations, and questionnaires	Not applicable for this study; used secondary data

Note: Adapted from *The Research Act: A Theoretical Introduction to Sociological Methods*, by N. K. Denzin, 1978, p. 301.

model. Time triangulation occurs when researchers collect data about a phenomenon at different points in time (Denzin, 1989; Hsieh & Shannon, 2005). In this study, targeted interviews were conducted during discrete time intervals (0-13 months and 66 months) to ensure repeated engagement with each subject about the topic of individual leadership development. Observer triangulation transpires when different researchers study a topic independently and find similar results (Hsieh & Shannon, 2005). In this study, observer triangulation effectively occurred when the peer debriefer (discussed next), and the

dissertation committee reviewed the study to confirm the researcher's interpretations, coding decisions, and the development of categories.

Further investigation revealed data source triangulation as relevant to bolstering the credibility of this study. Data source triangulation involves a wide range of informants in which individual viewpoints and experiences can be verified against others; in essence, checking information across informants (Van Maanen, 1983). In this study, data source triangulation was met with the use of the interview data of 19 ELAM alumnae from various health professions who shared their interpretation and experiences relative to how self-efficacy influenced their leadership development over time. This strategy of using data from several interviews versus a single interview minimized distortion and researcher bias (Van Maanen, 1983).

Although the researcher identified biases brought to the study, triangulation was another method used to mitigate this issue which involved using multiple strategies in investigation to produce understanding. Through the use of time, observer, and data source triangulation, the effects of subjectivity were lessened and deeper understandings were facilitated. Thus, the credibility of the research was strengthened.

Peer debriefing. Several researchers recommend using peer debriefing, also known as peer review, to improve the credibility of qualitative research (Creswell, 1994; Lincoln & Guba, 1985; Merriam, 1998; Weiss, 1994). Lincoln and Guba (1985) defined peer debriefing as “the process of exposing oneself to a disinterested peer in a manner paralleling an analytic session and for the purpose of exploring aspects of the inquiry that might otherwise remain only implicit within the inquirer's mind” (p.308). They also asserted that the primary objective of peer debriefing is to provide an external audit of the

findings of the study. Spall (1998) asserted that peer debriefing is “necessary for producing high quality dissertations” (p. 284). Since the researcher is often the collector as well as the interpreter of the data, biases and sensitizing concepts can easily find their way into the work (Charmaz, 2003). To that end, the role of the peer debriefer is to provide a valuable “second opinion” on the meaning and interpretation of data, proposed categories, and codes as an external check of the research. According to Creswell (1998), peer debriefing in qualitative studies mirrors the idea of inter-rater reliability in quantitative studies. The peer debriefer may also query the researcher’s thoughts and perceptions (Creswell, 2007), serving as both conscience and critic for the researcher’s work. Since this study was based on secondary interview data, peer debriefing was an appropriate strategy to use.

To further enhance this study’s credibility, the researcher enlisted the assistance of a peer debriefer to review coding of interview data, provide a check against biases within the analysis, and also to aid with consistency, credibility, and reliability throughout the coding process in order to bolster trustworthiness of the study. The peer debriefer chosen for this study was Dr. Kulwinder Kaur-Walker, a PhD professor of psychology and Chair of the Institutional Review Board (IRB) at Elizabeth City State University in Elizabeth City, North Carolina. (See Vita Qualifications for the Debriefing in Appendix M.) Dr. Kaur-Walker has held several leadership positions throughout the university and by virtue of her profession, is familiar with the protocol for establishing trustworthiness in a study. The peer debriefer and the researcher worked together as colleagues for about 10 years and, over that period of time, became good friends and developed a very high level of trust. Further, the peer debriefer’s knowledge of the

context of this study and the process saved time as detailed explanations were not necessary.

The peer debriefing process was employed throughout the process of data analysis which required regular meetings. During our meetings, Dr. Kaur-Walker received regular progress reports of the project, and posed questions regarding the research questions, methodology, ethics, trustworthiness, and other research issues. She made observations and suggestions, and asked challenging questions throughout the process. The researcher recorded each significant interaction with the peer debriefer, noting subsequent changes that followed. In all instances where there was disagreement between the researcher and the peer debriefer, individual interpretations were discussed and the discrepancy was resolved during the meeting, building upon previous examples and conversations.

The insight, challenging queries, support, and constructive feedback of the peer debriefer throughout this research process helped enhance the credibility of the current study. Such interaction with an impartial colleague helped eliminate researcher bias and contributed to deeper reflexive analysis by the researcher.

Thick description of phenomenon under scrutiny. A detailed description of the phenomenon being studied is another important criterion for promoting credibility as it helps to convey the actual situations that have been investigated and, to an extent, the contexts that surround them (Shenton, 2004). Throughout this process, the researcher recorded rich, thick descriptions of how ELAM alumnae perceived their self-efficacy and its influence on their leadership development. This detailed account helped to place the

reader in the context of the study and to discern the extent to which the overall findings were true.

Reflective journaling. Another strategy that supported credibility in this qualitative study was the adoption of a reflective journal which was established at the beginning of the data analysis. Creating transparency in the research process was an important consideration as the researcher revealed credibility. The significance to recording decisions, and the thinking, values, and experiences that guided those decisions was important to make visible, to both the researcher and to the reader. Keeping a self-reflective journal was a strategy that facilitated the researcher's examination of "personal assumptions and goals" and clarified "individual belief systems and subjectivities" (Russell & Kelly, 2002, p. 2).

Dependability

Qualitative research methodology uses dependability similarly to the use of reliability in quantitative research designs. Dependability is an assessment of the quality of the integrated processes of data collection, data analysis, and theory generation (Lincoln & Guba, 1985). Dependability can be thought of as the researcher's account of the changes inherent in any setting as well as changes to the research design as learning unfolds (Marshall & Rossman, 1995). Lincoln & Guba, (1985) declared that credibility and dependability were closely aligned, arguing that, in practice, a demonstration of credibility does much to ensure dependability. To that end, in this study, the issues of dependability and credibility overlapped in that they both addressed the specifics of the research design and its implementation in terms of what was planned and executed on a strategic level; and reflective appraisal of the study which involved evaluating the

effectiveness of the process of inquiry. Such detailed methods allow another researcher to clearly follow the decision trail used by the investigator in the study; discussed later under audit trail. Notwithstanding, because this study used secondary data for analysis, Stewart (1984) posited that dependability would increase if the source of the secondary data could be deemed credible; thus, source credibility was used to enhance dependability.

Stewart (1984) asserted that when using secondary data sources, the dependability of the research is strengthened:

when the researcher knows the provider of the research in some way; where details of the data collection specifications and methodology are given; where the data are from an original rather than an acquired source; and where the provider of the data is prepared to be identified. (p. 93)

Using these criteria, dependability was strengthened for this study in that the researcher had access to the primary researcher (Dr. Sharon McDade) who was also the sole interviewer for the previous research. Dr. McDade serves as the current researcher's dissertation committee chair which enabled access to the original data that are now being used as secondary data in this study. Access included details of the interview protocol, deidentified raw data, data collection procedures, and methodology. To further strengthen dependability relative to source credibility, Dr. McDade was available to field questions and answer concerns that came up during the process of data retrieval, analysis and interpretation.

In sum, in addition to ensuring trustworthiness through the intersecting processes of establishing credibility and dependability, source credibility was included. The dissertation chair and her firsthand knowledge of the data and context of this study

provided the scrutiny necessary for determining whether this study was repeatable; thereby increasing dependability.

Confirmability

According to Lincoln & Guba (1985), confirmability is the qualitative equivalent of objectivity in quantitative research. More to the point, confirmability is a measure of how well the inquiry's findings are supported by the data collected (Lincoln & Guba, 1985). In other words, can the study be seen as credible to others. To address confirmability, the researcher again emphasized triangulation as a strategy to reduce the effect of researcher bias and highlighted details showing that the findings were consistent and could be repeated through the creation of an audit trail (Lincoln & Guba, 1985).

An audit trail is a clear explanation of the research steps taken from the beginning of a research project during and to the reporting of the findings. These are detailed accounts that are kept regarding what was done in an investigation (Guba & Lincoln, 1985; Merriam, 1998). This detailed record would allow an external auditor to inspect the research processes to reveal the sequence of data analysis that led to the findings of the study (Guba & Lincoln, 1986). An audit trail consists of the following items: (a) raw interview transcripts; (b) data analysis and reduction tools including categorical descriptions, matrices, spreadsheets and analysis files, interview and document summary forms, and researcher notes; and (c) process notes including selection criteria communications, trustworthiness criteria, and drafts of the study (Gall, Borg, & Gall, 1996; Lincoln & Guba, 1985; Morse, 1994). This description allowed for the verification of findings, minimized the influence of researcher bias, and should enable future researchers to build upon this dissertation. The table on the next page cites categories for

reporting information when developing an audit trail. The categories described in Table 10 (i.e., raw data, data reduction, and analysis products, data reduction and synthesis products, process notes, materials relating to intentions and dispositions, and instrument development information) are presented as central tenets of the audit trail. However, it helps future researchers follow a prescribed method for conducting similar investigations to determine if similar results would be obtained. As such, confirmability requires that the steps employed in an investigation be reported with clarity and detail, as shown in Table 8, making the research design serve as a “prototype model” for related future studies (Lincoln & Guba, 1981).

In sum, to address the difficulty of ensuring true objectivity, steps were taken to ensure, to the extent possible, that this study’s findings were the result of the experiences and ideas of the participants; not the characteristics and preferences of the researcher. The role of triangulation in promoting confirmability was reemphasized as was reflective commentary. But critical to this process was the “audit trail” which allows any observer or investigator to trace the course of the research step-by-step via the decisions made and procedures described. By providing a detailed account of the investigative process, the criterion of confirmability for this study was achieved.

Transferability

Lincoln and Guba (1985) stated that transferability is the qualitative equivalent of external validity in quantitative studies. In particular, transferability is the extent to which the findings of the study can be relevant or transfer beyond the bounds of a project (Fraenkel et al., 2012; Lincoln & Guba, 1985). To address transferability, the researcher engaged in creating thick descriptions. Rich, thick descriptions of the phenomenon of

Table 10

Audit Trail Categories

Categories	Description
Raw data	including all raw data, written field notes, unobtrusive measures (for this study only interview transcripts were available to the researcher)
Data reduction and analysis products	including summaries such as condensed notes, unitized information and quantitative summaries and theoretical notes
Data reconstruction and synthesis products	including structure of categories (themes, definitions, and relationships), findings and conclusions and a final report including connections to existing literatures and an integration of concepts, relationships, and interpretations
Process notes	including methodological notes (procedures, designs, strategies, and rationales), trustworthiness notes (relating to credibility, dependability and confirmability) and audit trail notes
Materials relating to intentions and dispositions	including inquiry proposal, personal notes (reflexive notes and motivations) and expectations (predictions and intentions)
Instrument development information	including pilot forms, preliminary schedules, and observation formats

study characterizes the process of paying attention to contextual detail in observing and interpreting social meaning when conducting qualitative research (Lincoln & Guba, 1985). In other words, a rich, thick description explains not just the behavior, but its framework as well, such that the behavior becomes meaningful to an outsider (Geertz, 1973). According to Creswell (2013), this should include a description of the setting,

participants, processes, and interactions such that the reader can discern whether the research is applicable to the population in a similar setting. It also includes a detailed description of the research methods: strategy of inquiry used; the researcher's role; sampling; data collection; procedures for recording, storing, and managing information; data analysis steps, including coding, interpretations, validation, and data presentation, all of which contribute to the transferability of the study.

This study endeavored to develop a thorough understanding of how self-efficacy influenced the leadership development of ELAM alumnae over a multi-year period of time, with scrupulous attention paid to detail, context, and tone. As such, the researcher sought to provide enough detail to enable future researchers to determine the applicability of the findings to their own research (Creswell, 2013; Merriam, 2002). Walker (1980) declared that "It is the reader who has to ask, what is there in this study that I can apply to my own situation, and what clearly does not apply?" (p.34) To that end, this researcher used rich, thick descriptions of the context of women in academic medicine and extensively used the participants' own voices to provide sufficient contextual information in order to facilitate the reader's determination as to the extent to which they feel the findings are transferable to their setting or group (Merriam, 1998; Polit & Hungler, 1999). The researcher was thorough in providing details of the scope and boundaries of the study; thus, the measures for transferability were met.

Summary

This section focused on addressing the challenges of demonstrating rigor and trustworthiness in a qualitative inquiry. Lincoln and Guba's (1985) constructs framed the elements of trustworthiness and the methods for affirming the integrity of this study. In

particular, a range of strategies were discussed that spoke to matters of credibility, dependability, confirmability, and transferability. In addressing credibility, the researcher attempted to demonstrate that a true picture of the phenomenon under scrutiny was presented. In meeting the criterion of dependability, the researcher aimed to enable repeatability of the study for future investigators. To achieve confirmability, the researcher took steps to show that findings emerge from the data and not from her own proclivity. Finally, to allow transferability, sufficient detail was provided for the reader to determine whether the findings can justifiably be applied to another setting. This study has followed the procedures necessary to ensure a trustworthy design.

Ethical Consideration of Human Participants

Ethical issues can compromise a study's credibility (Merriam, 1998). Caution must be implemented when human participants are central to the study, especially during the data collection process and distribution of findings stage. This ethical consideration is initially established through adherence to Institutional Review Board rules and review. There were two stages of IRB review for this project: (a) the initial ELAM interview project, and (b) review for this project.

Initial ELAM Interview Project IRB Review

The initial ELAM interviews were collected for another project that created the interview database. Researchers at Drexel University (the principal research site) and The George Washington University jointly pursued this initial research project. At both institutions, the title of the study was *Evaluation of the Effectiveness and Long-term Impact and Implications for Theory Building about the Leadership Development of Women: Hedwig van Ameringen Executive Leadership in Academic Medicine (ELAM)*

Program for Women-Alumnae. The documented information for that project included the name of the institution, the IRB project number, the protocol number, the title of the study, and all procedures. The name of the institution was MCP Hahnemann University, but now named Drexel University College of Medicine. The IRB project number is 3389. The protocol number is #01066-01. The documented information for the additional project was approved on April 16, 2002. (See Appendix N for the Drexel University IRB documentation that established the interview database used by this study.)

IRB Review for This Project

The researcher took the following step to make certain that the study was in compliance. The Institutional Review Board (IRB) of The George Washington University reviewed all the researcher's submitted documents. After review, the IRB at The George Washington University granted approval for the researcher to complete the study. (The IRB approval documents are found in Appendix O).

Chapter Summary

The overall purpose of this chapter was to provide the reader with an outline as to how the researcher generated the data in the study. An overview of the research paradigm, research design, and information on the theoretical constructs were provided. Also, a review of the research questions, and a description of the population and sample were presented. In addition, data retrieval and organization, and data analysis were provided. The chapter concludes with addressing research bias and ethical consideration of human participants.

CHAPTER 4: RESULTS

The purpose of this study was to explore the connection between self-efficacy and leadership development over a multi-year period among women in academic medicine following their participation in a specialized leadership development program. The purpose was addressed by analyzing interview data from alumnae of the Hedwig van Ameringen Executive Leadership in Academic Medicine® (ELAM) Program for Women, using a content analysis research design based on a constructivist worldview. The selection of interviews used data from the ELAM alumnae classes of 1996, 1997, and 1999.

The problem of practice addressed by this study was that, despite the fact that women have reached parity in entering and graduating from medical schools (AAMC, 2014), the percentage of women who advance to leadership positions is small. The research problem addressed in this project was that the existing literature is deficient in studies that focus on the exploration of self-efficacy and how it influences the leadership development over time, with no studies of women in academic medicine. Using Bandura's self-efficacy theory, this qualitative study was based on the thesis that Bandura's four sources of self-efficacy (performance accomplishments, vicarious experiences, verbal persuasions, and physiological states) are determinants of success over time for ELAM alumnae who achieve leadership positions in academic medicine.

The chapter begins with a review of the components of the study, followed by a summary presentation of the participants, self-confidence and the participants, presentation of data relating to each operational research question, and a chapter summary.

A Review of Components of the Study

There are two key components for this study: the secondary data and the analysis process. For this study, secondary data consisted of interview transcripts from women academics in medicine after their participation in the ELAM Program, a specialized leadership development program. This Program, established in 1995, is a distinctive response to address the gap in women's leadership in the field of academic medicine. The Program is intended to inspire and prepare women to enter into new leadership ranks or to develop their current positions. Originally designed to serve senior women faculty in medical schools, ELAM now also includes women academics in dentistry and public health. The yearlong, part-time course of study develops the professional and personal skills required to lead and manage successfully in today's complex healthcare environment. Attention is devoted to the unique challenges facing women in leadership positions.

The population for this study was senior women academics (associate and full professor ranks) in medical schools in the U.S., Canada, and Puerto Rico. It is from this population that ELAM draws its participants. These women have earned the MD, DDS, PhD degree or a combination.

Through an interview design using open-ended questions, the participants were asked to describe their perceptions and experiences with leadership as it related to their professional and personal experiences after their ELAM experience. The participants in three ELAM classes (1996, 1997, and 1999) were the focus of the project. Details about the sample selection and the women from within these classes are provided in Chapter 3.

Of the 119 eligible alumnae from these three classes (1996, 1997, and 1999), 94 or 78% elected to participate in at least one interview. While all 94 alumnae were invited to participate in multiple interviews conducted at discrete time intervals, ultimately 31 women did so. As indicated in Chapter 3, the discrete times used in this study were Time 1 (interviews conducted 0 to 13 months after completion of the ELAM Program) and Time 2 (interviews conducted on average 66 months or 5.5 years after completion of the ELAM Program) as the selection of these two touch points provided the largest number of participants for this study.

The researcher rated the interview transcripts for these 31 alumnae who had participated in the chosen touch point interviews as these related to self-efficacy using scores of high, medium, and low levels of evidence. As shown in Table 7 (Chapter 3), this resulted in the discovery of 19 alumnae who extensively used language (i.e., medium to high) relating to self-efficacy. These interviews were then selected for use in the study following this preliminary screening of the interview transcripts.

The second key component of the study was analysis process, which consisted of an examination of each interview transcript and then proceeded to an analysis across all interviews (cross-interview analysis). Three steps comprised this comprehensive process. First, this process involved analyzing the entire set of interview transcripts for the 19 study participants for each of the touch points or times, (i.e., Time 1 and Time 2). Specifically, individual interviews collected at the point of Time 1 were analyzed and then individual interviews collected at the point of Time 2 were analyzed. Second, analysis was done across the two times as the interviews for a particular woman were analyzed across her Time 1 and Time 2 interview set. Third, a cross-interview analysis

was conducted across the sets of interviews (Time 1 and Time 2) for all 19 study participants.

In summary, and as stated in Chapter 3, the interviews were conducted over time with individual alumnae of the ELAM Program for which there had been deemed through the stratified, purposeful sampling strategy to be attention to the development of self-efficacy. A within-interview analysis compared the data against the four sources of self-efficacy and sought trends. The cross-interview analysis associated categories across interviews to discover common themes.

The Participants at a Glance

Each of the 19 women who comprised the sample for this study had a unique background and career path within academic medicine. Table 11 provides key information on each study participant. Job duties and responsibilities were noted by the women in their interviews. In some interviews, the women did not completely document all titles or leadership duties linked to their work; to the extent possible, the researcher read across interview time points to identify titles and leadership responsibilities that connected to a particular woman. The information was most often gleaned from Time 2 responses to questions that asked for updates or recaps since completing ELAM. The women also shared other information relating to accomplishments they had achieved along their career journeys. The interview transcripts were provided to the researcher with key identification information redacted; thus, it was not possible to identify exact titles and duties from a corroborating source such as a curriculum vita. However, it was possible to determine that each of the positions was held within schools or colleges of

medicine, except for one in Time 2, which was held within a health care foundation. It should be noted that many of the study participants were somewhat casual in identifying

Table 11

Participants at a Glance

Participant	Job Duties and Responsibilities Time 1	Job Duties and Responsibilities Time 2	Additional Accomplishments Within Either Time
Dr. Mary 96*	Division Chief	Associate Dean	Professor of clinical discipline
Dr. Ellen 96	Dean of Students	Chair, clinical department; Director of clinical center	Feature Editor of a journal; Chair of an international ethics committee within discipline
Dr. Earlene 96	Researcher	Director of Institute	Editor of a journal; Professor in clinical department
Dr. Harriet 96	Clinician	Associate Dean	Professor in clinical department; Designated Institutional Official for GME
Dr. Donna 96	Clinical Division Director; President of the Faculty Senate	Executive Director Health Care Foundation	Senior advisor to federal health administrator; numerous radio and TV interviews
Dr. Maggie 96	In charge of Medical Student Education	Senior Associate Dean	Professor in clinical department
Dr. Brenda 97**	Chair, clinical research department	Professor of clinical discipline	Co-director of clinical research program; seven years in pharmaceutical industry
Dr. Carolyn 97	Vice President	Executive Vice President; Chief Academic Officer	Established leadership development course for department chairs, division heads, and senior faculty
Dr. Evelyn 97	Associate Dean for Students	Senior Associate Dean	Professor; media commentator on health issues
Dr. Frances 97	Associate Dean	President and Dean	Fellow in two national leadership programs

Dr. Gail 97	Vice President and Secretary	Liaison Officer for Board of Trustees	Appointed dean of clinical school
Participant	Job Duties and Responsibilities Time 1	Job Duties and Responsibilities Time 2	Additional Accomplishments Within Both Times
Dr. Freda 99	Director of Residency Program	Associate Professor of clinical discipline; Chief of clinical center	Oversee various international teaching programs involving clinical residents
Dr. Gloria 99	Program Director of clinical department	Director and Associate Dean of GME; Vice Chair of clinical committee	On AAMC steering committee; Member, AAMC Advisory Board
Dr. Irene 99	Vice Chair, Clinical Department; Director of Clinical Program	Dean of clinical school	Professor of clinical discipline
Dr. Janet 99	Assistant Dean	Vice Dean	Established a mentoring program for women faculty
Dr. Olivia 99	Director of Clinical Education	Director of Clinical Medicine	Associate Professor of clinical discipline; Head of a faculty development program
Dr. Teresa 99	Associate Dean; Dean of Student Affairs	Interim Dean; Associate Vice President	Professor of clinical discipline; Served as head of faculty affairs group
Dr. Abbey 99	Clinical Researcher	Director of clinical programs	Professor of clinical discipline
Dr. Samantha 99	Associate Dean	Associate Dean for GME; Women's Liaison Officer	Professor of clinical discipline

*Study participants with code numbers starting with 96, 97, and 99 were members of the ELAM Classes of 1995-1996, 1996-1997, and 1998-1999 respectively. The positions held by the study participants were located within colleges or schools of medicine except one which was held within a health care foundation. Note that information for each woman as to their Time 1 job duties may have come from either their Time 1 or Time 2 interviews or both; thus, some of the Time 1 information was only discoverable through the Time 2 interview.

**Participant's comments did not indicate the timeframe (pre- or post-ELAM) of her tenure in the pharmaceutical industry; thus, she was categorized with the academic group.

their academic ranks in both the Time 1 and Time 2 interviews. Thus, it was not possible to determine exactly who had progressed in academic rank between the interviews. Since ELAM only admitted women at the associate or full professor rank, it can be assumed that all study participants held one of these ranks at both interviews even if the woman did not identify an academic rank. Although the participants' interviews were de-identified, the researcher applied the participants' class year and a pseudonym to distinguish each interview transcript.

As illustrated in Table 11, participants of the ELAM Program came from diverse medical or academic discipline backgrounds and, in most cases, advanced or were given additional internal or external responsibilities between the two interview points. In both times (Time 1 and Time 2), all of the women provided their medical and academic discipline.

The remainder of this section examines these 19 participants in terms of their self-identification of their medical, academic and administrative roles. These are explored first, in terms of disclosure in Time 1; then in Time 2; followed by an examination of identifiable trends from Time 1 to Time 2.

Based on the self-reporting of the participants in their interviews regarding employment, duties, and activities, participants were categorized into four groups (with some overlap): (a) practicing medicine; (b) leading in line and staff positions in academic affairs in medical schools and other academic units; (c) leading research entities such as centers or groups; and (d) leadership in agencies and organizations outside higher education such as government and non-profit organizations. It is important to note that some study participants may have had intervening jobs and positions that they did not

mention in their Time 2 interviews. Since the researcher could only rely on what was explained in the interviews, any other positions not explicitly noted by the interviewee can be included in this categorization discussion.

Medical, Academic or Other Disciplines: Time 1

Time 1 descriptions of job categorization described below come from both Time 1 and Time 2 interviews. In the first category of practicing medicine, two women (Dr. Mary 96 and Dr. Harriet 96) acknowledged their work as professors and clinical practitioners.

The second category of leadership within line and staff positions in the medical schools and other academic units included 16 participants (all but Dr. Earlene 96, Dr. Harriet 96, and Dr. Abbey 99). Examples included president of the faculty senate (non-administrative elected position); leadership in academic clinical departments (chair, vice chair, and division chief); program directors of academic or administrative units; Assistant and Associate Deanships in the medical school; and university roles (Vice President).

The third category, providing leadership within the research function, such as heading a research center or group, included four participants (Dr. Earlene 96, Dr. Brenda 97, Dr. Irene 99, and Dr. Abbey 99). The positions reported included: executive director of a research center, managing a lab that comprised from “four to ten people depending on what year and what the funding is;” leading “a very large research and public health program;” being “sort of in the middle” regarding management and, claiming a mental health work group as her “research career piece;” and various academic administrative positions.

The fourth category, leadership outside of higher education such as in government agencies and non-profit organizations, included no study participants at their Time 1 interviews.

Medical, Academic, or Other Disciplines: Time 2

All 19 participants identified their employment and duties. They appeared to continue their academic appointments and service as academicians or clinical professors in their medical disciplines between Time 1 and Time 2 interviews.

In the category of line and staff leadership within academic affairs, 18 of the 19 women (all but Dr. Donna 96) provided self-identification of relevant roles and activities. The changes included: rising to associate dean or vice deanship roles; assuming leadership roles such as associate or executive vice president, chief academic officer; liaison officer between the president and the board; president, dean, interim dean; becoming chief of a children's medical center; directing clinical or research centers or institutes; becoming a clinical department chair; and promotion to professor. Two participants, (Dr. Maggie 96, Dr. Evelyn 97) each commented that she was the highest ranking woman ever in her medical school.

There was one study participant who fit the fourth category, leadership in agencies and organizations outside higher education; Dr. Donna 96 had become a senior advisor to a major health agency and ultimately executive director of a foundation. However, six other participants (Dr. Ellen 96, Dr. Earlene 96, Dr. Brenda 97, Dr. Evelyn 97, Dr. Freda 99, and Dr. Gloria 99) disclosed that they had held or were currently holding leadership roles outside of higher education. These roles included: editorships; and chair of an international disciplinary society committee; positions in the

pharmaceutical industry; producing weekly TV airings in 100 various markets; leading a large-member organization with a number of medical schools and international reach; and chairing a steering committee and serving on an advisory board for a major medical organization. This list is not comprehensive since the participants commented on such roles informally during their interviews; however, they provide a spectrum of the leadership roles held by ELAM graduates five years after graduation.

Trends of Employment from Time 1 to Time 2

After participating in the ELAM Program, all participants either increased in job responsibility, changed in category of employment, or enhanced responsibilities or accountability (see Table 12). All study members were informal in identifying their academic ranks in their interviews; so, it was impossible to precisely label change in academic rank between interviews.

Trends in practicing medicine. Participants were informal in identifying their clinical practice roles, so it was difficult to understand how clinical practice roles may have changed as they changed and advanced in formal leadership responsibilities. At Time 1, two members (Dr. Harriet 96 and Dr. Abbey 99) identified as clinical practitioners; both, by Time 2 described their involvement in various leadership roles within their schools as being primarily with committees. The women who advanced into full-time, senior level administrative positions concentrated their interview discussion on this work and tended not to comment on any continued engagement in clinical practice. Because of the nature of medical school life, many of these women were simultaneously

Table 12

Summary of Participant's Employment, Duties, and Activities at the Point of Time 1 and

Time 2 Interviews

Categories	Time 1	Time 2
Practicing Medicine	n=2 Dr. Mary 96* Dr. Harriet 96	n=2 Dr. Mary 96* Dr. Harriet 96 *
Leading in line and staff positions in academic affairs in medical schools and other academic units	n=16 Dr. Mary 96 Dr. Gail 97 Dr. Ellen 96 Dr. Freda 99 Dr. Donna 96 Dr. Gloria 99 Dr. Maggie 96 Dr. Irene 99* Dr. Brenda 97* Dr. Janet 99 Dr. Carolyn 97 Dr. Olivia 99 Dr. Evelyn 97 Dr. Teresa 99 Dr. Frances 97 Dr. Samantha 99	n=18 Dr. Mary 96 Dr. Frances 97 Dr. Ellen 96* Dr. Gail 97 Dr. Earlene 96* Dr. Freda 99* Dr. Abbey 99* Dr. Gloria 99* Dr. Harriet 96 Dr. Irene 99 Dr. Maggie 96 Dr. Janet 99 Dr. Brenda 97* Dr. Olivia 99 Dr. Carolyn 97 Dr. Teresa 99 Dr. Evelyn 97* Dr. Samantha 99
Leading research entities such as centers or groups	n=4 Dr. Earlene 96 Dr. Irene 99 Dr. Brenda 97 Dr. Abbey 99	n=5 Dr. Ellen 96 Dr. Brenda 97 Dr. Earlene 96 Dr. Abbey 99 Dr. Donna 96
Leading in agencies and organizations outside higher education such as government and non-profit organizations	n=0 No participants under Time 1 in this category	n=6 Dr. Evelyn 97 Dr. Brenda 97 Dr. Ellen 96 Dr. Freda 99 Dr. Earlene 96 Dr. Gloria 99
Total Participants	n=22	n=31

*Indicates that participant's name was mentioned more than once within time column and thus, the total number exceeds the actual number of participants.

practicing medicine through their institution's medical practice plan as they rose in leadership roles. That is, these women most probably continued practicing medicine as

part of their professional lives, but these roles may have diminished in importance or allocated time.

Trends in leadership in academic affairs. Leadership in various aspects of academic affairs was the most conspicuous of all the categories. As noted earlier in this chapter, in Time 1, 16 of the 19 participants from all classes (all but Dr. Frances 97, Dr. Abbey 99, and Dr. Harriet 96); and in Time 2, 18 of the 19 women from all classes (all but Dr. Earlene 96) reported holding line and staff positions in academic affairs in medical schools and other academic units.

Trends in leading research entities. Leading research entities such as centers or groups was the third category, self-identified by four women in Time 1 and five women in Time 2. Three women, Dr. Earlene 96, Dr. Brenda 97, and Dr. Abbey 99 identified themselves in this category in both Time 1 and Time 2.

Trends in leadership in agencies and organizations outside higher education. The final category was leadership in agencies and organizations outside higher education such as government and non-profit organizations. No women self-identified during the Time 1 interviews, while six did so from all three classes in the Time 2 interviews.

Summary of Employment Trends

Eighteen of the 19 women, between their Time 1 and Time 2 interviews, progressed in job responsibilities and advanced in occupational hierarchy in academic medicine. Only one participant moved from academic medicine into employment with a federal agency that still involved health matters. Although their career experiences and or activities varied, the common theme for all the participants was hierarchical advancement or additional work and leadership responsibilities. To that end, it should be

noted that at Time 2, most of the women held multiple named leadership roles which is not unusual in the field of academic medicine.

Self-Confidence

Before considering how the participants' interviews related to Bandura's concepts of self-efficacy, it is important to first look at the theme of confidence (also expressed as self-confidence). While Bandura's specifications of the meaning of self-efficacy is very specific and well defined in his research (Bandura, 1997), confidence is more of a common usage term that is only as specific as its dictionary definition: "a feeling or belief that you can do something well or succeed at something" (Merriam Webster online dictionary, 2015). According to Bandura (1997),

...the construct of self-efficacy differs from the colloquial term 'confidence.' Confidence is a nonspecific term that refers to strength of belief but does not necessarily specify what the certainty is about... Perceived self-efficacy refers to belief in one's agentive capabilities that one can produce given levels of attainment. A self-efficacy belief, therefore, includes both an affirmation of a capability level and the strength of that belief (p. 382).

Bass (1999) claimed that while self-confidence and self-efficacy are not identical conceptually, they are closely aligned. With this in mind, it is important to start this data presentation with consideration of the use of "confidence" and "self- confidence" by the study participants.

Evidence of Self-Confidence

Confidence and self-confidence surfaced in all 19 participants' interviews for a total of 106 comments. The data consisted of 48 mentions by 15 participants in Time 1 and 58 by 17 participants in Time 2, with 13 participants making comments related to confidence in both times. The participants and representations of their statements of

confidence are presented in Table 13. Following the table, an analysis and some examples of the more rich statements will be offered to further illustrate this finding.

Table 13

The Study Participants and their Statements of Confidence after ELAM

Participants	Statements of Confidence
Dr. Mary 96	“I’m responsible for things getting done right, so I have to apply the issue of motivation, persuasion and so forth... I feel that I’m ready to move up to other administrative positions within our institution...” (Time 1)
Dr. Ellen 96	“Previously I saw my job as home base and home base is where I was all the time. Now I see my job as home base but I am running the bases... I haven’t articulated this even to myself before, so we’re in new territory. I think what’s happened is I’ve realized that he’s not in charge, I am... I see my career as having fewer boundaries.” (Time 1)
Dr. Earlene 96	“On a personal level it gave me a lot of self-confidence...I mentioned self-confidence and that’s a big piece of it...Why am I better than I was two weeks ago? It’s a self-confidence issue... Well it’s a bit more than that. It’s that you can do this too, there’s nothing that holds you back from what you want to be... it’s that knowing that I can do anything makes me accept what I can do here and be better at it.” (Time 1)
Dr. Harriet 96	“Because I now have enough scope of my position that I fear that I’m becoming a very limited step...you really can’t get much done at my school anymore unless I ok it...so I think I came back with more confidence...(Time1) we have like about five associate deans, but I think I am perceived as being the most powerful one...” (Time 2)
Dr. Donna 96	“Well I found it extremely elevating that I had this amount of time set aside for my own personal and professional development.” (Time 1)
Dr. Maggie 96	“I’ve always...and this sense of myself didn’t change at all, I still and have always seen myself as a great work horse. I mean I have stamina, I have long term motivation... I’m just a real steady as she goes worker.” (Time 1)
Dr. Brenda 97	“I’ve always felt that I had leadership skills; People like to put me on committees because I can get things done on committees...I can get people to work together as a group.” (Time 1)
Dr. Carolyn 97	“Well, there’s clearly for me, a big step up in confidence level, in terms of dealing with the other executives in my institution and in dealing with other executives at other institutions...” (Time 2)

Participants	Statements of Confidence
Dr. Evelyn 97	“I learned that I’m probably the person with the most ability to go where I want go and do what I want to do...I often have a more positive picture of myself than other people have of me.” (Time 1)
Dr. Frances 97	“I was confident in terms of what was going to happen before and I’m confident now too.” (Time 1)
Dr. Gail 97	“I just have more confidence...I mean it solidified my thinking about...I have this capacity and I can do it and I will do it.”(Time 1)
Dr. Freda 99	“...it doesn't happen very often, but we know we could. And, that knowledge is important - it gives a person a lot of strength... I have developed enough strength to move a little faster out of my current position, and to move towards those things that I want to do which are kind of big scary, put-yourself-out-on-a-limb kind of work... I'm in charge of it, which is also a whole lot more fun then [<i>sic</i> /saying, "Mother, may I?" (Time 1)
Dr. Gloria 99	“I think ELAM and ... some of the exercises that we did and so forth, some of the interactions made me feel much more confident about the administrative ladder as something that’s necessary, important, and needs to be done well... I think it was there underneath and gave me more encouragement to continue to do it... I think created more of a feeling of self worth, and confidence... In trying to get them to work together for a common goal... I think maybe I had more confidence about doing it at that point...” (Time 2)
Dr. Irene 99	“I am well known nationally among the other deans and feel equitable in a room full of deans and so on...I started with nothing. I count the time at this school from the time I arrived and I don’t count the time before then. That’s just how it is. So, I knew, I think of all of the things that I always knew but am finally acting on...” (Time 2)
Dr. Janet 99	“... I always had confidence that I could do anything I wanted to do... And I think it’s more the confidence, I would say confidence, I had confidence before ELAM. I am a confident kind of a person and I could do it and I could learn things. I didn’t have trouble say taking over medical education because I had confidence in my own ability to learn the stuff and know whatever I have to know to do it...” (Time 1)
Dr. Olivia 99	“I think I have more confidence. I feel that I have more competence also, that I know more things... you know that you develop and you feel more confident as you get older and you’re a, you’ve learned more in some ways...”(Time 2)
Dr. Teresa 99	“It really energized me – made me really know that I could go out there and really go for it. It’s really great.” (Time 1)
Dr. Abbey 99	“...My view of what I have to offer a system isn’t just ‘Gee, do they want me as chair?’ It’s ‘Gee, these are my skills and they are really very marketable’...” (Time 1)
Dr. Samantha	“I feel better about it, like hey, you know...this was just fine. And I

99	feel better about GME and I feel more able to speak about issues, I feel like I'm more able to use my voice, I don't know, in a certain level of confidence..." (Time 2)
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Continuing with the theme of confidence, one participant spoke about the encouragement she received from ELAM Fellows and various others; and how it raised her awareness and increased belief in her abilities as a leader going forward.

...I'm in a very different structure than most of the other ELAM fellows, and I felt very much like this is where I was going to have to remain and work within. And they gave me the confidence to say...not just the fellows, but the staff and so forth...that I do not have to stay here at this institution, that I can go elsewhere and I can be something elsewhere. And that's very freeing... I think that the main that ELAM did for me was it told me that I could be a leader too... My mind set is that I can be something here if I want to be... It's how are you perceived as a leader, what does it take...it's the way you talk, it's the way you think about things, it's the way you stand and sit as well... I can actually have the self-confidence to do this, that I can now go back in my mind and say 'Here's a situation that is uncomfortable for me, why is it uncomfortable and what skills can I pull that ELAM has given me to make this situation go through the process I want it to be and in the direction I want it to be.' (Dr. Earlene 96, Time 1)

She also said that over time, she gained more courage and self-confidence such that she could initiate a dialogue with anyone about anything no matter where it was.

...you just get braver, just your general level of self-confidence, or at least mine, being an introvert which is one of the things I discovered about myself at ELAM, my level of self-confidence grew to the point that I could start a conversation with a male stranger in an airport or in a hallway, in an elevator, outside and elevator, or something, so there was a certain amount of self-confidence that I gained that allowed me to be braver in a male female that might have been academic or other business... You know, I just started over, but again, that degree of self-confidence that you have allows you to pick up the phone and call somebody you don't even know and say hi I'm so and so and feel that you are not imposing. (Dr. Earlene 96, Time 2)

A second participant shared that she felt more capable, empowered, and confident since ELAM and the validation she received.

the feeling of much more competence about what I did having events and things that I do in my day-to-day job, just by virtue of the fact that I received the extra

training and got some validation from the people at ELAM that what I was doing was reasonable... I think a little more confidence about looking at a budget sheet... the whole budgeting process seemed a little less intimidating. I just got much more confident about asking for things too, you know, to my boss... the stuff that we do in ELAM is pretty empowering... certainly some of the confidence that I had to do it would be from ELAM... I think sometimes I might have not felt confident enough to ask for stuff before ELAM and now I'm beginning to think it just gave me some more confidence in my ability to speak my mind... ascribe some of this to the confidence in ELAM but I think also you get a little confidence as you age and you've just been there and done that and the more gray hair you have I think you're afforded a little more credibility than you were. (Dr. Evelyn 97, Time 2)

Pertaining to leadership, a third participant spoke about learning not to be intimidated and acknowledged that what she did not know were lessons to be learned. She also spoke from the perspective of feeling confident that what she did not know, she could learn.

I think the biggest lesson that I've learned since ELAM is to not be intimidated by what I don't know. Kind of two perspectives. One is that I need to have the self-assurance that I can learn a lot and that I can learn a lot in a short period of time and I think stepping into the interim dean role I could have said oh my gosh, I don't know this whole chunk of information about the business of medicine and even how is JME funded and all of that and I had the confidence to think that yeah, there was going to be a learning curve but that eventually I was going to be able to master it and have the confidence that I could do that. That's one, but the other is having enough confidence in myself that I am willing to admit when I don't know something... But I think the courage and self-confidence to be able to go out there to show my vulnerability is something that ELAM kind of facilitated in what I've learned about leadership since then. Nobody knows everything. You are never going to have a new leader that has mastered all of the different areas that need to be dealt with. And so how you approach that I think is absolutely key. (Dr. Teresa 99, Time 2)

Analysis of Confidence Finding

One of the most reported findings in the leadership literature is the relationship between a leader's self-confidence and successful leadership (McCormick, Tanguma & López-Forment, 2002). All major reviews list self-confidence as an essential characteristic for effective leadership (Bass, 1990; House & Aditya, 1997; Northouse,

2013, Yukl & Van Fleet, 1992). All of the women in this study made comments that seemed to be consistent with these scholars' assertions. They commented on how attending ELAM had instilled confidence in their abilities as leaders and had increased their belief. For example, Dr. Earlene 96 said, "I think that the main [thing] that ELAM did for me was it told me that I could be a leader too...I can actually have the self-confidence to do this..." "I came back with more confidence..." were Dr. Harriet 96's words, "...because I now have enough scope of my position...you really can't get much done at my school anymore unless I ok it..." These women's expressions seemed audacious and exuded confidence; and would appear to encapsulate self-efficacy.

In her expansion of Bandura's (1997) self-efficacy theory, Hackett (2008) referenced self-efficacy as an individual's confidence in his or her ability to succeed at a task or in a field of endeavor. Locke (1991a) concluded that, "self-confidence is a necessary trait for successful leadership is undisputed" (p. 26). As to charismatic leaders, House and Howell (1992) contended that, theoretically, they "need to have a very high degree of self-confidence" (p. 87). These affirmations for self-confidence suggest a strong connection to leadership performance. Even so, McCormick et al. (2002) posited that research has found that personal efficacy influences the goals people choose, their aspirations, how much effort they will exert on a given task, and how long they will persist in the face of difficulties, obstacles and disappointments (Maurer, 2001); and that findings show that "efficacious individuals are motivated, persistent, goal-directed, resilient, and clear thinkers under pressure" (p. 36). Locke (1991) countered that, over time, research on effective leaders have characterized them as highly committed,

determined, resilient, goal-focused, resourceful and effective problem solvers; suggesting similarities in the characterization of self-efficacy.

To that point, given the stance on highly efficacious individuals, McCormick et al. (2002) stated that what leadership researchers have been describing is a person with high self-efficacy for the leadership role. Still, other scholars claimed that while self-confidence and self-efficacy are not identical conceptually, they are closely aligned (Bass, 1990); Williams (1997) linked self-confidence with situation-specific self-efficacy; and Chemers (1997) declared that engaging in leadership behaviors required by the situation are influenced by the individual's self-confidence.

Whether the leadership behaviors can be attributed to self-confidence or self-efficacy, the women in this study shared comments that seemed to display the behaviors and mindset indicative of highly efficacious and confident leaders. For example, regarding problem-solving and resourcefulness, one participant said:

...People like to put me on committees because I can get things done on committees, I can get people to work together as a group... I've also now realized people that come to me and ask me to do things are doing it because my name carries some weight, it has some credibility... and I realize that that's a valuable commodity now too. (Dr. Brenda 97, Time 1)

Concerning being goal-directed, Dr. Carolyn 97 made this comment, "...it really helped me to see myself in a leadership role and that was very helpful for me actually wanting to move forward and actively pursuing a step up into an administrative position..." As to the mindset of being committed, motivated, and determined, Dr. Gail 97 made these remarks: "...you'd say to yourself, 'I'm in it or I'm not in it.'" And at that time I said I'm in it. I want to do this. I find this exciting...then I did it, I stayed in it..."

The ambiguity associated with self-efficacy and self-confidence creates an opportunity for further study.

Across interviews and across times, the analysis revealed that all 19 participants shared comments about increasing their confidence over time. As an example, Dr. Earlene 96 disclosed thoughts about her leadership journey that seemed to show a progression of what she called confidence. This seemingly steady progress towards “freedom” looks like it took place over time but began before her first interview after her ELAM experience. This is how she described her ELAM experience and subsequent journey: (a) “...on a personal level it gave me a lot of self-confidence...”, (b) gave specific examples of six talks in one week and attributed it to self-confidence saying, I am “...better than I was two weeks ago...(c) “It’s that you can do this too, there’s nothing that holds you back from what you want to be...” (d) began to think more clearly about her future; from thinking she was going to remain where she currently was to affirming, (e) “...I do not have to stay here at this institution...I can go elsewhere and I can be something elsewhere... (f) And that’s very freeing... (g) changed mindset and perception as a leader “...It’s the way you talk, it’s the way you think about things, it’s the way you stand and sit as well...” (h) understood how to problem-solve in uncomfortable situations, “...what skills can I pull that ELAM has given me to make this situation go through the process I want it to be and in the direction I want it to be in...” and (i) “more flexible and adaptable...I’m going to meet the goals that I want to do...” In her second interview, it seemed that Dr. Earlene 96 was building on the confidence and mindset that she had developed prior to her Time 1 interview. She shared that she was an introvert whose “level of self-confidence grew to a point that I could start a

conversation” with women or men anywhere and be confident. She said, “...you just get braver...” This example is consistent with the literature related to self-efficacy and self-confidence.

To substantiate this finding, Chemers (1997), in his integrative theory of leadership, contended that an individual’s estimate of his or her ability to engage in the leadership behaviors required by the situation (his or her leadership self-efficacy) is influenced by the person’s self-confidence. In addition, Stajkovic and Luthans’ (1998a) meta-analysis found that workplace performance improvement could be attributed to task-specific confidence (Bandura’s definition of self-efficacy); albeit, it did not specifically address leadership performance. Further, as presented earlier in this finding, several scholars substantiated confidence as related to leadership performance (Bass, 1990; Hackett, 1995; Locke (1991); McCormick et al., 2002; Northouse, 2009; Yukl & Van Fleet, 1992). Notwithstanding Bandura’s (1997) earlier separation of self-efficacy from confidence, the National Academy of the Sciences (1994) described performance accomplishments as being “situation-specific self-confidence”. While empirical evidence exists on the subject of self-confidence and leadership development there were no studies found directly related to self-confidence and the leadership development over time of women in academic medicine.

In summary, all of the participants responded with robust comments to this finding either directly or indirectly and showed an increase in self-confidence over time. The numerous comments made related to confidence validate Bandura’s (1997) self-efficacy theory in general.

Presentation of Data Related to Sub Research Questions

This study focused on one principal question: How is self-efficacy connected to the leadership development of women in academic medicine over a multi-year period following their participation in a specialized leadership development program? Using Bandura's four sources of self-efficacy, this question was operationalized through five sub questions. In this section, data will be presented in five sections to address these five sub questions: the performance accomplishments of the women and their leadership development; an examination of their vicarious experiences and their leadership development; an exploration of the verbal persuasion and their leadership development; the influence of physiological states or emotional cues relating to their leadership development; and an exploration of the women's other experiences that might inform self-efficacy theory in relation to the leadership development of women in academic medicine. Throughout this presentation of the data, excerpts from the interviews are used to show references to the themes. At the end of each theme, an analysis over time is presented using examples of participants who mentioned the theme at both Time 1 and Time 2 of their interviews. In order to help the reader to better connect the self-efficacy focus of each research question to the participants' responses, the definition is, again, provided in the introduction to each question. An analysis of these findings and relationship to the literature will be presented in Chapter 5.

Research Sub-Question 1: Performance Accomplishments of the Study Participants

Using the constructs of Bandura's (1987, 1997) self-efficacy frame, Sub-Question 1 focused on examining the participants' performance accomplishments (mastery experiences) relating to their leadership development. Bandura (1997) defined

performance accomplishments as the acquisition and integration of expert knowledge or outstanding ability accumulated over time that is “organized under continually changing conditions” (p.86). This was the self-efficacy source most frequently referenced; all participants spoke about this. Collectively, there were 470 references to performance accomplishments within both times; 155 from Time 1 and 315 from Time 2. Table 14 shows the percentage of change across interview points in time by the performance accomplishments theme. In response to the interview questions, study participants provided a number of descriptions of their performance accomplishments regarding their leadership development.

Table 14

Percentage of Change across Interview Points in Time by the Performance

Accomplishments Theme

Performance Accomplishments Theme	All Participants Time 1	All Participants Time 2	Total No. References	Percentage of Change
Skill Development	125	236	361	88%
Decision-Making	7	55	62	686%
Goal Setting/ Strategies for Change	23	24	47	4%
Total	155	315	470	103%

The performance accomplishment descriptions clustered mainly in the three established areas of Bandura’s (1987, 1997) self-efficacy frame and ranked as the top three themes: (a) skill development, (b) decision-making, and (c) goal setting. Further examination revealed six subthemes within one major skill development area as shown in Table 15. The three themes and subthemes are described in separate sections in this data

presentation for the sake of clarity. However, there is considerable overlap among them as participants' stories often simultaneously dealt with more than one. In those cases, the interview data are described and placed under the theme that appears to be most congruent with the participants' stories.

Table 15

Top Three Themes and Subthemes for Performance Accomplishments

Themes	Sub Themes
Skill Development	Developing skills in negotiation Developing skills in delegation Developing skills in budgeting and finance Developing skills in communication Developing political savvy Enhancing leadership skills generally
Decision Making	No Subthemes
Goal Setting/Strategies for Change	No Subthemes

Several other themes or subthemes appeared in the participants' comments concerning how they defined leadership, how others viewed them as leaders, scholarly achievements, and self-motivated persistence. These themes or subthemes were not analyzed further because the responses were either not sufficiently robust, did not directly relate to the sub question, or did not coalesce across the two points in time.

Skill Development. This theme appeared the most frequently as the study participants described their development as leaders. They described, over time, how skill development became essential for their leadership development and thus, their performance accomplishments. According to Bandura (1977, 1986, 1997), self-

efficacious individuals regard ability as an acquirable skill that can be increased by gaining knowledge and perfecting competencies. They seek challenges that provide opportunities to expand their knowledge and competencies. Such people judge their capabilities and measure their success more by personal improvement than by comparison against the achievement of others. He further asserts that “conceptions of ability... exert strong effects on... performance accomplishments” (p.118).

Specifically, there were a total of 361 references to skill development; 125 from Time 1 increasing to 236 in Time 2. There were 18 participants from Time 1 and 19 participants from Time 2 that commented about skill development. Some participants made multiple references to this theme. Specifically, all but 4 of the participants from Time 2 made more than 10 comments ranging from 11 up to as many as 36. One participant made no comments regarding skill development from her ELAM experience in Time 1, but made 23 references to this theme in Time 2. This was a prime example of how the participants viewed the benefits of ELAM manifested over time. Deeper analysis within the developing skills theme showed six consistent subthemes. These subthemes were descriptions of skill development as relates to negotiation, delegation, budgeting and finance, communication, political savvy and enhancing leadership skills in general.

Developing negotiation skills sub-theme 1. In the context of developing negotiation skills, participants from all classes gave voice to how ELAM had raised their level of awareness about the importance of negotiation and prepared them for negotiating a number of things including positions, salaries, labs, and personnel. Six participants from Time 1 and 9 from Time 2 conveyed information about their negotiation skills 49

times, 10 from Time 1 and 39 from Time 2. Five participants spoke about negotiation at both points in time. Collectively, they defined negotiation as a process in which two or more interdependent individuals discuss and attempt to come to an agreement about their preferences. The participants described scenarios and explained instances that illustrated their ability to successfully employ their negotiation skills; albeit, after laboring to understand its principles and techniques.

One participant explained her awareness of the importance of learning the skill of negotiation, what she did to better understand it and how, through negotiation, she was able to circumvent some of the previous problems she encountered.

...the important piece was the identification that negotiation is an important skill and that it is a skill that can be learned, and I read *Getting the Yes* and *Hardball For Women*, and I had had, I think I had the usual trouble with negotiations, you know, that I didn't really want to do it and it was directly addressing conflict and how much do I ask for and all of that. And it, ELAM put me on a different path with this is a normal part of life and you negotiate everything... I went and negotiated for a number of things that basically cut the crap and ended up having a really good experience. I know that without that preparation from ... I would have been fighting a lot of recreation of what happened last year. (Dr. Abbey 99, Time 2)

She also characterized becoming aware of negotiation as a wakeup call and shared the importance of learning more about it.

So, it was that initial awareness. I got very interested in it and got another set of books, *Shattered Negotiation* and started reading a lot more about it and then when I did a visiting professorship in... I stayed with a women [*sic*] who actually taught negotiation skills for women... But, it wasn't until ELAM where it was presented as a field of study, or a field of endeavor with some theory behind it that could be learned. So, I guess it was more of a wake up for that area of interest for me. (Dr. Abbey 99, Time 2)

A second participant described how, after learning the skill, she successfully negotiated the terms and conditions of her new employment agreement.

I put together this list of what it was going to take to get me back in the dean's office and one of the things on the list was a promotion, one of the things on the list was a new title, one of the things on the list was salary parody [*sic*] with the guy that was doing a similar job at a lot more money, and an assistant, a full time assistant... HE had to do it. And he said gee, you drive a hard bargain and I said you know, I have been negotiating your ... contracts for the last two years, you better know that I am pretty good at it (laughs). So anyway, I got all that stuff... (Dr. Earlene 96, Time 2)

On learning how to negotiate, a third participant expressed how vital it was to her job and career decisions. Over time, she created a system of negotiation.

It certainly helped me, was integral, my network and learning how to negotiate was integral in managing that. In managing to assist that dean to create a new position and be the candidate for the position... I think the training in conflict resolution helped me in negotiating too... I was I [*sic*] negotiating off and on probably from the time from ELAM until a year and a half ago because every time I was in a position a new position opened or we created that and I was negotiating to be that. Interviewing to for that job, because I had to interview for the vice dean academic affairs one and negotiate the terms of the agreement and I think all of the being able to talk to those people in certain sessions and books that were recommended. I mean I went in with a system. (Dr. Janet 99, Time 2)

She provided further insight on what could happen if you lacked training in negotiation and, in this particular instance, what she did to prepare for what she considered success in the future.

I did one negotiation the first time when I became the director of gender and equity before ELAM without knowing Myers Briggs and without working on it and it was so, not only did I not get what I wanted it was so unpleasant and it went on for so long that how we remained in good terms is mostly because I understand how men work... So, then I got into a whole things with my chair of the department at the time, it was not good, it was not a good scene. We got past it and that was fine. The next time I said I was going to study this because something is wrong here, this doesn't work. And I don't remember what I did exactly, but I studied how you negotiate with, he's and [*sic*] INTP, how you negotiate with and [*sic*] introvert when you are as extroverted as I am, which I am very... I realized, reading about it, that I had done all of the things that would annoy him without knowing it... he felt attacked... But when I modified it he was very, very happy. Very, very, everything was very pleasant. (Dr. Janet 99, Time 2)

Analysis of negotiation skills over time. Across interviews and across times, this finding also showed ambivalence in some participants' confidence in their negotiation ability although their skills seemed to develop over time. For example, in Time 1, some comments expressed confidence, i.e. Dr. Abbey 99 who said, "...I went and negotiated for a number of things that basically cut the crap...I know that without preparation, I would have been fighting a lot..." However, there were also statements that appeared to project apprehension and uncertainty. For instance, even as they negotiated issues of importance, Dr. Evelyn 97 and Dr. Earlene 96 respectively referred to negotiation, particularly in the context of conflict resolution, as "my Achilles heel," "my weakest areas" and "I've been shy about it." By Time 2, the same participants' comments seemed to exude more confidence and resolve as they became more experienced. For example, Dr. Earlene 96 appeared to have evolved into a self-assured, outspoken individual who "negotiates everything;" and who advanced from avoiding her chair to a commanding position of asking for and getting what she wanted. Also, Dr. Evelyn 97 expressed feelings of empowerment, willingness to "take more risks", and the ability to resolve conflicts with "less fear and trepidation". These examples represent the common views relating to the development of negotiation skills as disclosed by the participants across interviews and points in time. The women's portrayal of confidence in their ability to use negotiation strategies to successfully overcome limitations or constraints was defined as negotiation-efficacy by Hubbard and Mannell (2001) and (Miles & Maurer, 2012); a position that aligns with Bandura's (1997) self-efficacy theory.

In summary, the women in this study spoke about the importance of learning negotiation skills, developing a system for negotiation, and honing various negotiation

techniques to help them achieve favorable results on the job and when executing other career decisions. There were lessons learned about what not to do when negotiating as well. These examples reveal how negotiation as a skill, over time, embodied the self-efficacy source of performance accomplishments.

Developing delegation skills sub-theme 2. Delegation was revealed as another important skill to develop within the self-efficacy source of performance accomplishments. Eight of the 19 participants alluded to this skill 24 times, 12 references each in Time 1 and Time 2. There were five participants from each interview time — total of 10 with Dr. Gloria 99 and Dr. Janet 99 referencing this skill several times across both points in time. Each of the classes was represented Time 1 and only the 1999 class in Time 2.

The women characterized delegation as a complex process in professional practice that involved the key elements of responsibility and trust as well as relinquishing some control. Participants talked about learning to delegate, trusting other people to do the job, assigning tasks, resolving conflicts and problem-solving through delegation, and although difficult, yielding to relinquishing control.

One participant spoke of her limited abilities in delegating before ELAM, what she thought were the important aspects of delegation, and over time, getting to a place of accepting the necessity of mastering and utilizing this skill.

I have definitely learned to delegate in a way now that I did not have mastered six years ago. So, delegation, and making sure that you choose people for leadership positions around you, I feel like I've got pretty skilled at finding good people to work for me. And that being a skill in and of itself that I definitely did not have mastered six years ago. So, delegation, but staying on top of it and using my position to, when necessary, move change forward in a way that nobody else can do... (Dr. Teresa 99, Time 2)

A second participant shared her views on delegation with regards to allowing her staff the autonomy to complete tasks and conveyed the importance of communication as part of the process.

And then once I've communicated and set up a task for someone, sort of delegated that, I need to allow them to complete it and not check on them too often. Some of that comes from my own internal need to be sure of what's going on and to make sure that I know what's going on if somebody asked me from the outside, but I imagine insiders might view that as my not trusting them. So I've tried to delegate more and set up through adequate communication time lines so that I understand and they understand when the information needs to be sent back to me. (Dr. Donna 96, Time 1)

As a researcher, a third participant spoke about overcoming her controlling nature in her laboratory and acknowledged that although she learned to delegate in the lab, she needed to do better at the institutional level to help with problem-solving and conflict resolution.

I'm a researcher which is different also than some of the other people, but researchers tend to be overall very controlling--that's a given...I've been pretty good at delegating within my laboratory, but when it comes to the institutional level of problems that have come to me, I have not delegated and called on people. So I've learned to delegate at a very low level, and I'm learning to do that at a higher level, it's one of the ways I'm learning to resolve some of these conflicts. (Dr. Earlene 96, Time 1)

With regards to assignments, deadlines, and accountability, a fourth participant described how she dealt with delegation and the positive changes it created.

...able to hold administrative meetings weekly and talk to people as a group in office – the five of us. What is going on, what has to be prioritized, who is going to do what – again that is the delegation thing. Giving it off to some people and saying, “Okay, you are going to do it, be responsible for it.” And give them a deadline to come back to me. I think that has been a very positive that I am constantly aware of more and have changed. (Dr. Gloria 96, Time 1)

On the issue of relinquishing control in relation to her delegation skills, a fifth participant shared how she progressed from a point of struggling with the issues of doing

everything herself to involving other people in a small project to ultimately relinquishing some control on a major project. The following excerpts from her interview transcript show growth in her delegation skills over time.

I had gotten to the point with ELAM where I was really struggling with if I have to do everything myself. I didn't even realize that is how I was doing things. ELAM made me realize I'm trying to do everything myself, I have to give some of this up to someone else. You realize that when you are at the middle or the top ... if you try to do it all, it just doesn't get done.

I did do a small project in the summer that had to do with leadership where I did delegate it to – basically I learned to involved other people and let them take some ownership too. You have to relinquish some control, you have to take some risks, but at least you don't have to do it all yourself.

I do collaborate with people, but I'm more or less a control freak, so I really did relinquish control of the project. And, I did the project with my advisory committee... and I really had the people on the committee do the project. I collated it, and ended up writing most of the report, but the work was really done by all the people on the committee, who went back to their own departments to do the work – to gather information, which I never would have done before. I don't know why I wouldn't have done it before, but I never would have thought of it really, and now some of that worked and some people didn't do it – that is the risk you take when you delegate work. But, I think I did delegate, and I've learned to delegate much more since and because of ELAM and that way people really took ownership of the project because it was everybody's project instead of me forcing them to do the project... (Dr. Janet 99, Time 1)

A sixth participant also spoke in terms of “doing everything myself” and, recognizing her authority, decided to relinquish some control, and exercise her delegation skills. She expressed that over time, she had learned to allow select people further autonomy by delegating more.

... if I am the top person..., the very first thing that has to happen is that I need to you know, accept that and take care of it. In another words there are certain things that I need in order to be a top person effectively. And I need to then delegate and request action from other people where I was previously more likely to do everything myself... And now you know, I try not to micro manage, in fact I try to delegate as much as I can to people who are competent to do it you know?... And have them prove themselves and do as much as they can. But I have learned

how to back out and let them report to me, rather than doing, or having my hands in much of what they do. (Dr. Freda 99, Time 2)

Analysis of delegation skills over time. As with Dr. Janet 99, Dr. Gloria 99 represented growth in delegation skills across interviews and times. In Time 1, Dr. Gloria 99 spoke about delegation in terms of prioritizing tasks and assignments, talking about whose going to do what, giving it to someone to do, making them responsible for it, giving them a deadline, and holding them accountable for the results. The steps followed were in keeping with the literature on how to successfully delegate (Bagilhole & White, 2008; Still, 1992). In Time 2, Dr. Gloria 99 essentially reflected on her delegation skills in terms of how she had advanced to “delegating more”, and acknowledged that when you try to do everything yourself, “it [task] never gets done” or “it gets shoved to the bottom of the list more.”

In summary, the participants in this study talked about their leadership development in terms of delegation and what that meant in assigning tasks and meeting deadlines. They shared their feelings about trust, responsibility, and accountability as relates to accomplishing goals, resolving conflicts, and problem-solving. A major theme was the difficulty these women experienced in relinquishing control, while also feeling the anxiety associated with doing too many things themselves and ultimately asking for help. The excerpts under this sub theme highlighted how developing delegation skills connect to leadership development and the self-efficacy source of performance accomplishments.

Developing skills in budgeting and finance sub-theme 3. Because the budget expresses how resources will be allocated and what measures will be used to evaluate progress, developing budgeting and finance skills was another prominent sub theme that

surfaced as a core skill connected to leadership development and performance accomplishments for current and aspiring leaders in academic medicine. Fifteen of the 19 participants from all classes, 8 from Time 1 and 7 from Time 2, made 30 references to this theme. Five of the participants offered statements in both times (Dr. Brenda 97, Dr. Gail 97, Dr. Harriet 96, Dr. Samantha 99, and Dr. Teresa 99). They talked about the effectiveness of fiscal knowledge and skills when linked to overall institutional strategy and how it gives all stakeholders a clearer understanding of strategic goals. They saw this understanding as leading to greater support for goals, better coordination of tactics, and, ultimately, to stronger institutional performance which is critical for the successful leader. Participants specifically articulated their thoughts on the importance of understanding the relationship between finances and institutions, how to read spread sheets, the benefits of exposure to budgeting and finance, the politics involved, and the opportunities it created.

One participant said she saw the benefits of her knowledge of finances manifested when her chair began sharing financial information about the department with her. She further stated that because of her finance understanding, she knew how to ask and answer fiscal questions during interviews. Having finance knowledge also enabled her to make career decisions by being able to discern the fiscal capacity of a potential employer.

Understanding the finances that drive an academic institution... actually being able to see where the money comes from that drives an academic health center and with that my department chairman sends me quite a bit of financial information for the department, just for my own edification, ... he knows that I like to see the numbers. It also became very useful on some job interviews that I have gone on...the ability to ask questions about the financial underpinnings of a department, how funds are allocated from the university to the division and then to the department has helped me see whether the individual trying to hire me would have the financial flexibility to give me things that I need in the recruitment and then later on. (Dr. Brenda 97, Time 1)

Gaining a better understanding of finance was important to a second participant's development of this ability. She explained how her grasp of finances had matured over time such that she was comfortable discussing various aspects of it and was optimistic about its benefits going forward.

I'm better served by having gone through some of the finance courses... I understand finance better... before I don't think I could have even understood what he was talking about...but now I can go through the sheets and say this bad debt figure is incorrect, I have data to support that. What is this figure and where did you get it...so we're having more conversations which I think in the long run will be helpful...but I think we're actually doing very well... (Dr. Donna 96, Time 1)

Referencing finance, a third participant said she understood more of what finance was about. She talked about understanding the motivating forces behind budgeting and finance as well as the politics involved in accessing resources and getting things done.

...one of the fascinating things...was to look at the interplay between tuition and revenues and costs and all of the things and to see that if you cut back all of your faculty you can make money on a medical school, but obviously, there's nobody left to teach but it was just quite interesting to realize the relationship between the availability of resources and the ability to get something done, which seems very simple, but when you are reading budget sheets sometimes it isn't so obvious. People get bogged down with one specific issue instead of looking at the whole picture. It also gave me a feeling that I have a solid base in GME. In looking at the finances because it's based on what people want residents to have...it's based on a need from people who want residents... I have been on boards before, so maybe it's more the politics honestly, the finances were as strong as I think they are now... So it's more the politics in the finances and also why anybody would want to spend it a certain way...there is always a lot of discussion of why do we need to do this? (Dr. Samantha 99, Time 2)

Analysis of budget and finance skills over time. In examining the comments across interviews and across both times, there appeared to be some initial discomfort with the execution of this skill. Dr. Teresa 99, in Time 1, when talking about the ELAM finance training, said "...it was very good...I can't say I've done a lot of that since then,

[completing ELAM] but I know how to at least approach a financial spreadsheet...It also made me acutely aware of my weakness in that area...I need more...I need constant reinforcement.” In contrast, there seemed to be a marked difference in her comments in Time 2 that were also telling in the sense that, over time, she appeared to have transformed her weakness in budgeting and finance into an incredible strength, manifested with astonishing accomplishments. She had this to say:

The financial pieces of it, you know, form the foundation. I think I’ve come a long way since then, you know, because I have a 290 million dollar budget that I’m managing at this point and I certainly had to learn a lot since then... (Time 2)

For the other participants, in the first interview (Time 1), statements seemed directed more towards acknowledging the significance of the training and actually employing the skills. In the Time 2 interviews, the comments seemed more reflective or an evaluation of the experiences they had in learning and executing the skills. For example, in her first interview, Dr. Harriet 96 remarked:

Well for me the learning highlight was all of the finance exercises and the mini-MBA, especially the hands on ones where we were given numbers and we were asked to crunch them or come with a solution to a problem involving budget. That was something...that was a brand new skill set for me, that was something I came into ELAM knowing zero about, and I knew the day [ELAM faculty member] introduced herself...and she gave that speech that said ‘If you want to know how your institution runs you must know how the money flows.’...So I did these finance exercises at ELAM, I loved it, everybody at my home institution knew I loved it too because I had to deal with all the finance people... at the end of ELAM I came to my dean and said I want to follow up everything I learned on finance...at ELAM by doing a sabbatical in the dean’s office. And he said ‘Perfect timing because all of our budgets are under reconstruction right now and there are going to be big changes over the next three years and we need people who can interface between the administration and the faculty. How about you?’ (Dr. Harriet 96, Time 1)

In her second interview (Time 2), Dr. Harriet 96 gave what seemed to be an evaluative response when she said,

“...I realized that when I was working the initial problems, that I wasn’t that bad at it... And so as I work through that kind of stuff [dean’s assignment] I realized that I was actually better at this...which I hadn’t really appreciated...” (Dr. Harriet 96, Time 2)

This example illustrates the core of what self-efficacy in financial leadership represents.

Furthermore, the participants’ demonstrated performance of these skills supports Bandura’s (1997) theoretical conception that acquirable skills can be increased by gaining knowledge and perfecting competencies; thereby, exerting strong effects on performance accomplishments.

In summary, on this sub theme, the women divulged the importance of being exposed to budgeting and finance to help them understand how the money flows and how institutions operate fiscally. They acknowledged the politics involved but recognized it as a critical skill necessary for developing institutional strategies and soliciting stakeholders’ support of strategic goals. Developing budgeting and finance skills, like delegation and negotiation, is important to leadership development and its link to the self-efficacy source of performance accomplishments.

Developing communication skills sub-theme 4. The ability to communicate effectively is a leadership cornerstone. The women perceived this skill as beneficial towards building and developing strong working relationships at all levels in their organization or institution. References were made to communication skills a combined 51 times by participants from all classes. Twenty-four references were made by 10 participants in Time 1 and 27 references by 9 participants in Time 2. Five participants referenced communication multiple times across both times (Dr. Brenda 97, Dr. Ellen 96, Dr. Evelyn 97, Dr. Harriet 96, and Dr. Irene 99); thus, presenting a robust display of this theme over time. Participants described communication as the process of effectively

transferring information from one person to another, sharing information with another party to create a common understanding, enhancing productivity, and moving relationships forward constructively. Altogether, the women in this study gave numerous accounts of their communication experiences that centered on using their voice, communicating better, communicating in writing, speaking out, and learning to say no.

One participant talked about how her communication skills had advanced to being able to talk to anyone on any level and feeling empowered about that. She revealed how she showed more transparency in discussions. She also conveyed the importance of exercising her voice and shared a brief example.

...my ability to just talk to people at all levels of the system have improved since that exercise. They are just people like me making what they think is the best decision, although they aren't making it on the same information that I have. That's helped a lot...I openly discuss things and kind of cut out a lot of the garbage that happens...in study section last week a man started talking over me in the group and I just don't put up with it anymore, I looked straight over at him and said, "Can I finish my comment please?" (Dr. Abbey 99, Time 1)

Similar comments were echoed by a second participant about speaking to power and expressed positive outcomes from completing a related ELAM assignment.

...a homework assignment from ELAM was to meet a lot of people in power. You know, so I met vice presidents for development for the whole university and I met the head of the human resources and there are people that I have no problem now going with and talking to and that's been very positive. That probably is one of the more positive things that have come out of that. (Dr. Evelyn 97, Time 1)

On the subject of skills, a third participant disclosed that she was making an effort to improve her communication skills by trying to be more effective in choosing the language she used in making staff requests. She also talked about the positive responses she received from written notes of appreciation to staff, demonstrating clear and effective written communication.

I am trying to communicate better...I did try and be straightforward and ask someone to do something, but I often try to catch them in a way so that they don't feel that I'm being unreasonable or demanding. But I think that sometimes (INAUDIBLE) "could" is better than "would you."...So I'm trying to communicate in a clearer fashion... But on these little notes, thank you notes, yeah. I can't tell you the number of people who have said "Oh thank you, I just appreciated that so much." (Dr. Donna 96, Time 1)

A fourth participant offered her position on women speaking out and asking for what they wanted as well as taking a stand and giving voice to issues or situations that could affect the status of women in the future. She presented a powerful example of effective communication using influence and negotiation to achieve positive results.

I feel more able to speak about issues, I feel like I'm more able to use my voice. I think ELAM helps people to realize you are going to have to prepare yourself for positions that you might want and you are going to have to ask for them, and if you ask and you don't get them you might want to say what credential do I need or what kind of, what should I do if in the future I want to do something like this... one of the things that I thought came from ELAM was when I was asked to be the women's liaison officer after they had a search committee and the dean said the previous person received a stipend as part of her salary but you don't need that and can we just roll that into the budget. And I said it seems to be a bad precedent because the next person who does this position is going to need a stipend and if you can't offer them a stipend I'm going to be, I mean I may not do this a long time... it was probably an ELAM learning that it's not wise to say sure, I love women's issues and I'll do that for free. It's not a good precedent; there should be some value. I think that comes from ELAM and some from me, but it seems to be the wrong message to move forward with. (Dr. Samantha 99, Time 2)

Confidence in her communication skills was also expressed by a fifth participant and her ability to convey troublesome messages in a way that promoted civility rather than callousness.

I think my interpersonal skills are very strong. I think my ability to deliver difficult messages in a way that is constructive is a definite strength that I think I see in myself that I don't see in a lot of my colleagues and I think that's really important because, you know, things are hard and we often have these difficult messages that we have to deliver, but we have to do it in a way that doesn't leave a trail of destruction behind them and I seem to be really good at that. (Dr. Teresa 99, Time 2)

A similar style was shared by a sixth participant on communicating troublesome messages to her chairs. She offered some suggestions on how to communicate hard messages.

Well, speaking to other chairs about their inability to mount an effective clinical program and experiences the patients have where they have no access or they have bad experiences. Having a way of saying that and framing it in things that would matter to them is more effective than just saying you do a terrible job, you don't ever see patients, you don't do this, you don't do that, that kind of experience in framing so that the outcome is the outcome you want... Well, instead of saying you did this and that was bad (laughs), saying you know, one of my goals is that you would grow in whatever, in your role as, and you know, I have to make the observation that at X point this is what happened. This is what I would have expected, and there's a gap there and I need for us to address that gap and figure out what we are going to do so that we can consistently basically produce what is expected rather than just, you know, saying it in a way that the person feels that they were wrong and are bad and that's the end of the discussion. (Dr. Ellen 96, Time 2)

Analysis of communication skills over time. Across interviews and both times, participants' comments suggested that communication skills showed continuous improvement and expansion of skills as situations and or opportunities occurred. In Time 1, for example, after ELAM, Dr. Abbey 99 was able to "talk to people at all levels," "openly discuss things;" she became more relational; and was more assertive and authoritative when she spoke. In Time 2, there was a continuation of skill development and insight gained in terms of seeing herself as a "valuable commodity almost in a marketable sense." For Dr. Ellen 96, in Time 1, she essentially said the same thing, "...your work has to speak for itself but then you have to speak for yourself too." Thus, when she became a journal editor, in one of her weekly meetings, she brought a copy with her to show her dean "the accomplishments that I've achieved." In Time 2, she continued the mantra of voice including phrases like, "I think I felt much more free to say..." and went on to state, "That freedom to say...I think allows a different

relationship to emerge... I think one of the ways is an ability to just state the truth as I see it in a kind enough way that other people can hear it.”

In summary, the women shared communication thoughts and experiences that dealt with speaking out, taking a stand, finding their voice, communicating difficult feedback, moving relationships forward, saying no, and the effectiveness of written expressions. Their comments illustrated communication as a fundamental skill that is essential for leadership success and also connect to the self-efficacy source of performance accomplishments. For some, the ELAM experience appears to have solidified the confidence they already perceived, while the experience enhanced the communication confidence of others.

Developing political savvy sub-theme 5. There were a total of 53 references developing political savvy by 15 of the 19 participants from all classes and combining both times; there were 8 in Time 1 by 5 participants and 45 in Time 2 by 14 participants. Four participants (Dr. Donna 96, Dr. Freda 99, Dr. Harriet 96, and Dr. Irene 99) spoke about this skill in both Time 1 and Time 2, showing a progression of the skill over time. Overall, the women thought that being politically savvy does not mean that someone has to lose in order for another to win nor is it about being false and inauthentic. Instead, they felt political savvy involved the sincere use of skills, behaviors and qualities in order to be more effective. To that end, the women in this study shared their experiences and how they handled situations that challenged their ability to influence others to act in ways that enhanced their personal and organizational objectives. Specifically, they spoke about building and maintaining external relationships, the behaviors they engaged, the significance of mentoring, and understanding what developing political skills entailed.

One participant stated that she learned unanticipated things about politics that were reinforced at ELAM when one of the presidents lectured about interacting with politicians. She elaborated on the knowledge she gained about the political skill it takes to successfully negotiate mutually beneficial goals with various constituents.

I learned some things I didn't expect to learn, for example about dealing with politicians, it wouldn't have crossed my mind that would be a useful thing, yet when we had the President of...College, when she came to talk about dealing with politicians, I treasured every word of that, and I remembered it to because I have to deal with politicians, the communist peoples party politicians, the health ministers in different countries. All of these people are all politicians and they all need to be sucked up to in a particular way, and she didn't make any bones about telling you that you have to do that, and put your program forward in a way that makes them look good and makes everyone come out a winner. It was great information. (Dr. Freda 99, Time 1)

When talking about her political skills, a second participant attributed her political survival to being a good observer, being a good listener and being good at engaging others while maintaining her integrity. She also talked about understanding the politics of getting things done and emphasized the importance of building relationships.

...I think I had some political astuteness before, but both because I think I had relatively good observational skills, because I've become a better listener, I think I've gotten to be a pretty good political survivor, I try to do that without compromising my own sense of integrity, which is not always easy to do here, and is probably not easy to do anywhere... I think I'm beginning to have a much deeper understanding of where we are based on the influences that sometimes jump several administrative levels, you know you just you know, absolutely (Inaudible) about why somebody might have gotten accepted to medical school or have gotten an interview for faculty appointment or, you know, as you scratch the surface you began to find the relationships, relationships in ...are very important... You can sometimes go to people with fairly ordinary, extra ordinary requests that might not otherwise be considered in the tiniest, and you know that it's a fair and legitimate request, but it might be a real exception to the policy, but if you have that relationship, ... you have a really good chance of getting it approved even though it's a super extra ordinary request. (Dr. Mary 96, Time 2)

A third participant divulged how her political skills had advanced her credibility, and how, over time, she positioned herself within the institution to have a strategic

advantage that allowed her to ask for and get some of what she wanted. She also shared how ELAM reinforced the importance of mentoring in developing her skills.

I accepted that position because I recognized it would be one of the fastest ways to understand who did what, research-wise, within the institution. I was then asked to chair that committee which I accepted because I recognized it would bring me closer to the dean for research within the college of medicine... It gives me a credibility and it gives me access. That means he respects me and I can go make requests of him so one thing ...I learned from a mentor years ago is favors are an actual currency like money in an academic institution and also your credibility is everything... understanding that favors were like chips to be called in carefully to be granted as appropriate. So through performing tasks that he's requested of me and having done a good job, taking control of some things and making improvements . . . he knows who I am. I know he values me. He's told my chair he values me. It means I can now go to him for some things and that's been critical because then you can make things happen. (Dr. Brenda 97, Time 2)

A fourth participant said she exercised her political skills when she was chairing “something” by gaining support from people before the meeting to influence the outcome in the meeting. She explained her process for doing that.

I have found that when I'm chairing something, and sometimes I do want to be the chair of the thing because I know how I want it to go and I want to manipulate those circumstances somewhat, I have found that doing the work between the meetings is what really drives what happens in the meetings. So if you tee it up, sometimes you have to call somebody and talk to them ahead of time so that they'll understand what you are trying to suggest and they will be supportive, and other times just creating a report or the first draft of something, that's probably one of the most helpful things you can do is create the first draft of something because it's very hard to write the first draft in a group, but you can edit in a group. (Dr. Earlene 96, Time 2)

Analysis of political skills over time. An analysis of this finding across interviews and both times showed consistency in the use of political skills and development over time. For instance, in a first interview, one participant explained the basis for the internal and external engagement of her political skills:

...I also have to be concerned about ...the perception of community physicians of us, of the region, of the hospital, of other organizations, there's a lot of community work and PR work that I do...And that's one thing that I've learned

from ELAM in terms of personnel management, that the best supervisors were those people that have good relationships with other parts of the organization and people outside of the organization... (Dr. Donna 96, Time 1)

In her second interview, this participant appeared to execute her acute understanding of this skill with steadfast confidence and self-assurance even when criticized. This is what she said to her board member:

...I'm very used to being very visibly outspoken and visibly in charge, but I had to really sit back and be restrained and in fact I was criticized by ... my board president actually who thought that I was sometimes too accommodating, and a you know, listened too much and didn't kind of seize the reigns, and I said, Ed, your point is well taken, that would be what I would normally do, but I didn't think that would work in this instance and I've given myself a very defined timeframe with how to act the first year, how to act in the first three years and I said I'll be where I want to be five years from now and that's where the board will be acting as the board should be and I will be acting as I should be, but it's not going to happen before five years from now... (Dr. Donna 96, Time 2)

In building political skills over time, another participant, in her first interview commented,

I learned some things I didn't expect to learn, for example about dealing with politicians; it wouldn't have crossed my mind that it would be a useful thing. (Dr. Freda 99, Time 1)

In her second interview, her political savvy seemed elevated when she said:

...it really allowed me to look at the dynamic between department chairmen, the dean, the presidents of a university...I realized the amount of politics that are involved...And so now I go direct to the top...I don't have to go knocking on doors to get in with political people I need to see... (Dr. Freda 99, Time 2)

In summary, the excerpts provided here show the capacity of the women in this study to gain access to inside information and achieve the social capital that so often limits their movement across institutions and organizations. For these women, developing their political skills enabled them to use their influence to get the resources they and their team needed to function effectively, to develop high quality relationships

and networks and, through mentoring and other experiences, to understand the scope of what it means to become politically savvy. Mastering the skill of being politically savvy thus, appears essential to these women for leadership development and links to the self-efficacy source of performance accomplishments.

Enhancing leadership skills generally sub-theme 6. The final subtheme that was presented under the main theme of skill development relating to performance accomplishments was enhancing leadership skills generally. All of the women provided thoughts and experiences on this subtheme with 154 references. The 19 women shared 54 references in Time 1 and 100 references in Time 2, a considerable increase in perceived interest or relevance at 5 years post-ELAM. The women referred to leadership development as any activity that enhances the quality of leadership within an individual or organization. Already by Time 1 after their ELAM experience, the study participants spoke about broadening their skills in team building, being open to other's opinions, and understanding how to lead.

One participant shared that she been promoted to vice president and how, since ELAM, she had broadened her perspective on administration, skill enhancement, taking more risks,

I have just been made a vice-president so I'm trying to cope with all that... first thing was it really helped me to see myself in a leadership role and that was very helpful for me actually wanting to move forward and actively pursuing a step up into an administrative position... the Myers-Briggs analysis was extremely helpful in helping me see how . . . what my style is and how it differs from those of other people. I think it makes it a little bit easier to cope with people whose styles are very different than yours. Yeah, so I really, really got a lot out of it... I think it just focused my attention more on leadership and administrative issues. I had been a department chairman for a number of years and had that pretty much under control and it really helped me king of go the next step in terms of thinking about the bigger picture of administration. (Dr. Carolyn 97, Time 1)

A second participant said that she learned from ELAM that people have various leadership styles and the importance of building her own skills.

I learned that leaders can be very, very different types of styles. Sometimes before I came to ELAM I would look at somebody who was designated as a leader and say you know, I can't be like that, and I think ELAM taught me I don't have to be like that. I can be like me in some ways and take the whatever skills I have that...and that goes into how it affected me...take the skills that I have and develop them and grow with them and work on the strengths that I have which may be different from other people's strengths. (Dr. Earlene 96, Time 1)

A third participant spoke about the ongoing process of performance improvement and taking advantage of the opportunity because of ELAM to take introspection of her leadership style and what she needed to do to improve it.

I'm continually improving and I regularly make mistakes, so I have continued to input that I need to improve. But, yes, overall I think I do a good job... I also used it as an opportunity to kind of develop my own leadership such as during that year, it was independent of ELAM but the fact that I was in the program is probably what stimulated me to do it, to follow it . . . kind of my own learning plan that I developed... having the time to think about things and some of the emphasis on personal style and presentation and what I did with that outside of scheduled ELAM time were beneficial to me... I think I'm getting better at it as I'm becoming more educated. I think I tend to assume that most people are like me, and I think it's not actually true... It's my view of administration that's changed, and my role in administration, and seeing where the limitations are and where I can be effective based on my personality type. (Dr. Frances 97, Time 1)

Because of what she learned at ELAM, a fourth participant talked about being more focused on her role as a leader and being willing to take more risks.

ELAM helped me focus I think on the specific traits and skills that a leader needs to have, and I think a certain amount of leadership characteristics are intuitive... I think it taught me that I need to be willing to think very broadly and take more risks. I think I always was kind of a risk taker, but I heard a lot of messages about taking even more risks than I would have chosen for myself. There is some safety in being surrounded by other incredibly capable women who are also taking risks, you realize that none of us our flying apart into a million pieces. We're taking risks and we're making it. (Dr. Harriet 96, Time 1)

A fifth participant spoke about the changes she made as a leader as well as the importance of team building and its benefits. She said that because of ELAM her leadership skills had been enhanced.

I think probably the biggest change in my sense of leadership from the ELAM notion ... or as a result of participating in ELAM was that I got a bigger appreciation for how important that team building aspect is. I think if you looked back at what I said about what is leadership ... because it seems to me that might have been one of the very questions that we were asked on our application, I'm sure I said something about providing vision and guiding the team ... I'm sure that I may be used some of the very same words I'm using ... that I just used now. But I think I got a bigger or stronger appreciation for how important it really is to serve as a repository and as a catalyst, both functions, for getting people who are on the team to maximize their potential ... if that makes any sense... I think as a leader then actually you benefit from that too, you can share in the glory so to speak. But just a better sense of how important that team building function is as opposed to the leader being the idea provider, the one with the very best vision perhaps... what I realize more as a result of ELAM is that I really am a very good team builder, and in that sense I think my ability to be a leader and to see myself in leadership positions was very much enhanced as a result of ELAM. (Dr. Maggie 96, Time 1)

A sixth participant shared the leadership changes she had undergone and her willingness to be more open to other people's thoughts and ideas.

So, the most fundamental change is the transition from the passion of being bright and thinking that you know the answer, and therefore you can lead because you really are smart and you know what to do, to realizing that you know, solutions and pathways to achieve them are evolutionary processes that usually end up tangential to what you think, but not reflecting what you think ought to happen with complete convergence, and I think that's the biggest change that I've had, perhaps a more open approach to considering other people's venues... I still think I'm pretty instinctual. I have more filters, or I guess more, I guess filters is as good of word as any, but the filters that I just mentioned of listening to an array of opinions and things like that, that has been overlaid on my instinctual impulses... (Dr. Donna 96, Time 2)

In a Time 2 interview, a seventh participant said that over time, she had come to better understand how to lead. She also talked about implementing the changes she made into new programs.

...on a really crap day, I honestly can say that I have learned more, grown more, understood more about how to lead and about who I am as a leader in these last two and a half years than at any other point in my professional life, ever... I truly believe, and this came up a little bit in ELAM, more since, that you absolutely can and should consider what you want to redo about yourself when you switch positions in leadership, that's up there... There were things I didn't like about my leadership style around the corner when I was running another large program and even though I am still on the same university campus these folks didn't know me the same way, so I got a chance to walk in and decide what I wanted to get rid of and try and focus on that. Now, that said, I didn't do such a great job at getting rid of the really worst parts until the last six months and I think that, what that's about is just increasing the observation about what people do when I do certain things. (Dr. Irene 99, Time 2)

Analysis of leadership skills over time. An across-interview and across-time examination indicated growth in the participants' leadership skills over time. For example, in Time 1, Dr. Samantha 99's comments about being a leader were somewhat vague. She said her goal was to simply be a leader and to "use whatever position I'm in and actually be a leader..." In Time 2, she was more specific about the leadership skill she developed or was improving:

...I think I learned to try to listen more...I think listening is very helpful. There were sometimes messages about different ways that I could have handled something that I didn't hear because I was too busy doing. I think I'm a better listener than I used to be... (Dr. Samantha 99)

Another example of leadership development over time was Dr. Teresa 99. In her first interview (Time 1), she considered herself "somewhat successful" and said if she got the faculty vote, "I'll feel like I've really been successful employing a lot of the tools I learned at ELAM to help me with this large project..." In her second interview (Time 2), she seemed astonished at how her career had progressed when she made this statement:

I wouldn't have even accepted that position in student affairs I don't think, because the only reason that I accept that position was because I thought this will broaden my base of knowledge of administration of medical schools and may enable me to have options moving forward. To be honest with you, well I never

thought that I would be dean of a ... school. I don't know if you, if you understand, that you know that I'm a (Time 2)

In summary, the women in this study shared a multiplicity of thoughts, feelings and actions they took in areas of their leadership style that needed strengthening or changing. They talked about various topics including changing how they lead, being more open to others' thoughts, specific learning from ELAM, the benefits of team building, risk taking, and performance improvement. The analysis showed evidence of growth in leadership skills over time. (See Appendix P for Self-Perceptions of Participants as Leaders over Time.) Leadership development connects to the self-efficacy source of performance accomplishments.

Decision-making. The second theme related to the sub question of performance accomplishments as a source of self-efficacy was decision-making. This theme, which is a vital performance accomplishment, yielded 62 references from 17 of the 19 participants, 7 references at Time 1 (none from the 1999 class) and 55 at Time 2 (from all classes). Four participants responded at Time 1 and 15 at Time 2. Two participants mentioned this theme in both (Dr. Brenda 97 and Dr. Donna 96), showing some development over time. The women defined decision-making as a process that involved the collection and analysis of information which results in a course of action among several alternatives. Their comments suggested that decision-making was critical to their career planning and performance. They talked about how they processed information to make decisions that impacted current and future career decisions, as well decisions that affected the organization. This theme focused more on career decision-making as that was the thrust of the interviews. In particular, the women mentioned reflection as a part of the process, feeling ambivalent, clarifying information, making tough decisions, and

other factors.

With regard to making decisions about her career, one participant talked about the process she went through to decide whether she wanted to advance her career into administration full-time. She added that reflection was a key component in making her decision.

I spent the year at ELAM really trying to make the decision whether I was really ready to do administration full-time... Up until that time, I not only ran a department, but I had a very active laboratory and very active research program of graduate students and so on. And so it really took me the year of you know, reflection about whether I was ready to make that kind of a change into a purely leadership position and so that was very helpful and also I think it gave me a lot of tools to help kind of navigate a serious . . . a more serious leadership role than I'd had previously... when we were at ELAM and then at AAMC, really did help get me out of my normal day-to-day rat-race type of environment and have an opportunity to really reflect on where I was going and what I was doing. So that part of it was actually very important... the direction was thinking about leadership as a profession, what it meant you know, how to do it. (Dr. Carolyn 97, Time 2)

A second participant said that ELAM helped clarify her understanding of what necessitated being an administrator which ultimately led to her decision not to pursue those types of positions.

The second aspect was that it really clarified certain positions that I had previously thought about and now knew that I did not want to do, which included . . . being, you know, associate dean for academic affairs or dean students, all of those things have gone through my mind and I think ELAM made it far clearer that some of those jobs were mischaracterized in my mind as to what they fully entailed. (Dr. Donna 96, Time 2)

A third participant also looked at what administrative leadership entailed, and like the above participant, the information she received from ELAM helped her decide whether to forego the career direction of dean or chairman.

I think first off I learned that I did not want to be a dean or a chairman of a university department... I knew that I wanted to do something substantial with my career, but I was not sure whether I wanted to do it in, within a structure that was

already set, or whether I wanted to create something altogether new that hadn't been done before... it gave me a really good close hard look at what is involved in being a dean to being a department chairman and nurturing that along. (Dr. Freda 99, Time 2)

In addition to her experiences, a fourth participant shared how ELAM had also enhanced her ability to make tough decisions.

ELAM was extremely important in terms ...of exposing me to the concept of leadership in higher education beyond being a dean... The difficult decisions are the difficult decisions. There is nothing that makes it any easier. I think I'm doing better now than I did before because of mistakes that I've made and learning from those mistakes, but it doesn't get any easier... it is something that I think I am better at for having worked for... (Dr. Frances 97, Time 2)

A fifth participant stated her ambivalence, since ELAM, about her career as to whether she should stay local or pursue national interests. She did some reflecting on what her next steps should be.

I think probably the way I had thought of my involvement in things beforehand had me involved in national organizations but my focus in work had been the subspecialty organizations in internal medicine program directors... it refocused my organizational interests... I think, interestingly enough, it also, in looking at career development has made me sit back and think I am actually going through something right now where I am saying, do I really want to look at a different job and am I looking at it only because the sort of Gestalt is that you should be moving on? (Dr. Gloria 99, Time 2)

A sixth participant talked about the factors that determined whether she should pursue other job opportunities, her uncertainty about career interests, and the basis for her decision-making.

...it has you know, that and getting deeper into middle age I guess (Laughs). Both have been significant factors in trying to decide how aggressive, how ambitious, how avidly you as an individual senior faculty member choose to pursue or not pursue other career opportunities, and I have looked from time to time at other at various episodes that fit with my personal life, timing, like kids graduating and stuff like that... I've looked at other job opportunities both as department head in radiology and at deanships and I'm coming more and more to think that I don't want to assume that type of position... There is a certain amount of necessity that is inherent in my decision-making. I tend to be very practical,

and I don't have regrets... (Dr. Mary 96, Time 2)

Analysis of decision-making skills over time. An analysis across interviews and across times revealed two examples of decision-making over time. Regarding career decisions, in Time 1, based on her career goal of being a leader in science, Dr. Brenda 97 decided to forego all activities unrelated to that goal:

“...if it doesn't relate to my science, my lab work or my grants, I'm not getting involved with it anymore...I decided the ability to be seen, talk about my work was more important ...” (Dr. Brenda 97, Time 1)

In Time 2, she appeared to have no ambivalence about her previous career goal of being a leader in science and the decisions she made contiguous to it:

... it helped me see that I did not want to be an associate dean for medical student affairs or even faculty affairs...because I did not see [those positions] as positions of power in a college of medicine...recently, I was approached to make that move to an associate dean position for faculty affairs here and I was quite comfortable in turning it down... (Dr. Brenda, Time 2)

The second example was Dr. Donna 96 who, in Time 1, had similar concerns about how she should spend her time and what to do with her skills. She appeared to be torn between her desire to continue working with her patients and utilizing her skills to help in administration.

...I cannot keep doing what I'm doing...there are more people to do that [see patients] than there are to do some of these other administrative planning, research activities that I do... (Dr. Donna 96, Time 1)

In Time 2, Dr. Donna 96 appeared to be no longer of two minds about what she should do regarding decision-making:

...it really clarified certain positions that I had previously thought about and now knew that I did not want to do, which included being ... associate dean for academic affairs or dean students, all those things have gone through my and I think ELAM made it far clearer... (Dr. Donna 96, Time 2)

In summary, the participants in this study talked about various aspects of decision

making, especially relative to their current positions and other career opportunities. They expressed ambivalence about the process, the importance of reflection, the difficulties involved, some of the factors that influenced their decisions, and the ultimate decisions they made. Evidence of decision-making over time was presented.

Goal setting. Goal setting was the final theme that came up in the context of performance accomplishments with 47 references from the study participants from all classes. Specifically, 23 references were made by 10 participants in Time 1 and 24 references by 11 participants in Time 2. For this theme, 6 participants made comments across both times (Dr. Brenda 97, Dr. Donna 96, Dr. Ellen 96, Dr. Janet 99, Dr. Maggie 96, and Dr. Teresa 99); displaying advancement over time. The participants viewed goal setting as one of the basic tools used by organizations and individuals to assist in setting a direction and achieving it. The women in this study talked about their career goals and, in some instances, organizational goals, as well as the strategies they used to pursue and achieve them.

One participant conveyed her strategy for developing community programs through her university, the timeline for implementation, and shared her enthusiasm about preparing herself for the opportunities that would ensue.

...the way I've strategized things I'm going to give myself six months to a year to get a couple of programs going at ... that are very near and dear to my heart and that reach out and grab the community. And then once I've accomplished that... which should take me a couple of years, I think that I will have achieved something very important. I think that there will be some doors that will open as a result of that and I think I will be more free because of my personal life to at that point reframe and reevaluate and to say what's next... I've recognized and decide that there are some things here I want to accomplish in the next few years. And then after that I'm going to move on and...now you ask where I'm going to move on, and I think when you think three years down the road it's really not possible to say where because opportunities are... they come along. So that's how I'm thinking that in the next two to three years I have some ideas for... in addition

to accomplishing things here at... for expanding my own horizons with more education. (Dr. Ellen 96, Time 1)

A second participant also spoke about goal setting with regards to career planning. She emphasized the importance of being conscious of how time and schedule fit into that plan.

... the biggest change is the notion that you've got to have a plan for your career. If you want to get to where you want to go, you better have a plan, and you need to think about how your day to day activities fit with that plan. Which doesn't mean that we all would have some duties that don't fit very well with the plan, but I think we just need to have increased awareness of that, kind of looking at how do I spend my time day to day, week to week, and how does that fit with where I see myself wanting to be... I do think about what I do in a broader way. I think about how I spend my time and where does that fit with my goals. (Dr. Maggie 96, Time 1)

In the context of organizational goal setting, a third participant referred to the ELAM session she had on strategies for change and how she employed the recommended strategies to work through a major policy modification.

...the session that ... did on strategies for change, I just study those over and over again and have employed those as I've been working through this major change. ...I have really employed advice he gave out there in a major way and it's been incredibly helpful. For example, he talks about when you are going to talk in front of a group of people and you are kind of out there – talking about things that are controversial and you are trying to move forward on it – one good thing is to find, I think he calls it, champion in the audience and to talk that person ahead of time – somebody who will speak on your behalf from the audience and I go around and talk to departments and have meetings with junior faculty and senior faculty to present these new ideas. I always try to do that – to find a champion that I meet with before the meeting. Coming up with a slogan – looking at change of a campaign – all of those kind [*sic*] of things I pulled out of his work. It has just been wonderful. (Dr. Teresa 99, Time 1)

Another organizational strategy for change related to goal setting came from the story told by a fourth participant about how, as the sole employee, and amidst skepticism, she implemented a plan to gain the support of the healthcare board so she could successfully move the foundation forward.

...but I have a very, a very knowledgeable board or trustees, with tremendous expertise and experience in healthcare. When they hired me they obviously had very certain expectations as to what I would do. I was the very first employee, and the only employee, so the first thing I told them was that I had expectations for the foundation's performance... And when I came in there were many trustees that expected I would be very, I guess, proactive in trying to really shape the board, to kind of bend to my vision of what ought to happen and I spent the first year being pretty accommodating and listening, which was extremely challenging for me, but I think very essential in both giving people due consideration for the hard work that they had done putting this organization up on its feet before I got here and allowing them time to build trust in who I was, the expertise that I bring to the job and to be, I guess, comfortable that I would be the primary spokesperson of the organization in a way that they can let go of some of that and that was very hard for because I'm very used to being very visibly outspoken and visibly in charge, but I had to really sit back and be restrained and in fact I was criticized by one of my, my board president actually who thought that I was sometimes too accommodating, and a you know, listened too much and didn't kind of seize the reigns, and I said, Ed, your point is well taken, that would be what I would normally do, but I didn't think that would work in this instance and I've given myself a very defined timeframe with how to act the first year, how to act in the first three years and I said I'll be where I want to be five years from now and that's where the board will be acting as the board should be and I will be acting as I should be, but it's not going to happen before five years from now, and that's exactly how it's going to unfold. (Dr. Donna 96, Time 2)

Analysis of goal setting over time. Across interviews and across times, this finding revealed examples in participant's comments of progress in goal setting over time. For instance, in Time 1, a participant offered this comment about goal setting: "...the session on strategies for change, I just study those over and over again and have employed those as I've been working through this major change..." In Time 2, referencing organizational goals, she seemed to have "changed the profile of the medical school" and "gotten me a lot of national notoriety." These are her remarks:

I restructured the promotion and tenure system here at the ... and the track system as my ELAM project and that has been a tremendous success, changed the profile of our medical school and has actually gotten me a lot of national notoriety. In fact, I was just invited to ... two weeks ago to give a talk that I give based on that experience. (Dr. Teresa, Time 2)

Another participant, in her first interview, said this about setting goals:

I've set goals and have been very explicit about that I want us to reach these goals, while leaving them lots of latitude. I mean the goal was more consistency in grading, so it was a very ... you know, lots of latitude. And I think we've come up with some great ideas... for once we're finally moving in the same direction and that I feel like we're developing some cohesion. (Dr. Maggie 96, Time 1)

Her second interview (Time 2) focused more on her personal career goals and said:

ELAM for me was a real; I think a real turning point in helping me to put my leadership potential in perspective. I think I was a person who wouldn't have, perhaps, moved into the tenure position. One of the thing[s] my dean and other leaders made real clear to me at the time of ELAM was to say at this institution you can't go any higher unless you are tenured faculty... it's getting to be that window where I'm thinking, am I moving to being a full dean somewhere? If so, what's the trajectory? (Dr. Maggie 96, Time 2)

In summary, on the subject of goal setting, the women spoke about its relevance for both career planning and organizational strategizing. They talked about the strategies they learned from ELAM and how they employed them to work towards the achievement of organizational goals and career objectives. Examples of goal setting over time were presented. Goal setting is a key element of leadership development and enhances the opportunity for performance accomplishments in the future.

Research Sub-Question 2: Vicarious Experiences of the Study Participants

Sub-Question 2 examined the participants' experiences relating to their leadership development and Bandura's (1987, 1997) self-efficacy source of vicarious experiences. During this examination, together all of the participants in Time 1 and Time 2 offered a total of 316 references to vicarious experiences; 123 references in Time 1 and 193 references in Time 2. Bandura (1997) defined vicarious experiences as experiences "mediated through modeled attainments" (p.89). There are several processes by which modeling exerts its effects on efficacy beliefs. In addition to social comparison, the

attainments of others who are similar to oneself are judged to be diagnostic of one's own capabilities. Seeing or visualizing people similar to themselves perform successfully typically raises efficacy beliefs in observers that they themselves possess the capabilities to master comparable activities (Bandura, 1997). Bandura (1997) further asserted that modeling influences do much more than provide a social standard. That is to say, proficient models express "efficacy by word as well as actions" (Bandura, 1997, p. 88). For example, while struggling with problems, models may voice hopeful determination and the conviction that problems are surmountable and valued goals are achievable. In complex activities, the verbalized thinking skills that guide actions are generally more informative than the modeled actions themselves (Bandura, 1997). In response to the interview questions, study participants provided descriptions of their vicarious experiences in relation to their leadership development.

Table 16 illustrates that the vicarious experiences descriptions clustered into the three main established areas of Bandura's (1987, 1997) self-efficacy frame: (a) networking, (b) modeling, and (c) mentoring. Deeper examination revealed seven subthemes within the major areas shown in Table 17.

Table 16

Percentage of Change across Interview Times by the Vicarious Experiences Theme

Vicarious Experiences Theme	All Participants Time 1	All Participants Time 2	Total No. References	Percentage of Change
Networking	57	46	103	24%
Modeling	19	23	42	21%
Mentoring	47	124	171	164%
Total	123	193	316	57%

Table 17

Top Three Themes and Subthemes for Vicarious Experiences

Themes	Sub Themes
Networking	Internal Networking External Networking Establishing Friendships through Networking
Modeling	Performance Similarity Modeling Diversified Modeling
Mentoring	Mentoring from Deans and Other Advanced Leaders Mentoring Others

Networking. Networking was mentioned when the study participants described the vicarious experiences that helped contribute to their leadership development and career advancement. All 19 participants referenced networking 103 times in both Time 1 and Time 2 with a robust increase or expansion of this theme over time. There were 57 references in Time 1, increasing to 46 references in Time 2. The participants described

networking as the act of making contact and exchanging information with other people, groups and institutions or organizations to develop mutually beneficial relationships for the furtherance of career, positional and or organizational objectives. Bandura (1986a) posited that multilinked relationships may convey more information and mobilize stronger social influences that produce beneficial results to enhance self-efficacy and instill positive outcome expectations. The participants expressed general thoughts about the overall significance and benefits of networking both during and after their ELAM experience. They talked about having access to the knowledge and experience of other ELAM women, information sharing, establishing relationships, and trust. Three subthemes emerged related to (a) internal networking, (b) external networking, and (c) establishing friendships through networking. Benefits gained from networking was a subtheme that was subsumed under the overall theme of networking as there were not enough data for it to be sufficiently established.

Generally speaking, one participant talked about her networking experience and how ELAM had boosted her ability to access other women who could provide a multiplicity of assistance.

ELAM helped me with networking for one thing. Not in terms of anything that obtained my position, but networking in terms of cadre of very talented individuals that I can get invites from, get letters of reference from; have them tell me if I am crazy to pursue things or whatever. So that was the most outstanding contribution. (Dr. Donna 96, Time 2)

Speaking for who she thought were all ELAM alumnae, a second participant made it known how she felt about networking and its value. She expressed her sentiments about the confidence ELAM evokes, the allegiance of the “sisterhood,” and some of the ways they readily responded when called upon.

The thing that all of us are going to tell you is that there's not value, it is invaluable this network, this fact that you know so many people and all you have to say is ELAM and all of a sudden there is a lot of mutual trust, a lot of information sharing, very generous career guidance and counseling, people know people and will help, you know, like if you are doing a search and you call up one of your ELAM folks and say give me the skinny on this person, they'll tell you the straight dirt. Because they wouldn't besmirch the sisterhood. (Dr. Earlene 96, Time 2)

Making a similar comment about her class of fellows, a third participant spoke about establishing relationships, building trust, information sharing, and how the benefits of networking had exceeded her expectation.

I think the most obvious benefit that I'm sure all the fellows would recount is just the benefit of knowing each other and getting to know each other well enough that information is shared on a peer level. It didn't take very long to create the camaraderie and the rapport that was required for people to begin sharing information. But just among the 25 fellows there was a lot of really important information to be shared, so I think that was a huge leg up, a huge bonus of ELAM which I anticipated. I really thought that was going to be important, but I never imagined that it would be the way it was. (Dr. Harriet 96, Time 1)

A fourth participant spoke assuredly about how she and, perhaps others, perceived the benefits of networking.

I'm probably not the only one who will tell you, the real benefit was the networking, the people I met, the connections I made and have been able to maintain since ELAM... it's fun really to meet ELUMS from other classes – it's expanded that network for me... they've been very helpful to me. (Dr. Janet 99, Time 1)

In summary, the women in this study spoke about the overall importance of networking and the benefits derived from interacting with other knowledgeable and experienced women. They also talked about how establishing relationships facilitated a willingness to share information that included career guidance, counseling, and further expansion of their network. Networking appears to be a way to stay abreast of trends and

opportunities which is essential for leadership development and connects to the self-efficacy source of vicarious experiences.

Internal networking sub-theme 1. Internal networking was a subtheme that emerged under the main theme of networking. The participants produced 22 references to this theme; 5 from Time 1 and 17 from Time 2. Nine of the 19 participants shared their internal networking experiences; 4 from Time 1 and 7 from Time 2. Dr. Frances 97 and Dr. Samantha 99 alluded to this subtheme in both times, showing some improvement in this ability over time. Each class was represented in Time 1; however, only the classes of 1997 and 1999 were represented in Time 2 comments. Networking with colleagues or individuals within an organization was perceived as vital to organizational performance and leadership success. Several participants spoke about how networking within their organization helped build important relationships with other ELAM alumnae, encouraged reaching out to others, created opportunities for promotion, expanded their overall internal network, and offered information and activities that promoted a positive environment.

One participant talked about how she engaged other ELAM alumnae within her university and some of the activities she participated in to connect to other women.

...we have six ELAM graduates at the University of ... so one of our new faculty, well fairly new faculty who does academic development ... gets us together and we have dinners and talk and review books like the Linda Babcock book about women don't ask, which is a wonderful book. So, there is this piece of me that I kind of think about as the ELAM piece that gets me pulled into activism about women's issues on campus on so I'm on the University of ... faculty senate, the committee for women and in various organizations I am always gravitating to the committees on women and looking at women in organization. Those are things that I would not have done before ELAM. (Dr. Abbey 99, Time 2)

A second participant spoke about the bond that developed between her and the other ELAM fellows on her campus. She mentioned some of the activities they shared together as well as the supportive environment they created amongst themselves.

And that's how I feel with the other ELAM fellows, we have actually a group and our dean supports us. We don't have time to do much, but we even have money that we can do a project, we go out for dinner together, we've only done it once so far because we are all just too busy, maybe we are victims of our own success, but it is really fun to have each other around and to be able to talk to one another and it's a special relationship all of us have I think with each other, as a group. (Dr. Janet 99, Time 2)

Analysis of internal networking over time. The data analysis across interviews and times revealed two examples of an increase or enhancement of internal networking over time. In the first example, in Time 1, without elaborating, one participant seemed to casually say "...it's been very positive networking within my own institution..."

Whereas, in Time 2, she appeared much more effusive in describing her networking experiences within her places of employment, saying:

...one of the most concrete values of ELAM was using it as a ticket within ... to go and grow those networks. So during that ELAM year, there were people that would talk to me who otherwise would never have made time to talk to me...ELAM specifically opened doors for me relative to that and I'm very grateful for that... within a month of being there I had made sure that I had met the deans of all the colleges and the chairs of all the departments, medicine and things like that, used that credential [ELAM] and established that network. I also used that credential to kind of legitimize but also force me to call people. . . I'm smart enough to know that I should do the networking but I am basically a fairly introverted person and so it is not something that I do naturally and yet because I have this title and because...part of my job was to be a good ELAM fellow or to be a good ..., it gave me a structure that allowed me personally to call people that I otherwise would never have called and said, "Hey can I talk to you? ...I have a series of questions." And through that, that has actually been a very important part of my network building... (Dr. Frances 97, Time 2)

In her first interview, a second participant shared how she connected with another ELAM Fellow who came to be employed as Chair in her School and said she was "pleased that she came – to me that was a benefit..." Given that she was orienting the

new chair to the campus environment and its politics, this appeared to be a situation of mutual networking that might be beneficial to her in the future. However, in Time 2, it seemed obvious that over time, she had expanded her internal network significantly.

These were her comments:

I'm thinking partly of my own university. I've done so much in ... and in the last two years I've been required to present at board meetings. This week I am presenting at three different hospital boards, I'm getting to know way more people than I used to locally... the interesting part of ELAM that I hadn't talked about was the fact that you bring it back and you are asked to interview the top people on your own campus... you get a familiarity with the system and then you when you have something you need to do like in the ... complaints about parking or benefits I can pull in experts from all over the campus and I feel, I probably feel more comfortable... (Dr. Samantha 99, Time 2)

In summary, the study participants related their thoughts about the importance of internal networking. They talked about the bond established among other ELAM alumnae on their campuses, fostering a supportive environment, other relationships that were built from reaching out, the expansion of their networks, and the opportunities that resulted. From these data, internal networking within an institution or organization emerged as crucial for building relationships and bridging organizational silos that can impede leadership success and organizational performance. Evidence of internal networking over time was presented. Broadening one's leadership ability through the observation of other successful leaders and informal mentoring is linked to the self-efficacy source of vicarious experiences (Bandura, 1997).

External networking sub-theme 2. External networking was the second subtheme that surfaced under the primary networking theme in relation to vicarious experiences and leadership development. In Time 1, 17 participants made reference to external networking 42 times and 6 participants made 18 references in Time 2 (none in

the Class of 1996). Of the 6 participants in Time 2, 5 talked about this subtheme in Time 1 as well (Dr. Abbey 99, Dr. Gail 97, Dr. Gloria 99, Dr. Irene 99, and Dr. Samantha 99). The participants, overall, described external connection-making as a key part of developing and implementing a leadership strategy. They commented on various aspects of external networking including the value of having an outside network, soliciting advice, resourcefulness, and being able to access someone when needed.

One participant talked about networking with other deans, having a coach, and meeting with various constituents as she pursued objectives.

Those of us who have become deans connect and I think ELAM may be part of it but honestly I think it's more that we're deans now when we're doing kind of a common job but where ELAM was incredibly helpful was I knew ... I knew she cared about it and I think you know that ... actually became very ... I used ... as a coach during the time I was making the transition between ... and the next job and the likelihood that I would have used ... or used someone like ... would have been much less without ELAM. That's a place where I see the external networking is important... and so my network I called those presidents and I said, "Can I come . . ." (Dr. Frances 97, Time 2)

A second participant talked about the immense value of expanding her network to connect with a diverse group of resourceful people and the relief she felt knowing that they were there if she needed them.

...it provided is an important network of other people who serve as a resource, a sounding board and so on, which is also, I think, very valuable... it's really different because the network before are mainly just people in my own institution who are people who are in my scientific field and this is a network of people who are clearly interested in administrative issues, people who have different backgrounds and different experiences and people who bring the experience of different institutions to bear . . . so it really is a broadening of the network. Also I think the email... the ability to contact everyone on email and get advice or sympathy or whatever is needed at the moment is really very comforting... (Dr. Carolyn 97, Time 1)

Analysis of external networking over time. Comments from five participants across interviews and across times, showed expansion and increased use of external

networking over time. For instance, in her first interview (Time 1), one participant said ELAM helped her realize the advantage of having women colleagues across the country. Additionally, she said "...It certainly can be a resource and a network, and can propel us towards having a critical mass. So, I have kept in touch with a lot of my fellow ELAM classmates..." In her second interview, her comments suggested a powerful realization of the significance of external networking. She had this to say:

...it could have been career suicide but I had a network of people...ELAM really made me see the importance of getting to know people and work with people well outside of your own system...when I was looking at different jobs to be able to call people and say what's the work environment for you and have you heard about how things are in psychiatry and what's the scoop on so and so chair. I mean having the personal connection at; again, pretty much everywhere in America is really very helpful. (Dr. Abbey 99, Time 2)

In another example, a participant's comments seemed to focus on the personal benefits of networking, the validation she received on things she was doing right and how she might share those benefits with others. Also, her comments seemed to lean more towards listening and absorbing what the other women had to say.

...I think the other thing that was a great learning experience was the networking and learning what other women are having concerns about in other institutions. I think what other people have done and how they've approached it helped or reinforced that I was doing some things right and maybe I was able to give that benefit back to some other people... (Dr. Gloria 99, Time 1)

In her second interview (Time 2), this participant appeared to demonstrate an expansion of the leverage she acquired as a participant in ELAM, connecting with the knowledge, power, and influence of her peers.

I think that the networking process has actually helped me do my job better. Because just hearing other people's experiences and having other people to run things by, and those are directions that I think have been extremely helpful. I guess there are some people in my group that we've, when we've talked about looking in different positions and so forth and what do you think about something in this position? What are the ups and downs? Where are you going with this? I

guess more career advice. I think also people have gone off in their own ways and I must say that I have tried to keep in touch with the group and some people have depended on me to send out emails and that... (Dr. Gloria 99, Time 2)

In summary, the women in this study expounded on the significance of external networking and the benefits they gained. Specifically, they talked about the resourcefulness of a diverse group, accessing expert knowledge and opinions, helping to avoid potential problems, and the overall willingness of their network partners to be available when needed. Examples of external networking showed expansion over time. From these data, external networking that enhances creativity, enables better problem-solving, and promotes a more informed and efficient leader; and when developed effectively, emerged as a also self-efficacy source of vicarious experiences.

Establishing friendships through networking sub-theme 3. The third subtheme was establishing friendships through networking. This subtheme, which included each class, produced 21 responses by 11 of 19 participants; 10 responses from 7 participants in Time 1 and 11 responses from 8 participants in Time 2. Four participants spoke about establishing friendships in both times (Dr. Carolyn 97, Dr. Freda 99, Dr. Janet 99, and Dr. Teresa 99). Generally, the participants explained that networking was about building rapport, having substantive conversations and finding commonalities with other professionals. For the women in this study, friendships grew out of the meaningful conversations and interactions that mutually advanced their professional goals. In particular, they talked about lifelong friendships, personal and professional support, taking risks, having family outings, and participating in other activities outside of work.

With regard to friendships, one participant shared her thoughts about the ELAM friends she established and how important they were in her personal and professional life.

She conveyed her sincerity about having ELAM friends for life and what they meant to her as she continued her career growth.

Well not only the leaders and the teachers of the program, but also the ELAM fellows. One ELAM fellow came to visit me two weeks ago, she was interviewing at (INAUDIBLE) nearby and she came for the weekend and we had a lovely time. And these are going to be friends that I'm going to have for a long time, a number of them, and I think that given everything, that friendships for me are some of the most important parts of my life. But are...it's a part of my life that's the hardest to develop and maintain in that I have busy home life with three children and a husband who is a physician, and I have a busy professional life. It gets lonelier and lonelier, frankly, the higher you rise. And I don't have as many female personal friends or even professional friends as I think men do. So this has been a way to gain a number of professional contacts and then some closer female friends. (Dr. Donna 96, Time 1)

A second participant talked about a core group of people she got to know and the lasting friendship they built.

The small group I think was very important in terms of socializing – you had I think the number was a total of 8 people who really got to know you very well. So you have some personal relationships that really sort of work no matter where you are. They are good friends. (Dr. Samantha 99, Time 1)

A third participant mentioned the friendships she developed with a group of ELAM women and briefly talked about the getaway excursion they shared.

Yes, I actually have made a very close friendship with four women and I met at ELAM to the point that three of us were able to get together last month on . . . to just run away from our work and our families for a weekend in... (Dr. Brenda 97, Time 1)

Analysis of friendship through networking over time. An examination of this finding across interviews and across times revealed that after networking through ELAM, four of the responding participants maintained or continued to create and build friendships over time. For instance, in her first interview (Time 1), one participant seemed to be reminiscing about reconnecting with a long-time friendship after learning that “she was in the current ELAM class...” In her second interview, she appeared to

quietly ruminate on her many friends that had gone through ELAM, their resourcefulness and support, and the bonds that were created. These were her expressions:

So, many of my friends actually have been through the ELAM program, in fact people I knew before ELAM, who have since been in ELAM since I have and you know, in different years we seem to come through that common pathway... And I think it strengthens those bonds of friendship you know? And those cut all across the country I mean in different disciplines. So, the friendships I formed there have been very strong in my decision-making you know, in my career. And also kind of helped me you know, have the strength to go out and do something totally new, totally from scratch. (Dr. Freda 99, Time 2)

Similarly, in Time 1, a second participant appeared to be straightforward in mentioning the support she received from classmates and the friendships that resulted. When speaking about a particular friend, she said "... and I, I think, would have friends anyway outside of ELAM – but that kind of helped start it..." Later, she seemed to be reflecting on the previously mentioned friendship but in the context of mentor. Her comments were very descriptive about the help she received from her friend and the expansion of her network because of it. This is what she said:

... I met one person in particular... who was my classmate who was into faculty affairs... she was in a higher position than I was in; she was already assistant dean or associate dean or something. We become very good friends, we still are actually. And through her I learned, she basically mentored me in the background, as to how to do this. Not just how to do with my dean, but what faculty affairs really was because she had been doing it. And she introduced me to other people in the area and I went to faculty affairs meetings at the AAMC, which I never would have gone to otherwise, I maybe would not have known about them. So, it was really through our friendship and then going to the faculty affairs meetings that I built a bigger network ... (Dr. Janet 99, Time 2)

In summary, the women spoke about the many friendships they had established because of their ELAM experience and the personal and career benefits of support, mentoring, guidance, and network expansion these lifelong friendships afforded. Through the strong network of women that ELAM offered, perpetual friendships were

born that provided a true support system for leadership development and a connection to the self-efficacy source of vicarious experiences. An analysis over time was presented.

Modeling. The second theme that emerged related to Sub-Question 2 was modeling. Modeling serves as another effective tool for promoting a sense of personal efficacy and relates to the self-efficacy source of vicarious experiences. Bandura (1977) emphasized the importance of observing and modeling the behaviors, attitudes, and emotional reactions of others. He asserted that “most human behavior is learned observationally through modeling: from observing others, one forms an idea of how new behaviors are performed...which later serve as a guide for action” (p.22).

Modeling was reported by all 15 participants, with 42 statements of reference, 19 in Time 1 and 23 references in Time 2. Ten participants made statements on the subject of modeling in both tiers or over time. This modeling theme revealed statements from study participants about the value of interacting with women who have similar problems or challenges, have similar job titles or positions, and after hearing their stories, feeling that they understood and could relate to each other. Two subthemes surfaced with regards to modeling: (a) performance similarity modeling, and (b) diversified modeling.

Performance similarity modeling sub-theme 1. This subtheme materialized as the study participants disclosed statements relating modeling to the self-efficacy source of vicarious experiences. They made a combined 17 statements from all classes related to this sub theme with 9 from Time 1 by 8 participants and 8 from Time 2 by 7 participants. Dr. Carolyn 97 was the only participant who referenced this subtheme over time, in Time 1 and Time 2. The women in this study spoke about feeling comfortable talking to friends and other peers who were at or above their level located in different

areas of the country, asking for help, listening to stories, and challenging themselves to improve.

Of importance to one participant was meeting people at the same or higher level than she and being able to communicate with people across the country who shared similar experiences.

I think the primary thing has to be meeting other people who are at the same level or above. There were several department chairs there who have more extensive responsibilities than I do in the sense that they have a focused responsibility about resident education, all kinds of facets of a department. Then, there were other people with less focused responsibility. Any way you look at it there were people from around the country that you could talk to who had similar experiences... (Dr. Samantha 99, Time 1)

A second participant talked about identifying with women at the same career level who had similar challenges and being able to freely express herself. She also talked about having access to more senior women for advice and guidance if needed.

I think often times ... you feel like you don't have a group of women who have gone through the same thing you've gone through or who are at the same stage in their careers as you are that you can talk to freely and not feel like you're whining or that you feel like your bragging or something. This was a group that became close that we could talk sort of any which way we wanted to and have an outlet for some concerns or questions. Some of the people in my small learning group – we've actually kept decently in touch with each other, even now. We just sort of let each other know what is going on or reinforce the idea if somebody needs to talk about something. I think that in a way of knowing there are, in our group, 35 besides myself, senior women you could call on if you just wanted to run something by or had a concern about something or weren't sure about something and needed reinforcement one way or the other, either positive or negative. You have people that you can call upon out there who might be going through the same thing or be able to see if from a different perspective or step back from a different perspective... (Dr. Gloria 99, Time 1)

Hearing the leaders tell their story was informative to a third participant. She talked about conversing with them regarding the pros and cons of issues concerning to

her and getting a sense of her own status comparatively. She mentioned that she was looking forward to further exchanges.

... well some of the information and attitudes transfer, and again, not only in the issues that are met but in terms of the leaders telling their stories. Also the opportunity to talk to colleagues at a similar level and hear their stories and approaches and their experiences about what worked and what didn't work. And again, feeling out where I am in the context of what other people are doing ... Certainly I met a lot of people that I really enjoyed interacting with and are on the same wave length, and I do anticipate interacting with ... (Dr. Mary 96, Time 1)

A fourth participant shared her sentiments about having friends in similar positions at other institutions that she communicated with regularly about various ideas or topics of concern.

Well, just close friends now who have similar positions that I can call. Actually some of our learning group call each other every month and just talk about what's going on in our lives and the kinds of projects, the kind of challenges we are having. It is so nice to be with a group of women who are basically at the same level that I can talk to. I have friends at the institution, but it is really valuable to have friends in similar positions at other institutions. (Dr. Teresa 99, Time 1)

Knowing somebody somewhere in the country, according to a fifth participant, who has dealt with similar issues was valuable. She spoke about being able to call on people to ask questions and elicit suggestions on how to handle particular problems.

I know somebody just about everywhere across the country now. So, when issues come up like this problem I know pretty much someone who has faced something similar and I can call and say, just even questions that are hard to discuss like did you feel like it was all your fault and how did you deal with that, or when the chair acted like this what did you say, and even sometimes what words worked for somebody else are helpful. (Dr. Abbey 99, Time 2)

Analysis of performance similarity over time. An examination of across interviews and times (Time 1 and Time 2) revealed one participant who commented about performance similarity modeling over time. She mentioned that her intent for

participating in ELAM was to find peers in similar situations as hers to connect with.

She said this:

...part of the reason that I went [to ELAM] was to find friends of similar persuasion with similar problems and that certainly has happened for me and there's a whole group of people that I really do depend on that I've maintained contact with and have seen recently...that I think will continue to be a sounding board and a help for me as all of this unfolds, so that has been very valuable. (Dr. Carolyn 97, Time 1)

In Time 2, she appeared to be reflecting on her experience of "...interacting with other people who are kind of in a similar stage of development and interested in leadership issues..." She mentioned "interacting with like-minded women," as opposed to men, as being "very, very valuable" to her. In this excerpt from her second interview, Dr. Carolyn 97 seemed to have found the connections she was looking for in her Time 1 interview; thus, constituting growth in relation to this finding over time.

In summary, the women in this study spoke about how they valued interacting with women who were in similar positions as they. Specifically, they divulged feelings about interacting with women who were at the same level and the ease they felt asking questions and talking to them about anything. The influential role of performance similarity strengthens one's capacity for leadership and is a direct link to the self-efficacy source of vicarious experiences.

Diversified modeling sub-theme 2. The second subtheme that surfaced was diversified modeling. Eleven of the 19 women in this study alluded to diversified modeling a total of 25 times. Ten statements were made by 5 women in Time 1 and 15 statements were made by 7 women in Time 2. A statement was made in both times solely by Dr. Abbey 99, depicting little representation of this subtheme over time. Only the class of 1996 was represented in the comments for Time 1; except for one comment

in 1997, the comments in Time 2 were from the class of 1999. The study participants conveyed thoughts about observing role models and the confidence they inspired, the value of hearing other women's stories, emulating the best characteristics of the leaders, consuming their willingness to share, and striving to be better leaders themselves.

One participant characterized the women she encountered as role models and/or mentors. She was struck by the accomplishments of each woman and how discerning it was to realize her potential and what she could achieve.

...exposing me to women who were confident, competent and who had achieved a variety of different things in a variety of different ways. So to sum that up in one word I would say possibly role models and/or mentors, and to see the variety of different ways women have achieved... The peers ...the same thing for the peers, looking at each peer and seeing how each woman had achieved ... and one of the things that struck me was if you looked at what each person had achieved and you...as we got to know each other ... I think getting to know each other was wonderful because you could see how their achievement matched their personality and their style of interaction. And it gave a very realistic and insightful view of what I can achieve given what I know about myself and where my limitations are and where my opportunities are... know that may sound strange, but what I saw in each of our leaders was that each one had a different passion and a different style and those things took them in different directions, all of them successful... know that may sound strange, but what I saw in each of our leaders was that each one had a different passion and a different style and those things took them in different directions, all of them successful... one of the big learning things for me was watching women with different talents and recognizing your own talents... (Dr. Ellen 96, Time 1)

Reflecting on leadership, a second participant spoke about the leaders' different stories she heard and concluded that they had dealt with problems throughout their career just as she had. She talked about the value of seeing so many accomplished women at such high levels, being able to talk to them and feeling inspired.

...one of the most valuable parts is meeting many people, especially hearing the small group session, hearing stories from specific people. You meet all these highly successful women and you have this picture that their life was perfect... And that they just made these choices and you didn't make them... You know, but when you talk to them and when they talk, more powerfully, when they talk

about their life story you realize that there is nobody without some major stress. That they just didn't go along like perfection and things just fell into their lap. Each one of them had difficulties just as I did myself ... I think ELAM is actually very valuable before that even because it gets you to see different women, meet different women in different posts... different kinds of positions, talk to them about what they are doing, what they like about it, and think about well, some of these are not what you went to medical school for and they weren't maybe in your mind as something that you wanted to do and so you aren't really sure what it means to do... When you get to meet other people who are associate deans and deans and you know, ...vice chancellors, whatever, vice presidents of hospitals, PhDs running centers, you get a feel ...for what the other options are and I think, I guess I'm thinking the word comforting but it's exciting too to meet them and to see all of the things they are doing and accomplishing ... (Dr. Samantha 99, Time 2)

A third participant gave an analogy about creating a leadership style. She talked about observing the strengths of the leaders and extracting those behaviors that characterized her own leadership style with a goal of trying to be better.

I think that was the most surprising thing. These people that were, to all of our eyes, leaders were not stamped out of any cookie cutter mold. They were very different and that was reassuring in a way because you're not sure if you've got the superman stuff, you know, if you can get yourself into that suit. But when you find out that there are quite a few suits to choose from or that maybe you could create your own style of leadership... And if you work with people long enough you can see what their absolute strengths are, and if you can embody all of the strengths of the people who are teaching you can actually be better than they are. And I think the same thing I've found might be true in watching our leaders. There may be certain facets of each one that we need to take home and try to embody into our own leadership style. (Dr. Harriet 96, Time 1)

Analysis of diversified modeling over time. The analysis across interviews and both times showed one participant who mentioned diversified modeling over time. In her Time 1 interview, Dr. Abbey 99 spoke about the idea instilled by ELAM on “learning from everybody.” She appeared to show a keen understanding of diversified modeling in these comments:

I think the idea that ELAM gives you about learning from everybody –but there are a lot of people who can help you in broad ways or in limited ways and listening to hear who those people who want to help are. And, my sense is that there are really a lot of them... Many more than I had thought before. That, the

minute you start asking senior women ...about their experience and advice ...It's like "Oh, gee, my experience can be useful to somebody." So, I think the idea to have multiple people giving you information and advice and kind of put it together to come up with what's the most comfortable solution for you is really another one of the things I took from ELAM. (Dr. Abbey 99, Time 1)

Her second interview (Time 2) seemed to be a confirmation of her Time 1 viewpoints.

ELAM was different because... To have a critical mass of women in one place and the way the ELAM is run in that very intense personal way...It was really a different experience... (Dr. Abbey 99, Time 2)

In summary, the participants in this study spoke enthusiastically about the diversity of women they encountered through ELAM and were awed by the fact that so many of them had either reached the pinnacle of success or were on a trajectory to do so. They talked about observing other women's leadership strengths while evaluating their own and aspiring to be better leaders themselves. Diversified modeling provides multiple opportunities for women to observe the cognitive, attitudinal, and behavioral leadership skills of experienced leaders who model a pathway for other women's leadership development which is commensurate with the self-efficacy source of vicarious experiences.

Mentoring. Mentoring was the third theme that emerged under Sub- Question 2 relative to vicarious experiences and leadership development. Mentoring was mentioned by all 19 participants in both times except three in Time 1 (Dr. Maggie 96, Dr. Carolyn 97, and Dr. Teresa 99), resulting in a combined 171 references; 47 in Time 1 and 124 in Time 2. According to Eby et al. (2010, p. 510), "mentoring refers to a developmentally oriented interpersonal relationship that is typically between a more experienced individual (i.e., the mentor) and a less experienced individual (i.e., the protégé)." Functioning as experts, mentors provide authentic, experiential learning opportunities

through modeling. Through their actions and articulated ways of thinking, mentors coach effective skills and strategies for leadership development. The participants in this study shared their thoughts and experiences with regards to the mentoring they received. In general, they talked about the gratitude of having someone work with them, receiving career and positional direction, getting guidance on problem-solving, and the overall importance of mentorship. Two subthemes emerged related to mentoring which will follow these general comments on the subject: (a) mentoring from deans and other advanced leaders; and (b) mentoring others.

One participant spoke about her mentoring experience and her approach to taking advantage of the opportunity to work with someone who was in a position she was interested in pursuing. She expressed astonishment at being mentored by someone who really did not know her.

...it's all back to the mentorship issue which is a real hard thing to get by calling somebody up and saying 'I want you to mentor me.' It's much better ...maybe ELAM was a nice opportunity for us to meet a lot of leaders because I actually did do that with ... I made a point of seeing her because she's a pathologist and because she's a vice president ... I would like to be a vice president and I am a ... so I thought we might have something in common ... what her pathway was from where I am to where she is so I'd see if that was a pathway I should try to follow or there was any way to follow. But the most important thing that happened when I talked to her was that she said "What can I do for you?" and I said to her, "You can remember who I am." And the next things she said was "We need to get you on national committees." And it was like a big crack in the glass ceiling because now someone who could possibly name me at a time when people are getting picked for these national committees was saying they would do it... It was like a multi-faceted kind of mentorship through ELAM just because we met these people and they accepted us as being worthy of their interests. Who knows why? They don't know me from Adam, they don't know me. (Dr. Harriet 96, Time 1)

A second participant talked about meeting someone who became her mentor. She mentioned being able to ask questions as well as receive career and positional guidance.

...but through ELAM I met her and I think because she was on the board of ELAM it brought us closer, brought us more to the same circle. Since she's come out to ... to give the lecture, she's become one of my mentors and I can call upon her to help me in my career and in my institution. That's one example of connections I've made in terms of people I know that I can now call to ask the questions. (Dr. Janet 99, Time 1)

A third participant expressed gratitude for the mentoring she received. She gave an example of receiving direction on a tuition increase problem she was dealing with.

... because I wasn't expecting him to do something that he couldn't do in the ..., he became a wonderful mentor to me within the constraints of what he could do within ...and he has subsequently been a tremendously helpful mentor to me. An example of that was last year ... higher education funding in ... is very, very difficult and I was trying to work through what tuition increase I was going to do and I called him just to brainstorm him and I was kind of telling him where I was coming from and he said "Well, that's one way to look at it but let me suggest another way." And he came back with an analysis that was actually a higher tuition increase than I had even thought about at that point but it wound up being very close to the analysis to the tuition increase that I give and I just cannot tell you how valuable it was. He was willing to be a mentor. He was a wonderful mentor. (Dr. Frances 97, Time 2)

A fourth participant talked about her mentoring experiences with primarily males and having different coaches over time.

I did and interestingly, they were all male. I never really have had a female mentor I don't think. But I've had people to whom I reported who allowed me to have you know, to move up and to have a lot of practical experience... Besides the SELAM and ELAM activities, I actually spent a lot of time with coaches who were coaching other faculty members... they have different approaches and things. So I've actually learned from participating in that activity and then there's actually a person who serves kind of as coach for the executive leadership of the institution and so I have access to him. He has done some personal coaching for me on occasion. (Dr. Carolyn 97, Time 2)

Emphasized by ELAM, a fifth participant acknowledged the importance of mentoring as taught to her early on in her career.

ELAM reinforced it but the woman who mentored me when I was a post-doc was a woman very alone in science when she started and she taught me a lot so I benefited a lot from mentors very early in my career and I recognize that. I knew

the value of that. No one had to tell me that. And learning, you know, her views on what was important for success... (Dr. Brenda 97, Time 2)

A sixth participant spoke about the mentoring she received from the person assigned to her in terms of the future direction of her career.

I did talk to, before I went to ELAM, or maybe between – at the AAMC which was in November, so between the sessions, I spoke to the person who was my mentor ...she was assigned as my mentor. We talked about what are your goals and how do you pursue them. She probably spent one hour of her lunch it was really valuable. It was the kind of thing I think we were lucky we were at the same meeting and we took the opportunity to do and we happened to be able to work out an hour. (Dr. Samantha 99, Time 1)

In summary, participants in this study talked about the value of mentoring and the guidance they received over time with problem-solving, setting goals, career advancement, positional issues, conflict resolution and other matters. Mentorship can lead to behavioral, attitudinal, and performance change which encourages leadership development and links to the self-efficacy source of vicarious experiences.

Mentoring from deans and other advanced leaders sub-theme 1. Receiving mentoring from deans and other advanced leaders was revealed as all 19 of the women participants in every class articulated their mentoring experiences. This subtheme was mentioned 83 times, 33 mentions by 13 participants in Time 1 and increased to 50 references by 16 participants in Time 2. Ten participants (Dr. Mary 96, Dr. Ellen 96, Dr. Earlene 96, Dr. Harriet 96, Dr. Frances 97, Dr. Gail 97, Dr. Gloria 99, Dr. Janet 99, Dr. Olivia 99, Dr. Samantha 99) made multiple statements across both times. To that end, the women in this study spoke about the mentorship they received from their deans, chairs, presidents and other advanced leaders. In particular, they talked about engaging several mentors, career advancement and opportunities, preparation for promotion,

targeted skill development, and being educated on how to approach high level administrative leaders.

One participant talked about several mentors and the mutual ease with which they openly and regularly communicated, the information shared, and the time they spent discussing career objectives and opportunities. She also spoke about feeling protected from unwieldy positions that could negatively impact her career.

We spent a lot of time talking and he seemed to feel much more comfortable with me and vice-versa. So, we actually have regular meetings since then, and he emails me with all kinds of information and we have a very open, clearly changed communication style... there is actually a dean of research who is a man, invited me to think much more about Dean of Research positions, what about deanships, what about, the several endowed chairs in women's health in the country, one of which is in ... that ... is writing me a letter for. (Dr. Abbey 99, Time 1)

It's interesting because the Dean here has been pretty openly discouraging about my taking that Chair position. He is actually worried about that in that it's in the whole and how the department overall is viewed. It's not in his best interest to be discouraging me, but he is. So, I have the sense he really is looking after me more personally and professionally than fulfilling the system's needs. (Dr. Abbey 99, Time 1)

The other person is the Dean of Research in ... who is an older man and has kind of taken me under his wing. I get the ... that he feels like I'm kind of his daughter. He likes to give me his perspective on different career options and what the rules are around declining jobs. (Dr. Abbey 99, Time 1)

A second participant shared her rationale for why, since ELAM, her dean was presenting her as a leader to various people and speculated that she was being groomed for a leadership position.

...my dean going around now introducing me as a leader. Now that did not happen before I was accepted to ELAM, and I think if he survives as dean long enough he will see me in some sort of leadership position. I really think he'll do it, I think he'll follow through, and I think all of this sabbatical is just a way for me to be groomed, to meet the right people, to have a chance to present data in front of the right people, have them know me as somebody other than oh just that radical feminist who cares about women's health issues and why the salaries

aren't equitable. You know, they need to know me in a different light. (Dr. Harriet 96, Time 1)

With regards to her mentorship experience, a third participant spoke about being prepared by former and interim presidents for what would ultimately be an offer on the cabinet of the new president.

... the president and ... was in for president and we created a nice document that we used broadly ... so when the new president came on, ... I sort of handed it off to him and said that this was the work that I did with ... I'm very interested in learning more about ... administration and public and state ... and that was that and he thanked me and I met with him a few times you know, ... and talked with him about diversity from my perspective and then this post came up as he was re-doing his cabinet and he called me up ... and asked me if I wanted to do it and I said no a couple of times ... I just kept talking back and forth with the provost. I talked with the then CFO and I decided to do it... The other side is that it gives me some access to people who can help me with mentoring for academic posts like leadership posts in the academy like president dean... (Dr. Gail 97, Time 2)

A fourth participant talked about a classmate who was in a higher position as assistant or associate dean and the mentoring she received on how to interact with her dean as well understanding faculty affairs. Her mentoring included meeting other people and attending relevant meetings.

...it was the people I met. I met one person in particular ... who was my classmate who was into faculty affairs by the, she was in a higher position than I was in; she was already assistant dean or associate dean or something. We become very good friends, we still are actually. And through her I learned, she basically mentored me in the background, as to how to do this. Not just how to do with my dean, but what faculty affairs really was because she had been doing it. And she introduced me to other people in the area and I went to faculty affairs meetings at the AAMC, which I never would have gone to otherwise, I maybe would not have known about them. So, it was really through our friendship and then going to the faculty affairs meetings that I built a bigger network. I also got, what the ... was doing in this area because we actually were quite ahead of some places... (Dr. Janet 99, Time 2)

Analysis of mentoring by deans and other advanced leaders over time. An examination of this finding across interviews and across Time 1 and Time 2 revealed 10

participants who felt that being mentored by their deans or other advanced leaders was beneficial to their leadership development over time. For example, one participant, in her first interview, appeared somewhat stunned by her dean suggesting mentoring her to another dean in her presence and was hopeful that it would happen. By the time she had her Time 2 interview, this participant had mastered the art of seeking and securing mentors for whatever her needs were. These were her comments:

...I'm one of these people that grazes, like a get a little mentoring here and a little mentoring there depending on the skill set that I need and I would say some of it are people that I've approached at the hospital and the med school at UF where I was... because I needed them for a certain skill, like the CEO of the hospital... was very helpful to me in some ways and the CEO of the group practice was very helpful to me in some ways and the chief finance officer was very helpful to me and then the interim dean was the chair of surgery and he, he loved me because I made him look good so he basically did anything I asked of him like if, like when I needed the letter for the promotion to full professor he was right on that. (Dr. Earlene 96, Time 2)

In her first interview, another participant made a brief comment about relying "...on the dean that hired me, who is now a university president..." In her second interview, she was more descriptive about her mentoring experience. She had this to say:

...I think there were two deans. The dean that recruited me, that made me prepared and successful, helped me to see so that I could get to the ELAM level of thinking. And then there was the dean...the person who was the dean during my ELAM year and she had a very different style than the first dean and just incredibly supportive would and ... and to make sure everything was covered when I was gone, would give me the room I needed to grow and explore, always looking up, you know, making sure I wanted to go to the next level and asking how he could help. He was terrific in every way. Never wanted to hold me back... (Dr. Gail 97, Time 2)

In summary, the women participants spoke about their mentorship experiences with their deans, CEOs, CFOs, Presidents and other advanced leaders who were able to provide direction to them on how to ascend to the next tier of their leadership career. They talked about the support they received, the people they met, the meetings they

attended, and the positions they were offered. An analysis showed the benefits of being mentored over time. Mentors serve many purposes but they primarily act as role models who walk other leaders aspiring for advancement through prior or future leadership actions that support their leadership development which is linked to the self-efficacy source of vicarious experiences.

Mentoring others sub-theme 2. The second subtheme that surfaced was mentoring others. Altogether, 19 participants made 88 comments in every class, 14 by 5 participants in Time 1 and 74 by 19 participants in Time 2. Five participants (Dr. Ellen 96, Dr. Brenda 97, Dr. Evelyn 97, Dr. Freda 99, and Dr. Janet 99) spoke about mentoring others across both times. They discussed mentoring other individuals and groups, their process for deciding who to mentor, and some of the results as well as benefits of mentoring others.

With reference to mentoring, one participant talked about a group at her institution modeled after the ELAM program, a women's group of about 40 participants that met to discuss various issues and concerns that were specific to women. She also talked about mentoring someone who was an ELAM Fellow.

We recently, yesterday actually, had a meeting of our women's group at ... which is also a direct outcome of ELAM - we never had a women's group which was functioning in a professionally useful way, but one of the other ELAM people in my class from here ... got a group of people together so we actually have lunches monthly. And, we have developed a women's standing committee, which looks at professional development, compensation, a lot of other issues relating to women at our place. We also looked at salary discrepancies and things like that. That all came out of ELAM... we have been working with this women's group. I would say we've got about 40 women now involved here at our medical center. It's really pretty good... Then, there is a woman in the current ELAM class who actually was a supervisor of mine 20 years ago, and I ended up being her ELAM mentor. (Dr. Freda 99, Time 1)

A second participant spoke about mentoring her faculty and others throughout the

country, the commitment it took, and what those relationships entailed from her and the mentees to ensure success. She talked about what her process was for deciding who to mentor and gave an example of how she helped a woman achieve the role of associate dean.

... more experience than most chairs get in a lifetime, experience also puts me in a place where I can offer that to other people. I think that's the difference, just time and experience... The answer is yes, I always have. I think there's, you make a choice when you become a chair and the choice is, at least I think if you are going to be affective, the choice is that the faculty an [*sic*] their success matters more than yours, your own individual personal success. And so the mentor relationship is not just you know, gee I enjoy your success, it's I'm absolutely committed to your success. So for my own faculty that's the relationship and we trialed new programs of mentorship. We've trialed developing mentorship in the department, all the things we could do to make sure everybody is successful. And then I have sort of individual mentees all over the country and, who need me for different pieces of their mentorship panel, if you will, which I am happy to do... (Dr. Ellen 96, Time 2)

On this subtheme of mentoring others, a third participant talked about mentoring both genders, her process for identifying potential mentees, some of the results of working with them, and the opportunity she had to mentor on masse.

I believe and I hope I've done it with both women and men but I think I have been . . . over the years I have been fairly aggressive about people in my own office or elsewhere in the institution trying to say to them, to explicitly say to them "You know, I think you're talented. Have you thought about this or that?" You know I know there are four people in graduate school right now that they are there because they have what it takes there, hard work and things like that. But I know that they give me a great deal of credit for them actually being in graduate school. There are certainly people on papers with me who are on papers because they deserve to be but the paper could have been written just as well without them.

There are a couple of people who are developing regional and national reputations on work that we've done together that I think if they had had a different boss or a different mentor along the way, maybe it wouldn't have happened. I could be wrong but I mean I actually . . . I think that I have worked at it, I probably haven't done nearly as well as I would like to but it's something where I think there are individuals who say that they're mentored by me. I know that at my last years at . . ., probably four or five times a year, there were people that would make appointments with me and would come in and say "I'd like you to be my mentor."

You know, I have a real kind of specific process because for my mind that's kind of like someone asking me to be their mother or their aunt and that is not something I can do or want to do and I don't think they want me to do so then I work through a very explicit "what are you looking for in a mentor? What could we do together? What would you bring to the relationship?" that I think helps resolves in a success process. Up here at ...you come ... I think there are a couple of people here who view me as a mentor. I think a couple of my direct reports believe that I'm mentoring them. (Dr. Frances 97, Time 2)

I know that there's a Robert Wood Johnson nursing fellow from ... right now who I am kind of her explicit program within the Ed. Program. She called about a year ago and we went through this process of ... if it was the right fit and what she was looking for, things like that. More than that, I think in the process role, and it's kind of the fun of it, in addition to trying to do the individual I think what I have a unique opportunity to do right now is to almost mentor on a mass scale and it's interesting... (Dr. Frances 97, Time 2)

A fourth participant revealed that mentoring others was also a means of improving herself. She also gave some suggestions for mentoring.

It's hard to say because I think as you continue to do it, you sort of continue to self-improve and can I, I've done a lot more mentoring since I've been in ELAM, but also I mean I think, I had been program director for 12 years before I came to ELAM. So that was doing a ton of mentoring with residents before. I think now I am doing more mentoring of program directors and junior faculty. I am not that much on the front line with the residents, but I am on the front like with the program directors... I think probably making sure that you listen more and shut-up more... I think probably making sure that you listen more and shut-up more. (Dr. Gloria 99, Time 2)

Analysis of mentoring others over time. The analysis across interviews and across times revealed five participants who responded to this finding about mentoring others over time. For instance, the mentoring experience of one participant appeared to focus on giving attention to students who had the potential to make special contributions. In her second interview, she seemed to have expanded her mentoring to helping faculty become successful; and said this about how she had improved her process for dealing with mentees:

I'm probably much, more clear with people, or force them to be much more clear themselves about what it is they expect from me, what it is they think they need so we can focus rather than diverse, come in and chat about anything you want. I also think, in this position, I have the ability to do a lot more in terms of connecting them to networks they might not have scene or offering in the case of the center, financial grants...The ability to have people thinks about what they are doing and to create their own vision and the ability to mentor them and push them along that road... (Dr. Ellen 96, Time 2)

Another example of mentoring came from a second participant. In her first interview, she gave the appearance of being available to help personnel and was mentoring two women to help them “achieve their next set of goals.” She was providing advice and feedback on their progress as well as helping people to problem solve. She appeared to have come to a point where she was “focusing my time and my effort on people that I think will benefit from it” (Dr. Brenda 97, Time 1). In Time 2, she seemed to be mentoring men and women for more strategic purposes. In particular, she was reaching out to a bit older woman about mentoring her for success on the academic track because she would be good for the department.

In summary, the women participants in this study talked about their experience in mentoring others, primarily women. Specifically, they talked about their process for identifying and deciding who to mentor, various types of groups and individuals they mentored within their institutions and across the country, and some of the successes and benefits of mentoring others. Examples of mentoring others over time were presented. Mentoring others presents an opportunity to model one's leadership ability and other skills to help aspiring leaders to learn, grow, and advance their skills. It is an important leadership skill that connects to the self-efficacy source of vicarious experiences.

Research Sub-Question 3: Verbal Persuasion and the Study Participants

Sub-Question 3 explored verbal persuasion, also known as social persuasion, and the leadership development of the study participants. A combination of both times and each class revealed that all 19 of the participants made 140 statements related to this theme with 84 by 17 participants in Time 1 and 56 by 14 participants in Time 2. Essentially, verbal persuasion involves convincing people that they have the ability to succeed at a particular task and that they have the capacity to achieve what they seek (Bandura, 1997). According to Bandura (1997), verbal persuasion can “bolster self-change if the positive appraisal is within realistic bounds” (p. 101). He further posited that people who are verbally persuaded that they possess the capabilities to master given tasks are likely to mobilize greater effort and sustain it. So, to the extent that persuasive boosts in perceived efficacy lead people to try hard enough to succeed, self-affirming beliefs promote leadership development skills and a sense of personal efficacy (Bandura, 1997). The participants shared several descriptions of verbal persuasion in relation to their leadership development and analyses over time. Shown in Table 18, the verbal persuasion explanations formed two main themes in accordance with Bandura’s (1987, 1997) self-efficacy framework: (a) support, and (b) feedback.

Table 18

Percentage of Change across Interview Tiers by the Verbal Persuasion Theme

Verbal Persuasion Theme	All Participants Time 1	All Participants Time 2	Total No. References	Percentage of Change
Support	59	35	94	41%
Feedback	25	21	46	16%
Total	84	56	140	33%

Two subthemes surfaced under the main theme of support as presented in Table 19. The women in this study spoke about the verbal encouragement they received as they pursued their organizational and career goals. They also talked about the benefits of the feedback presented from the assessment tool, peers, staff, and mentors.

Table 19

Top Two Themes for Verbal Persuasion

Themes	Sub Themes
Support	Peer-to-Peer Support Deans and other Advanced Leaders Support
Feedback	No Subthemes

Support. The first theme that emerged under Sub-Question 3 was support. Seventeen of the 19 participants in each class made a combined 94 references to support, 59 from 15 participants in Time 1 and 35 from 12 participants in Time 2. Eleven of the participants (Dr. Brenda 97, Dr. Carolyn 97, Dr. Ellen 96, Dr. Evelyn 97, Dr. Freda 99,

Dr. Gail 97, Dr. Gloria 99, Dr. Irene 99, Dr. Janet 99, Dr. Maggie 96, and Dr. Teresa 99) made multiple comments across both times. The women acknowledged that support is very important to leadership progression and can be extremely stressful even when individuals are committed to their learning and growth. To that end, the women talked about receiving institutional support for their professional goals before and after ELAM, support from faculty and other leaders internal and external to the institution, and support from ELAM peers.

With regards to support, one participant spoke about the institutional sponsorship she received for ELAM which included supporting her goals, academic and leadership development, and promotions post ELAM.

This institution sponsored me to go to ELAM and that sponsorship included the opportunity to move into the position that I currently have. My institution goals for me included to actually make a lateral transfer at the time I participated in the ELAM from a clinical track position to tenure track and to continue to support my academic development and that transfer happened as well as since ELAM I was promoted on tenure track from associate professor to full professor based on academic productivity... And, the other piece of it was to support my education program leadership by the position that I am currently in. I moved in the role of associate dean for academic affairs and then was promoted to the [sic] senior title, ..., and the scope of my responsibilities through, both that promotion and being in this line, position for a number of years, has increased greatly. (Dr. Maggie 96, Time 2)

A second participant talked about gaining strength from the support she received from the faculty and other leaders in addition to the respect she felt throughout the organization. She also spoke about connecting with her ELAM peers and faculty across the country when needed.

One of the things that I think gives me a lot of strength at the moment is that I have a great deal of support from faculty and from the faculty leadership, the department chair, the division head. And so I have the backing of the faculty pretty much and so that gives me respect within the institution... there are times

when I use my national network of contacts through ELAM not only my peers but the faculty that we met... (Dr. Carolyn 97, Time 2)

Delight and astonishment was expressed by a third participant about having so many supportive people in various places that she could talk to and who were willing to be there for her if she called.

I don't know, I think I still would have turned to friends that I know in dean's offices and things, but what a tremendous resource that's just naturally right there. The minute that I talk to them informally, everybody said give us a call, let us do whatever we can to help you deal with this sense of oh my gosh, you know they're there for me (laughs). It's kind of amazing. (Dr. Maggie 96, Time 2)

In summary, the women in this study shared their views on the significance of having support from within their institution and across the country, faculty and friends, ELAM peers, and administrative leaders as they pursued activities and opportunities that enhanced their leadership development and or advanced their careers. The support provided by various constituents to aspiring leaders or those seeking to progress to the next level of their career connects to the self-efficacy source of verbal or social persuasion.

Peer-to-peer support sub-theme 1. This subtheme developed from the 51 total comments of 16 of the 19 participants, 33 in Time 1 from 15 participants and 18 in Time 2 from 9 participants including all classes. Eight of the participants commented in both Time 1 and Time 2 about peer-to-peer support (Dr. Ellen 96, Dr. Maggie 96, Dr. Evelyn 97, Dr. Gail 97, Dr. Freda 99, Dr. Gloria 99, Dr. Irene 99, and Dr. Teresa 99). The participants in this study spoke about their peer-to-peer relationships in regards to staying connected, being vested in each other's success, recommending opportunities, and talking about issues or ideas.

One participant spoke about her network of peers and how they stayed in touch via email and AAMC reunions, and how they stayed abreast of each other's progress. When feasible, they identified and recommended those of their peers who were ready for position change or job advancement.

I think we will probably keep in touch somewhat through the E-mail network that we have in terms of who's moving and moving up. ... we've already as a group discussed the possibility of a reunion of some kind, and I think at the AAMC there will be a good opportunity for us to get together again, at least a number of us will be going to the AAMC this year. And I think left to our own devices we'll figure out a way to reunite. I sort of see us the same way the ... team saw each other, we're very heavily invested in each other's futures and when people advance we're going to all take credit for it... I got a letter from the chair of the search committee of the department of medicine, and I racked my brain to figure out who in ELAM was in medicine and might be ready for a department chair, so I E-mailed those people, I nominated them. Some of them nominated women from their institution, so I was actually able to interface with my search committee here through ELAM contacts, and I think at least one of the fellows is going to apply for that job. (Dr. Harriet 96, Time 1)

When referring to peers, a second participant said that ELUMs were an important support system to have to discuss problems, concerns, ideas or whatever issues she had. She commented about the ease of talking to a particular ELUM and the fact that they had both progressed to deanship.

...So when you run into them [ELUMS] it is important to have them to talk to. There are just issues to ponder or consider the context of those issues and if someone has done ELAM they usually are ready, right there. And that's it. People are right there and you can talk to them and go over what you are doing. And what I said recently when an ELUM called about a position here and I was in the middle of something and we both sort of lapsed into talking about work and suddenly we both burst out laughing because it was so hysterical that years later you know, we were both deans and having this conversation with this language that was so familiar to us. (Dr. Irene 99, Time 1)

Concerning peer-to-peer support, a third participant mentioned the ELAM exercise of pairing up with someone and maintaining communication with that person. She said the benefit of that exercise enabled her to develop a peer relationship such that

they could discuss the pros and cons of any topic including pursuing positions. She also said it was valuable to have someone to mutually “bounce things off of.”

...They paired us up. They said, “Okay whoever you are sitting next to, or pair up with somebody nearby and then call each other a month from now.” I’ve been doing that, ... We’ve actually talked, she was looking at being a chairman and we talked about the pros and cons and I’ve talked her about the faculty affairs and the pro and cons. We’ve both said things to go for ... And that’s – you know throwing it back and forth and to have somebody to bounce it off of it’s sort of like we are going to rate all of these experiences by did you get it or not. Having somebody – and also we’ve talked about time, how are spending your time. I’ve compared notes as to how much e-mail are you spending. Just details and big picture stuff. That one thing to me has really carried the value of ELAM forward besides the general networking which I found is terribly valuable. I think that goal of finding somebody to just touch base about as to how you are coming on your goals was really good. (Dr. Samantha 99, Time 1)

A fourth participant offered her thoughts about peer support from a collegial point of view and talked about having a cooperative group of people that was reciprocal to call upon to discuss various issues and provide support when seeking opportunities.

...in terms of collegial support, opportunity...you know, got a whole network of people that when I have some questions relative to a specific Institution or a specific research or school issue, I’ve got this whole group of people that I know to call and ask about it. The other side of things is it can certainly give me the opportunity to...you know, if individuals...women are coming up here and looking at positions elsewhere for people to plug them into in that regard... (Dr. Mary 96, Time 1)

Analysis of peer-to-peer support over time. An examination of this finding across interviews and across times revealed eight women who talked about how peer-to-peer support had helped them in their leadership development or career advancement over time. For instance, one participant’s comments seemed to display a sense of security in knowing that although she did not contact them [her peers] regularly, just knowing they were there and that she could call them if she needed to was important. “There are times when things come up and I just want to talk and I now know 30 people I

can do that with.” In her second interview, she seemed to have reached out more often to her peers during her career journey and had received some help with her with decision-making as well as encouragement to “do something totally new.” She continued:

That’s all true and then we’ve, since we’ve stayed in touch we kind of continued to support each other in that sort of you go girl way in that we all think that whatever else the other people are doing is important and worthy, and we don’t always get that, even from other people in our own departments in medical schools, you know? There is a woman named (name inaudible) who is the chairman of ... here at ... and I probably would never really know her except for ELAM, and she went through a few years after I did... and now she’s already a full professor, I’m coming up for full professor and she’s been very helpful and supportive. So, you know, we help each other in different ways. (Dr. Freda 99, Time 2)

Another participant, in her first interview seemed astonished at the level of peer support she received as a job candidate. These were her words:

...the head hunter had called several people across the United States and luckily many of those people were my ELAM peers. When they finally got through to me, they said, “Obviously you are one of the top candidates for this job because you have already been referred to us by four individuals at different institutions across the US.” I said, “Really? Who are they?” And, I think three of the four were people I had met at ELAM. (Dr. Teresa 99, Time 1)

In her second interview, she appeared to be appreciative of how her peers continued to put her name out there for different positions since, as an interim dean, she was somewhat in the job market. She said this:

I get a lot of calls from search consultants for positions that my ELAM sisters have given them my name...So, because I am interim dean here I am at least partially kind of out there on the job market, looking at other opportunities and I let people know that I am looking....Both through ELAM and faculty affairs I would say and between those two I get a lot of calls and know about practically every provost position that comes up. (Dr. Teresa 99, Time 2)

In summary, the study participants spoke about peer-to-peer support in relation to asking questions about career opportunities, positional issues, the pros and cons of advancing to a particular leadership position, staying in touch, and keeping abreast of one

another's progress. Examples were provided of peer-to-peer support over time. Peer-to-peer support can be effective and rewarding when preparing for and pursuing career advancement and leadership positions. Peer-to-peer support is consistent with the self-efficacy source of verbal or social persuasion.

Deans and other advanced leaders' support sub-theme 2. Thirteen of the 19 participants made 43 comments, 26 in Time 1 from 11 participants and 17 in Time 2 from 5 participants, about the support they received from their deans and other senior leaders. Three participants commented in both Time 1 and Time 2 (Dr. Maggie 96, Brenda 97, and Dr. Irene 99). The women in this study shared information about the support they received from their administrative leaders, the relationships they developed, and the additional responsibilities they were given.

One participant talked about the relationship she had with her dean and president and how it had gotten even better since ELAM. She spoke about the exceptional support she received from them and the opportunity she had, through an ELAM exercise, to enhance her understanding of what their positions entailed.

We have a very, very supportive dean and actually the president of the university are quite supportive of what I've been doing up until this point. I had good relations with them beforehand which was significantly strengthened because of ELAM... being an ELAM fellow, because of our interim projects, I had to go around and interview a lot of people, and I had to get to know the university really pretty well. I had to meet the CIO, CFO, the operations officers, the legal officers, all these people. So, in the process of doing all this ELAM work, I got to know the dean and president much better and could talk with them about their work much better, and could also see where things were flexible and where they were not. I think that although the dean and the president both would like me to stay and work with them, they recognize the constraints in the context of my clinical work. These are smart people and good people. (Dr. Freda 99, Time 1)

In terms of support, another participant spoke about her dean's willingness to increase her responsibilities and showed genuine interest in helping her pursue and find

the most suitable position, including his position as dean once vacated, by monitoring opportunities as they became available and her interest in them.

...the dean and he has made me a full partner. I mean, there are days when I feel like co-dean because he is consulting with me on all of his issues and all of the matters of the institution, you know. From their perspective, ELAM helped, it sliced differently. Yes, he's wonderful. He really is. I mean I feel so fortunate. I keep telling him that he's a feminist dean. .. He wants very much to make sure that I get where I need to go and it's an interesting dilemma because he wants me to stay through his term and he says he's going to be a one-term dean. He doesn't want to renew after 2003 but that's far enough away that a couple of openings will come and have come that I've been asked to apply for. So, you know, he just stays with me and says, you know is this going to be a good one or is that not going to be a good one ... what can we do to make, to sort of make you as competitive as possible for the dean's post here when I'm finished; how are you feeling about taking that risk if you miss a couple of good ones that come along because you're counting on this one and what if it doesn't happen? I mean, we have this conversation, I don't say a lot, but every three or four months, he's checking in, making sure I'm being challenged and wanting to stay and then saying well, have you thought about what's next? That's actually when the openings happen, you know there are a couple of . . . there are probably three or four deanships open now, but none of them at institutions I'm really... because of the new style of Dean, because he's given me a broader and deeper portfolio of responsibility more and more of this is happening and coming forward. You know, people are bringing . . . I'm seeing the thorny issues more that I did before. (Dr. Gail 97, Time 1)

According to a third participant, her dean asserted his confidence and support by giving her a project and encouraged her to expand it where feasible. She also talked about using the knowledge gained at ELAM to help develop the project.

My dean was pretty well on board, this is where he wanted to go, this kind of thing. He was open to it and he was already encouraging my to take the initiatives they were doing in gender and equity, for example for women, and broaden them to include others, to the extent that the resources could do that. So, it wasn't so much that I convinced him that would be unfair, because he was you know, really already on board. It was more that I gave it direction and form. My dean gave me that project even before I became assistant dean, but it all happened around the sometime. So, ELAM helped me there not just to give my dean the confidence to give me something like that to do, but also because I used a lot of what I learned there, a lot of what I saw work for me in building the program. (Dr. Janet 99, Time 2)

She provided another example of support from her dean wherein he permitted her to develop and staff two new programs. She said he chose her as the person to assume that responsibility.

...when I became associate dean ... the dean allowed me to create two programs also, two new programs and basically recruit two directors. So, I was very happy. This was my dream. This was better than assistant dean faculty affairs, more than I imagined. I now had, they were paying me enough, I now had enough days in the week to do it, and I had great people working for me. I was really here I am this is what I want to do ..., the vice dean of education, who oversaw all of medical education... And that's really what my dean said to me. There is nobody else. I want you to do it if you can find it in your heart to do it. (Dr. Janet 99, Time 2)

Analysis of deans and other advanced leaders' support over time. The across interviews and across times analysis identified three women who made mentions about this finding over time. As an example, one participant seemed to feel good about the relationship she had with her chairman.

...my chairman would be close to a mentor, but it's not quite how we interact. I mean, if I went to him for advice, I could have it and he very much would...you know, he supported me in going to ELAM, without question. He's extremely supportive; I have a very good relationship with him. (Dr. Brenda 97, Time 1)

In her second interview, she appeared to be less concerned about mentoring and more focused on successfully completing task assignments from the associate dean. She said, "I would say that the associate dean for research respects me and I'm the first person he thinks of for important tasks. So, that actually, is more valuable to me than mentoring" (Dr. Brenda 97, Time 2). Her latter statement seemed to infer that the associate dean may have gone beyond mentoring her and had perhaps assumed the role of sponsor, particularly since he called on her for important tasks. It would appear that such important task assignments presented an excellent opportunity to enhance her leadership skills and positioned her for career advancement.

A second participant in her first interview, she seemed very assertive in securing an opportunity to speak with the dean over what she said was a several-hour dinner to discuss matters of mutual importance. Her comments suggested that she had used a similar approach with other senior administrators and had been successful. Since that dinner meeting, Dr. Irene 99 said of her dean, “[they] have always enjoyed a fabulous relationship” inferring that he had been very supportive (Dr. Irene 99, Time 1). In her second interview, she talked about board support. “I was empowered by the board of trustees with a lot of money to make a lot of growth changes, but not, I wouldn’t come in and deconstruct a whole lot those first two years. (Dr. Irene 99, Time 2)

In summary, the women in this study spoke about the support they received from their deans to assume positions, develop programs and become more knowledgeable about what a senior administrative office entailed. The willingness of deans and other senior leaders to increase responsibilities, assign projects, and provide mentorship for upcoming senior leadership positions, speak volumes about their confidence and support for the capacity of progressive leaders to overcome the developmental challenges of leadership and achieve success. These actions of support for the advancement of participants’ leadership skills can be linked to the self-efficacy source of verbal or social persuasion.

Feedback. The second theme that emerged was feedback. Fifteen of the 19 participants from all classes shared a combined 46 comments related to this theme, 25 in Time 1 from 12 participants and 21 in Time 2 from 7 participants. Four participants also made comments across both times (Dr. Brenda 97, Dr. Evelyn 97, Dr. Freda 99, and Dr. Abbey 99). The women revealed information about the feedback they received from

ELAM's leadership and personality evaluations; direct reports, staff, and mentors; their feelings about the feedback, and how they processed it.

One participant talked about her evaluations from peers and former direct reports, the revelations concerning her weaknesses, suggestions for correction, and using that information to do better in her new position.

I think one of the things that was really important was although I knew some of my areas that I had to work on, or weaknesses if you want to call it that, having the analysis by your peers and your direct reports and so forth sort of confirmed those aspects, one of them being the ability to delegate as opposed to just being able to say, "Okay, I'm just going to do it on my own, it's simpler and easier." As opposed to developing the skills in the people who needed to do it in the first place. That has been hammered into me a bit by that. I was lucky in that I was starting a new job right as I took ELAM. I went into the position on Dec. 6 of '98 so I was changing staff, changing positions and able to take some of that, that came in September and take it into the new position and work with a new group. It made it almost easier because I didn't have the old impressions hanging on with me with the same staff I was working with. I was making a clean slate with people, some of whom I had not worked that directly with before. (Dr. Gloria 99, Time 1)

With regard to personality type exercises, a second participant spoke about the value of the feedback she received from Myers-Briggs and the benchmarks.

We did some exercises, personality type exercises, Myers-Briggs and the benchmarks were both very valid. The benchmarks I think was more valuable in a painful way because I had to see how other people see you. There are sometimes things you wish you didn't see. On the other hand, it's highly enlightening, as I don't see myself as a particularly threatening person, but there are people who do see me in that light. Now, I'm not sure I'm going to change myself to be everybody's buddy, but it is interesting to see that, and see how my boss sees me as a threatening person too. (Dr. Freda 99, Time 1)

A third participant stated that she received feedback from ELAM speakers when she inquired about various supervisory issues.

So I spoke with a number of the speakers during our sessions and even after the sessions about what is a good supervisor, what kind of characteristics, how do you foster that, how do you evaluate that, and these have to do around the issues of do you need a supervisor who gets down and dirty, who really is in the trenches with

the workers. How much do you have to be in the trenches, how much do you have to be viewed as supporting and advocating for your staff, and is that ... and if you find someone who is able to advocate for their staff, does that necessarily mean that they are not that part of administration and are they at odds with ... It can be a very delicate balance between supporting staff and supporting the vision of the organization which is a broader concept than individual staff support. So I don't know if I got ... or if it actually worked, but I remember a conversation with one of the speakers who knew all the literature about this and could tell me what the literature said... And then talking with several of the ELAM fellows who I thought were more like me personally and asked them how they handle some of these issues. (Dr. Donna 96, Time 1)

Analysis of feedback over time. An analysis of this result across interviews and both times revealed four women who made mentions about the importance of feedback in relation to their leadership development overtime. For example, one participant talked about the harsh reality of feedback. It seemed to have raised her awareness about the role of being a leader. She said this:

One is feeling as though I was hit-in-the-head by ... with some of the results of the peer commentary about me. And, I had a wildly different view of myself than what was reported to me. And, her basically saying, "You know, you really are almost addicted to your work. You have to have a greater balance in your life. Being addicted to work is not the way to be a leader." Of course I always thought you work harder than anyone else, you are going to be the best. It was a new concept to know, "Wait a minute that stuff really doesn't work at this level." You can't do that. (Dr. Abbey 99, Time 1)

In her second interview, she appeared to be continually improving on a personal as well as professional level. Her acknowledgement that her feedback was painful appeared to show a willingness to accept her truth and work on it. She seemed to have come to a reality that she needed to listen more and that everybody did not share her style of work ethic. These were her comments:

Essentially the feedback that I got had to do with a lot of, not listening to subordinates and expecting them all to be as gung-ho research as I was and be little clones of me and that was not how I thought about myself, but apparently it was the way I came across and I fall back into that now. I catch myself too, in other words that one of my vulnerabilities is expecting that my entire staff be just as happy to stay until eight o'clock and do all this exciting stuff as I am an that

they can organize things as well, like mini clones. I try to get away from the to more of thinking about each person as having strengths and weaknesses and contributing to the whole... So that was a hard lesson for me. I mean everybody is not like a little researcher that wants to do the same thing or that does it in exactly the same way as me or, you know, recognizing those differences in styles as an attribute as opposed to a negative. It was hard for me, it was really a lot of work and I think that was important because I now have a pretty diverse work group that that works much better for recruiting and diversity of subjects within the ... community as opposed to ... where I essentially was only comfortable with little mini researchers... I think the most painful things are probably the ones you know are true... because you can't just discount it... I actually shed a lot of tears after that feedback. I thought oh my god, that's not me. I spent time arguing with myself that it really wasn't me and then I decided that yeah, it must be as painful as it is because it's partly true. And it was, and I really in retrospect think it was and that's another part of ELAM you never get that kind of blunt feedback from anybody... So that was again, very painful, but growing pains are common I suppose. (Dr. Abbey 99, Time 2)

A second participant appeared to have gained an awareness of her strengths and weaknesses in finance and her personality. These were her words:

The financial part. I think it gave me some insight into my own strengths and weaknesses both from doing the Myers Briggs and talking about my personality preferences and really make me see why I do sometimes...why I act sometimes the way I do act...as well as that other exercise that we did that looked at our management styles and leadership qualities. (Dr. Evelyn 97, Time 1)

In her second interview, she appeared to reflect on some of the feedback she received and how revealing it was in terms of some of the strategies she used in her operation.

I remember correctly, it pointed out that I try to be too nice in all things to everybody and in my ... but some of my strategies to deal with that were ... I was almost too harsh. Not that my ... not that the people who work underneath felt that but it was you know, when they said, "Well what would you want to do?" ... I just ... yeah, I think it was very eye-opening in terms of just revealing to me that I didn't have to do a complete turn-around to be ... I could be both compassionate as well as effective. (Dr. Evelyn 97, Time 2)

In summary, the women in this study talked about the feedback they received in the context of leadership as well as project and staff management. They discussed feedback that dealt with ELAM evaluations related to the Myers-Briggs, 360 degree and

benchmark appraisals and their responses to them. They also spoke about feedback they had gotten from ELAM speakers, peers, and direct reports. Feedback fosters the ability to improve leadership performance and further career goals. Adjusting performance depends not only on receiving feedback but also having opportunities to use it. Thus, feedback is a key component of leadership development and connects to the self-efficacy source of verbal persuasion.

Research Sub-Question 4: Physiological States and the Study Participants

Sub-Question 4 focused on examining the participants' responses relating to physiological states and their leadership development. Bandura (1997) described this source of self-efficacy as assessing how confident an individual feels by interpreting their own emotional and physical state as they consider an action. According to Bandura (1997), reducing stress levels and negative emotional inclinations can modify efficacy beliefs and thus, improve performance. Based on Bandura's (1997) description of physiological states, five participants from Time 1 (Dr. Brenda 97, Dr. Donna 96, Dr. Evelyn 97, Dr. Gail 97, and Dr. Maggie 96), made one statement each about overcoming their emotional state in various situations. Only the classes of 1996 and 1997 were represented in their comments.

For this question, there were no revelations of themes and subthemes over time as only the previously mentioned participants from Time 1 made statements about this source of self-efficacy. This is not surprising as Bandura (1997) stated that this is the least effective of the four sources. Moreover, given that the mentions were few, which could be attributed to the interview protocol not having a question that might elicit a related response, the researcher decided that the source title (physiological states) was

sufficiently descriptive to capture the essence of the participants' comments; thereby, eliminating the need to create a theme. The explanation offered for the scant responses is reasonable as this was a secondary study using data that focused on a different topic from a previous research project. Also, there were no relevant statements made from Time 2. Although the participants and their responses were few, their statements are presented here in response to the research question.

In reference to anxiety, one participant talked about a potentially harmful personnel situation that brought all of her ELAM knowledge to bear in that moment.

And he told me that he would ruin me and he would put what I did out on the news and this and this and this and it was such an incredible moment and I look at it and I stood back and said "isn't this interesting". What does this say about him? I was able to do much more of a Zen thing instead of saying "What did I do? Oh my gosh, what am I going to do? ... How am I going to get out of this mess?" You know, not cover it up in terms of "Cover-it-up" . . . but cover up the anxiety so that we can get to problem solving, you know?... I quickly got to a very clinical perspective with him where this guy has a problem and he's acting like an abused victim. You know, his response is not in proportion to the stimulus that was put out. And it amazed me. I think maybe it's a function of aging, I think it's a function of experience and I think ELAM had to do a lot with it because I saw the . . . just with all of this kind of experience coming together in one moment. (Dr. Gail 97, Time 1)

A second participant talked about avoiding recognition because of her anxiety about authority figures and being visible. She stated that she confronted her apprehension and acknowledged a behavioral change.

... I've known him for years, but I have this real kind of anxiety about authority figures and my modus operandi for years has been to, you know, again, work very hard and in that sense seek recognition but through very hard work, not through networking, not through getting myself in front of their nose and increasing my visibility... not doing that, that's been my past. So I called up and got an appointment with this man, now whether or not other people would realize what a change that is, I don't know. But it's a definite change, no doubt about it. I also took the initiative ... there's a diversity task force that's being formed on campus and I see that as an area that potentially could be very important, just again because of the visibility issue, and I called and said that I would like to be on it if

that was appropriate, and was welcomed and now have been included in that. So those are certainly behavioral changes that if anybody took time to notice they would notice them, if that makes any sense. Things I would not have done before. (Dr. Maggie 96, Time 1)

In relation to being nervous, a third participant spoke about being timid as to the responsibility of chairing committees. She overcame her anxiety and received encouraging comments after chairing a committee.

Before ELAM, I was very hesitant to do . . . to chair. It just looked like a tremendous responsibility. After ELAM, I was extremely nervous the first time I took over the chair of the committee but I got a lot of positive feedback from the people on the committee afterwards. I realized that I could do it and it was the skills of listening that were emphasized at ELAM and I don't know if I would really call that leadership but it is a way to get 16 people to focus on a task for a day and a half in a manner that moves forward efficiently but at the same time everyone feels like they've had a chance to talk... (Dr. Brenda 97, Time 1)

Having become much stronger emotionally over time, a fourth participant talked about how, since ELAM, she had overcome feelings of inadequacy and anguish about her leadership ability, and developed a wider viewpoint.

Last year I would have just cried about it and said "Oh my god, I'm a total failure, and quit." I probably would have done that. But this year, although I had those feelings and I was distressed and I had notions of just quitting and going into private practice ... I thought that's not really what I want, that's not really where my unique skills lie. I could do that, I could be happy, but I need to address these issues and address them in a fair way and the staff will understand. I mean I know the staff like me and they think I'm doing a reasonable job, so I can just build on that. So I think it is beneficial, it gives me a broader perspective and I don't think as emotionally...quite as emotionally as I did before. (Dr. Donna 96, Time 1)

A fifth participant said she experienced less panic and anxiety than before ELAM. She also said she handled conflict better.

Oh well, I'm pretty good at...I mean I think that I feel less uncomfortable. One of my Achilles heels is... has to do with trying to avoid conflict but I think I've become more directive or I've been approaching it without as much fear and trepidation as I had previously. (Dr. Evelyn 97, Time 1)

In summary, the participants in this study disclosed information about their feelings and emotions in reference to leadership, conflict, chairing committees, problem-solving, and authority figures and what they did to surmount them. As in other modes of influence, the information conveyed by physiological or emotional states can affect leadership performance (Bandura, 1997). However, the extent to which performance is judged is based upon how the information is perceived and interpreted; thus, leadership development connects to the self-efficacy source of physiological or emotional states.

Research Sub-Question 5: The Study Participants' Other Experiences that Might Inform Self-Efficacy in Relation to the Leadership Development of Women in Academic Medicine

Sub-Question 5 explored other experiences shared by the study participants that might further inform self-efficacy relative to the leadership development of women in academic medicine. Overall, this sub question generated 73 comments with 28 from Time 1 and 45 from Time 2. The statements focused on experiences that were not directly related to the four sources of self-efficacy but may have some circuitous correlation to self-efficacy theory. As illustrated in Table 19, three themes were revealed in the context of leadership development and career advancement: (a) doing things differently, (b) resilience, and (c) sponsorship. There were no additional potential themes or subthemes that surfaced in this category during the analysis.

Table 20

Percentage of Change across Interview Times by the Other Experiences Theme

Other Experiences Theme	All Participants Time 1	All Participants Time 2	Total Number of References	Percentage of Change
Doing Things Differently	21	27	48	29%
Resilience	2	8	10	400%
Sponsorship	5	10	15	200%
Total	28	45	73	61%

Doing things differently. The first theme that surfaced was doing things differently. Altogether, 13 of the 19 participants from all classes made a total of 48 comments, 21 from 9 participants in Time 1 and 27 from 11 participants in Time 2. Seven of the study participants made comments in both Time 1 and Time 2 (Dr. Earlene 96, Dr. Maggie 96, Dr. Brenda 97, Dr. Gloria 99, Dr. Irene 99, Dr. Teresa 99, and Dr. Samantha 99). The women in this study talked about embracing change to become better leaders, communicators, managers, administrators, and team builders.

With respect to doing things differently, one participant said she had become less defensive, a better listener and refrained from forcing her ideas on the group entirely and sought to include them more.

...I have become less defensive about some things, which I think helps to build a better leader. I just had an interaction with a program director the other day who I was trying to give some constructive feedback to and one of the things was from the information that I was getting that I was trying to give him feedback about was that he gets very defensive about things so that people are afraid to say things to him...as I was doing this he was getting defensive about it and I thought to myself, you know, several years ago I was in his position, I would have been

doing the same thing...And being able to step back and not personalize things like that, I think I have gotten better at it...I think the big one was, I was always a good listener, but I learned a little bit more to not push my own ideas sometimes as much as I would like to and to step back a little bit from my own personal goals and to incorporate some of the groups. (Dr. Gloria 99, Time 2)

On the subject of changing things, a second participant spoke about how she had begun to make some adjustments including managing personnel and looking at things differently.

And so, from that I have begun significantly, and it's wonderful, to alter some things... everything about being able to still like myself as somebody who is now much more...clear about deadlines and clear about when I am done talking to somebody and to just make sure that that's everybody and to make sure that that's equitable, I think that that's important. I got better at recruiting people then I was in the beginning so this place got better making it easier...you could be surrounded in your upper management team by people who are amazing task masters, who are completely competent and wonderful, but if they drain you in any kind of way, if there style is such that you go nuts, no matter how great everyone else thinks they are, no matter what, if the buck stops at your door and you have to do your job, they need to go, not you. And I'm saying that because for the longest time, being who I am... if I have a situation like that, wherever it is that I am meeting with somebody, or it's somebody who is working with me or for me, I often used to spend inordinate amounts of time trying to make that relationship better thinking the problem was me. That if I would just look at the situation differently I would see that they were truly an intelligent person... Again, what's different about me is that most of the time I'm not perfect, never will be, but most of the time now when I make a mistake or come to realize something now I don't spend a lot of time raking myself over for not knowing sooner or figuring it out or doing whatever. (Dr. Irene 99, Time 2)

In her example of leading a task force, a third participant talked about doing things differently like being intentional when working on projects, being inclusive, listening to others' opinions, and responding to people's comments. She also spoke about how she worked to change her image as a leader.

There were methods to work on how you could be a leader.... My dean also, he noticed that I was trying to; he could notice in my work that I was trying to do things differently.... So when I started to take longer to do things because I felt I had to listen more I had to let it go a little longer because even though I was ready other people weren't ready and I purposely slowed myself down in order to bring

people along when I was doing this big sort of thing that was a change he was getting frustrated, why wasn't I just moving? He was used to me just doing it... I would say that whole process I did differently than I would have ever lead a task force before because I just decided that I was going to do it differently and because it was a change process and I had gone through the change course I knew that this was critical and we consulted and I sent out emails and I really took, you know, and I concentrated on listening to people so I would, I would get comments on drafts that we had from people I didn't even know all over the faculty and I answered all of them and I compiled all of them and I brought them back to the task force... it was really because what I learned at ELAM and these other courses and my studying and knowing about myself and what my weaknesses were and I thought this was my chance to change the way I do things and change my image... (Dr. Janet 99, Time 2)

Analysis of doing things differently over time. An examination of this finding, across interviews and across times, revealed seven participants who talked about doing things differently over time as relates to their leadership development. For instance, for one participant, management of her time with people, seemed to be the focus of change. She previously thought of "time as something that was free." She came to realize that some people were not using the information or advice she had taken the time to give them. So, these were her remarks about doing things differently:

...now I've identified the people that will come and talk to me and pay attention to what I say and then go out and use the Information, those people I'm willing to give more time to and talk to again... I'm withdrawing from where I don't see my investment of time with a yield...I've also now realized people that come to me and ask me to do things are doing it because my name carries some weight, it has some credibility... and I realize that that's a valuable commodity now too. So my time and my involvement, if I'm involved with people who figure it's important... (Dr. Brenda 97, Time 1)

In her second interview, she had moved to another university but seemed also to have matured in the sense that she understood how what she was doing fit into a larger institutional perspective and how to make changes within it. She said this:

...five years ago...I would say that then I was still too much of a baby. I was an associate professor, I wasn't a full professor and I was still just sort of focused on my lab and now you know, as you get older, part of leadership is looking beyond

your immediate needs to see how you can make the environment around you better. (Dr. Brenda 97, Time 2)

In another example, a participant, in her first interview, spoke about the information she received from an ELAM instructor who did a session on strategies for change. This is what she said about doing things differently:

I have really employed advice he [ELAM instructor] gave out there in a major way and it's been incredibly helpful...one good thing is to find, I think he calls it, champion in the audience and to talk that person ahead of time – somebody who will speak on your behalf from the audience and I go around and talk to departments and have meetings with junior faculty and senior faculty to present these new ideas. I always try to do that – to find a champion that I meet with before the meeting. Coming up with a slogan – looking at change of a campaign – all of those kind of things I pulled out of his work. It has just been wonderful. (Dr. Teresa 99, Time 1)

Her second interview showed that she, like Dr. Brenda 97, appeared to have matured further since her first interview; and seemed to continue build on the changes she had already made. This is how she described what she did differently:

...one of the jobs I was given this year was to write a job description for the dean, because there hadn't been a dean before. There was a dean of vice presidents and so we were splitting the roles and so one of the first things that I did was I needed to write, the president asked me to come up with a job description and the way that I did that was so different then the way I would have done it six years ago because what I did was, I walked into faculty forum, those are our elected faculty representatives like our faculty senate, and I walked in with a blank overhead and a pen and I said what do you think the dean should be doing and I took notes on the overhead blank. (Dr. Teresa 99, Time 2)

Dr. Brenda 97 and Dr. Teresa 99 revealed some of the changes they made over time to further their development as leaders. Their examples are indicative of the comments the other responding participants shared in reference to the various changes they made over time to enhance their leadership abilities as well.

In summary, the women in this study spoke about doing things differently, since ELAM, from the perspective of advancing their leadership skills. In particular, they

talked about changing how they viewed themselves and responded to others in addition to changing how they behaved as leaders in their various areas of challenge. These women acknowledged the need for change and took the action necessary to create change. Doing things differently was the second theme under Sub question 5 related to other experiences that might inform self-efficacy theory.

Resilience. Resilience was the second theme that surfaced under Sub question 5 with 5 participants making a total of 10 comments, 2 in Time 1 from 1 participant and 8 in Time 2 from 4 participants. Dr. Irene 99 was the sole participant who made a comment in both times. Because life is fraught with disappointments, adversities, failures, setbacks, frustrations, and inequities, it takes a resilient sense of personal efficacy to supersede the obstacles to significant accomplishments (Bandura, 1997). This perception of efficacy enables rapid recovery from difficulties and restores self-assurance quickly, prohibiting self-doubt from setting in. References to resilience were revealed in each class. In particular, they talked about surviving challenges, being motivated, and reflecting on previous situations that required overcoming obstacles.

Relating to resilience, one participant shared what she learned from ELAM and what it took to survive the impediments to her success.

I came away with from ELAM and that is not to constrain your search . . . not to constrain your self-definition; to rely on sort of the resilience factor in the networking... I will say that some of the things that I take away from the ELAM experiences is a deeper understanding and a commitment to understanding the influences of patriarchy and power and the resilience you need to stay in the game against those very negative influences... The other thing I think, is it has given me a sense of the importance of patience and resilience as a whole enterprise and reflection. (Dr. Gail 97, Time 2)

A second participant shared how she endured some of the challenges inherent in her position and what motivated her.

I had to be relatively self-sufficient during a time when most people in my position with my smarts would have someone mentoring them into oblivion, and I didn't have that, but an e-mail was very supportive. There was that interim crisis period where I didn't have much time to think... I think my experience at ELAM – notice how calm I am telling you this. It's a drag and a lot of work but I don't, I'm not slammed from a personal perspective. I...completely in terms of the professional organization and understand that in the end, as exhausted as I am, it's going to be a stronger and better organization once we are all reset. (Dr. Irene 99, Time 2)

“Rough moments” was how a third participant described her transition to another position. She talked about the process being slow and the advice she received.

There were some rough moments. I think usually it doesn't work out so good, I think we are very civilized, the dean, this person, and myself actually have a very good relationship, we like each other as people, nobody wanted anyone to get hurt and I think we did it basically nicely, honestly, nicely and slowly, and in a way where a lot of people got a lot of feedback along the way... (Dr. Janet 99, Time 2)

A fourth participant talked about what she did to survive the challenges of her career and who she turned to for support.

I'm reporting on a real challenge that I can start now to see some options for, and without these folks to call and say, oh my gosh this feels really awful, and people who know how isolating it is, and also normalize it and say this happens in everybody's career, life isn't all a bed of roses, and here are some things that you can do to survive it, to protect yourself, and to plan for next steps. And the group that really I turned to was the ELAM group. (Dr. Maggie 96, Time 2)

Analysis of resilience over time. An examination of the interviews across times and across interviews revealed one participant who commented on this finding of resilience over time. One participant appeared to be a prime example of what being resilient meant. She shared these words about how she survived a major ordeal at her institution:

I had to be relatively self-sufficient during a time when most people in my position with my smarts would have someone mentoring them into oblivion, and I didn't have that, but an e-mail was very supportive. There was that interim crisis period where I didn't have much time to think...I think my experience at ELAM – notice how calm I am telling you this. It's a drag and a lot of work but I don't, I'm

not slammed from a personal perspective. I ... completely in terms of the professional organization and understand that in the end, as exhausted as I am, it's going to be a stronger and better organization once we are all reset. (Dr. Irene 99, Time 1)

The reverse would seem to be true in her second interview. Her comments gave the appearance of one who had been through many difficulties professionally but had emerged a stronger and more resilient professional because of it. Consistent with the conceptions of Sutcliffe and Vogus (2003), her remarks seemed reminiscent of what happened years prior; and having recovered, she decided to accept a position that could benefit from her knowledge, skills and experience.

...One of the biggest decisions that I made after ELAM was that I would never be a ..., so this is all so much fun (laughs). So, it's true, I would have told you that in a heartbeat, for very clear reason, but, at any rate, after several weeks of consideration I decided that ... at the ... would take every skill set that I had developed over time, I had been in government for several years in the early nineties, I had lived through a bankruptcy, municipal strikes, knew academia very well, and certainly how to conduct myself in a boardroom and I felt that this was a nice kind of culmination of that talent so I took that position in the summer of ... and really still within that year, they moved to get rid of the interim title faster than I was ready to...(Dr. Irene 99, Time 2)

In summary, the participants in this study shared information on how they dealt with the challenges of leadership and the resilience it took to surmount the many obstacles they encountered. They talked about utilizing the lessons of past experiences, seeking support from ELUMs, having difficult moments, remaining calm and staying motivated. Resilience was another theme that materialized under Sub question 5 relative to other experiences that might inform self-efficacy theory.

Sponsorship. Sponsorship is the third theme that emerged under Sub-Question 5. There were 6 of 19 participants who alluded to sponsorship a combined 15 times, 5 times from 3 participants in Time1 and 10 times from 3 participants in Time 2. Each of the

classes was represented even though the number of participants responding was few. Principally, they talked about being sponsored by the dean for a senior administrative position, being promoted for a TV spot, being asked by the dean to assume a specific position, and feeling the need to give back because of the investment made in them and feeling supported.

One participant talked about her dean and his advocacy for her to assume his position when he retired. She mentioned how he stayed in touch with her every three or four months to talk about her interest in opportunities that were available.

Yes, he's wonderful. He really is. I mean I feel so fortunate ... what can we do to make, to sort of make you as competitive as possible for the dean's post here when I'm finished; how are you feeling about taking that risk if you miss a couple of good ones that come along because you're counting on this one and what if it doesn't happen? I mean, we have this conversation, I don't say a lot, but every three or four months, he's checking in, making sure I'm being challenged and wanting to stay and then saying well, have you thought about what's next? That's actually when the openings happen, you know there are a couple of . . . there are probably three or four deanships open now, but none of them at institutions I'm really interested in. (Dr. Gail 97, Time 1)

A second participant shared how she assumed a position on TV because someone she knew got another position and asked if she was interested. She said he had been asking her about the position for two years.

...my colleague in pediatrics, is a guy by the name of Carter Johnston and he has been doing this TV spot probably for about ten years and then he got elected to be president of the American Academy of Pediatrics and he couldn't do it so he asked me now probably over two years ago whether I'd like to do it instead of him and I said "yeah, sure. I would love to do it." (Dr. Evelyn 97, Time 2)

When asked about a position in medical education, a third participant said she initially declined. Over time, she said she accepted the position after the dean appealed to her and said there was nobody else to do it. She stated that it was her way of giving back because of the investment that was made in her and the support she received.

...The dean kept asking me every six months to a year if I was interested, and I really wasn't because for me it was jumping ship to a whole other area when I was building something close to my heart, which was working well, there was no reason for me to move. Not only that, I felt I didn't have credibility in medical education. This was my area that was not my area, and on and on. Eventually he came to me and said what if I merged it all. What if you could keep, and I didn't want to let go of what I had just started, it was still fairly new and I felt it needed me. So anyway, but the years passed, two and a half years or so, and eventually to make a long story short, we restructured everything so that professional affairs is now together with medical education and that's why it's called academic affairs. So now I oversee the whole thing... And that's really what my dean said to me. There is nobody else. I want you to do it if you can find it in your heart to do it... the dean has people he knows he can rely on. I know I can rely on these people, because if you invest in them they are going to invest back... I think also if an institution invests in you like mine has in me you do feel you have to give back... It's a give and take and I think life is like that. If someone does for you, you are a little more willing to for them, especially if you know you can rely on them in the future. I know that if I have difficulty I know that I can go to my dean. I can take something on that's harder and if I have trouble he will help me, I am not in this alone. And that's how I feel with the other ELAM fellows, we have actually a group and our dean supports us. (Dr. Janet 99, Time 2)

In summary, the participants in this study talked about sponsorship from the perspective of leadership development and career advancement. Specifically, the women spoke about the advocacy and support they received from the deans and others for specific positions; and the belief they had in their ability to do the job. They expressed gratitude for the investment that was made in them and an overall commitment to give back. An analysis over time was not conducted as the data did not reveal comments related to sponsorship that were parallel to both Time 1 and Time 2. The sponsorship theme and participants' related comments were presented here in response to Sub question 5 on other experiences that might expand or suggest modifications to the theory of self-efficacy.

Chapter Summary

This chapter presented the data collected from the interviews of the study participants. The chapter began by profiling the women in terms of their employment status and activities at the times of their participation in their Time 1 and Time 2 interviews. The chapter then presented findings from the interviews relating to Bandura's (1986, 1997) self-efficacy frame that resulted in 11 themes and 15 subthemes. The results were also presented in terms of quoted passages from the interviews that provided illustrations of the experiences and thoughts of the women relative to the four sources of self-efficacy and other experiences that might inform self-efficacy theory either through expansion or modification. Analyses were presented to illustrate the sub themes over time. Finally, the chapter findings were presented through a gendered lens, via quoted excerpts from participants in the study.

Chapter 5: INTERPRETATIONS, CONCLUSIONS, AND RECOMMENDATIONS

This chapter summarizes and interprets the results of the data that explored the connection between self-efficacy and leadership development over a multi-year period among women in academic medicine following their participation in the Hedwig van Ameringen Executive Leadership in Academic Medicine® (ELAM) Program for Women. This chapter begins by restating the purpose and significance of the study and information about population and sample. Next, the chapter presents findings for each of the research questions, summary of themes, findings related to the literature, discussion of major findings, proposed self-efficacy leadership development model, practical implications, critique of the study, and recommendations for future research. The chapter concludes with a summary.

Purpose and Significance of the Study

The purpose of this study was to explore the connection between self-efficacy and leadership development over a multi-year period among women in academic medicine following their participation in a specialized leadership development program. The purpose was addressed by analyzing secondary interview data from alumnae of the Hedwig van Ameringen Executive Leadership in Academic Medicine® (ELAM) Program for Women, using a content analysis research design based on a constructivist paradigm. The problem of practice addressed by this study was that despite the fact that women have reached parity in entering and graduating from medical schools (AAMC, 2014), the percentage of women who advance to leadership positions is small. The research problem addressed in this study is that the existing literature is deficient in studies that

focus on the exploration of self-efficacy and how it influences the leadership development over time, with no studies of women in academic medicine. Using Bandura's (1997) self-efficacy theory, this qualitative study was based on the thesis that Bandura's four sources of self-efficacy (performance accomplishments, vicarious experiences, verbal persuasions, and physiological states) are determinants of success over time for ELAM alumnae who achieve leadership positions in academic medicine.

Population and Sample Strategy

The population for this study was senior women academics in U.S. medical schools. The women in this study were all in the medical field practicing and teaching in the U.S. within academic medical institutions. All held the terminal degree of MD, DDS, PhD, or both. All were at the associate or full professor rank at the time of their first interview in this study. As the study sought to focus on women interested in leadership and their own leadership advancement within academic medicine, the study identified a leadership development program that supported this process. Thus, women who chose to participate in the ELAM Program were identifying their interest in their own leadership development and expressing aspirations for leadership advancement.

All the women in the study were participants of the Hedwig van Ameringen Executive Leadership in Academic Medicine® (ELAM) Program for Women. These women participated in multiple interviews over time with targeted responses about various aspects of leadership development. A previous research project undertaken by ELAM collected the interviews. (See Chapter 3 for details on the previous research project and interview collection.) Participants had autonomy and discretion to freely discuss or share experiences about their skills and behaviors, as well as information about

their ELAM experiences as these related to leadership. Interviews were conducted in three classes (i.e., 1996, 1997, and 1998) with multiple interviews conducted at discrete times; the times used in this study were: Time 1= 0 to 13 months and Time 2 = on an average 66 months or 5.5 years after completion of the ELAM Program.

From a pool of available interviews, interviews were scored as high, medium, and low for their discussion of the four sources of self-efficacy. Those interviewees who ranked in the high and medium categories on these dimensions were chosen for the study (n=19). Each woman in the sample for this study had a unique backgrounds and career journeys within academic medicine. (Table 11 in Chapter 4 provides key information on each study participant.) As the interview transcripts came to the researcher with key identification redacted, it was not possible to pinpoint exact titles and duties from any kind of a matching curriculum vita. Employment duties and responsibilities were noted informally by the women in their interviews and thus, may not have completely documented all titles or leadership duties; to the extent possible, the researcher read across times to identify titles and leadership responsibilities connected to a particular woman. The information was most often gleaned from Time 2 responses to questions that asked for updates or recaps since completing ELAM, and other information relating to accomplishments they achieved along their career journeys.

Findings for the Research Questions

This study revealed 11 central areas of significance (skill development, decision-making, goal setting, networking, modeling, mentoring, support, feedback, doing things differently, resilience, and sponsorship) to answer the main research question and its five operational questions. Based on analysis of these 11 themes, the study determined 15

findings were the most described skills and behaviors of self-efficacy and leadership development used by the women as they became involved with leadership roles after their participation in the ELAM Program (Table 21). The 15 resulted since five themes (skill development, networking, modeling, mentorship, and support) appeared with sufficient robustness such that two or more subthemes were identified within each area. Despite the fact that the remaining six themes (decision-making, goal setting, feedback, doing things differently, resilience, and sponsorship) did not deliver subthemes, the data extracts were sufficient to support their existence and thus, their relevance to this study.

From a practical perspective, while the findings of this study were generated from 19 study participants, they could help other aspiring women leaders in academic medicine and women academics in general as the themes that emerged included information that is common to leadership development. Women in academic medicine can advance their leadership development by developing their self-efficacy focusing on the 15 sources of self-efficacy. Also, leadership development programs may benefit by broadening their curriculum in these areas. The extent to which the themes answer the study's research questions is discussed in the next section.

Summary of Themes

This study revealed 15 central themes and subthemes to answer the main research question and its five operational questions. According to Boyatzis (1998), "themes are recurrent, unifying concepts about the subject of inquiry," (p.1760). The analytical framework focused on the participants' perceived self-efficacy and their leadership development over time. The study participants were 19 ELAM alumnae who were interested in leadership and their leadership advancement within academic medicine.

These women were chosen to provide the responses to form the themes that emerged to answer the research questions. Using Bandura's (1997) four sources of self-efficacy (performance accomplishments, vicarious experiences, verbal or social persuasion, and

Table 21

Research Questions and Findings

No.	Research Questions	Findings
1	How do performance accomplishments contribute to women's leadership development over time?	<p>Skill Development:</p> <ul style="list-style-type: none"> • Developing skills in negotiation • Developing skills in delegation • Developing skills in budgeting and finance • Developing skills in communication • Developing political savvy • Enhancing general leadership skills <p>Decision Making Goal Setting/Strategies for Change</p>
2	How do vicarious experiences contribute to women's leadership development over time?	<p>Networking</p> <ul style="list-style-type: none"> • Internal Networking • External Networking • Establishing Friends through Networking <p>Modeling</p> <ul style="list-style-type: none"> • Performance Similarity Modeling • Diversified Modeling <p>Mentoring</p> <ul style="list-style-type: none"> • Mentorship from deans and other advanced leaders • Mentoring Others
3	How do verbal or social persuasions contribute to women's leadership development over time?	<p>Support</p> <ul style="list-style-type: none"> • Peer-to-Peer Support • Support from Deans and other advance leaders <p>Feedback</p>
4	How do physiological states contribute to women's leadership development over time?	No themes or subthemes were identified
5	How do the experiences of these women extend or suggest	The identified themes were: Doing Things Differently

modifications in Bandura's (1997) self-efficacy theory?	Resilience Sponsorship
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physiological states), the study facilitated a comparative analysis of responding ELAM participants' individual and shared experiences pertaining to leadership development over time; thereby, enabling the researcher to identify areas of validation or contradiction in the interview data.

The themes were illuminating in that they considered the situational context of the statements made, which revealed a range of experiences among participants related to their self-efficacy and leadership development using Bandura's four sources of self-efficacy. Three additional themes emerged to elucidate other experiences potentially relevant to self-efficacy for further exploration, particularly within this population of women in a male-dominated field. What follows is a summary of those themes regarding the research sub questions and their relatedness to the ELAM participants' responses. In the next section, a detailed discussion of the themes related to each research sub question will be presented in the discussion of findings in relation to the literature.

Sub-Question 1 asked, "How do *performance accomplishments* contribute to women's leadership development over time?" As discussed in Chapter 4, there were three sources of self-efficacy, as reported by Bandura (1997) that answered this question: *skill development*, *decision-making*, and *goal setting*. Collectively, there were 470 mentions concerning the acquisition of knowledge and growth in abilities from all 19 participants. This validates Bandura's (1977, 1986, 1997) assertion that self-efficacious individuals regard ability as an "acquirable skill that can be increased by gaining knowledge and perfecting competencies" (p. 118) and that this is the greatest source of

self-efficacy (Bandura, 1997). This study affirms his statement by having the largest number of mentions in performance accomplishments above the other sources. The first theme was *skill development* which encompassed six skill areas (negotiation, delegation, budget and finance, communication, political savvy and general leadership enhancement). Participants collectively identified these as essential to their leadership development and career advancement over time. The second theme was *decision-making* which participants recognized as critical to their leader success and the advancement of their organizations. The third theme was *goal setting* which participants determined was an important role for them as leaders and essential to their positional advancement and moving their various departments or organizations forward.

Across participants and time, the data suggested that for some, their ELAM experience provided new knowledge and skills that they would continue to improve and expand upon as situations arose. For others who were more experienced, it was an opportunity to acquire new ideas or different perspectives on how to deal with specific issues and enhance or add to the knowledge and skills they already had. These themes or findings agree with the literature presented in Chapter 2 as well as a post analysis literature review conducted specifically towards these themes (Ahearn et al., 2004; Bandura, 1997; Blanchard, 2006; Browne & Keeley, 2007; Dubrin, 2012; Helitzer et al., 2014; McKay & McKay, 2010; and Russell, 2010). An in-depth discussion of the themes related to this research sub question will be presented in the discussion of findings in relation to the literature.

Sub-Question 2 asked, “How do *vicarious experiences* contribute to women’s leadership development over time?” There were three themes that answered this question:

networking, modeling and mentoring. With 316 mentions, the combined 19 participants in this study substantiated Bandura's (1997) position that "multilinked relationships may convey more information and mobilize stronger social influences that produce beneficial results to enhance self-efficacy and instill positive outcome expectations" (p. 519). The *networking* theme was supported by three subthemes: *internal networking, external networking, and establishing friendships through networking*. As discussed in Chapter 4, altogether, the women's expressions illustrated the mutual benefits derived from the relationships they encountered or developed through internal and external networking, and or the friendships they built. The data showed that these connective relationships allowed for the furtherance of their career and the advancement of their positional and organizational objectives.

The second theme under vicarious experiences was *modeling* which included two subthemes, *performance similarity modeling* and *diversified modeling*. The participants' comments demonstrated the advantages they gained from interacting with peers and colleagues whose circumstances or positions were similar to their own, as well as having the opportunity to engage with women who were of diverse stature, some ending in lifelong relationships. All of these interactions appeared to inspire stronger belief in participants' capabilities as leaders and an aspiration for greater accomplishments going forward in their personal lives and their professional careers.

The third theme under vicarious experiences was *mentoring* which was supported by two subthemes: *mentorship from deans and other advanced leaders* and *mentoring others*. The participants' comments revealed the learning opportunities they experienced from veteran leaders and the behavior they modeled in mentoring others, both of which

were viewed as essential to one's success as a leader. The data on vicarious experiences as a source of self-efficacy suggested that across participants and time, the ELAM experience enabled the growth and advancement of their leadership capacity, created positional and career opportunities, and extended knowledge and support to other aspiring leaders. The themes of networking, modeling, and mentoring validated Bandura's (1997) self-efficacy source of vicarious experiences for this population of women and found support in the literature as noted in Chapter 2 and in the literature searched after the data analysis (Bandura, 1997; Bartol & Zhang, 2007; Clarry, 2007; Day, 2001; Grayson, 2014; Heerman, 2014; Ibarra & Hunter, 2007; Jeffries, 2013; and Katen, 2012). A detailed discussion of the themes related to this research sub question will be offered in the discussion of findings in the context of the literature.

Sub-Question 3 asked, "How do *social persuasions* contribute to women's leadership development over time?" Bandura's (1997) two sources of self-efficacy related to social persuasions answered this question: *support* and *feedback*. Bandura (1997) proposed that verbal or social persuasion can "bolster self-change if the positive appraisal is within realistic bounds," (p. 101)" and that, to some extent, "persuasive boosts in perceived efficacy lead people to try hard enough to succeed, self-affirming beliefs promote development of skills and a sense of personal efficacy" (p. 101). In combination, all 19 participants responded to this question with 140 mentions. The first source of self-efficacy, support, included two subthemes: *peer-to-peer support* and *deans and other advanced leaders' support*. Collectively, the participants' comments acknowledged that the challenges of leadership were stressful and that having support from peers, institutional and other advanced leaders internal and external to their work

environment inspired confidence in their pursuit of goals and objectives. The second theme was feedback, with no subthemes. In keeping with Bandura's idea on appraisal, the women's statements suggested that the feedback they received from ELAM and various other constituents encouraged introspection and fostered the desire to improve their leadership performance and further their career goals.

Both the support and feedback themes revealed experiences across participants and over time that enhanced their personalities, helped in furthering their development as leaders, and raised awareness concerning their role as leaders. These findings were supported by the literature presented in Chapter 2 and further research post analysis (Bandura, 1997; Ensher et al., 2001; Harris, 2013; Kram & Isabella, (1985); Marcus, 2013; McCauley, 2001; Meyer & Allen, 1997; O'Shea, 2014; and Wiggins, 2012). A detailed discussion of the themes related to this research sub question will be presented in the discussion of findings in relation to the literature.

Sub-Question 4 asked, "How do *physiological states* contribute to women's leadership development over time?" There were no themes or subthemes revealed in response to this question and comparison of the participants' experiences over time was not possible as participants only had five mentions in Time 1. While Bandura (1997) described physiological states as how confident an individual feels when interpreting their own emotional and physical state as they consider an action, only five participants made comments, essentially affirming Bandura's (1997) assertion in the Chapter 2 literature review, that this is the least effective of the four sources of self-efficacy. Although Bandura's (1997) interpretation of emotional cues regarding self-efficacy appear to be in agreement with the participants' comments, a recent report asserted that

leaders in more powerful positions were less stressed (Sherman et al., 2012). It should be noted that over the five-year time period, from the completion of ELAM until the Time 2 interviews, the participants in this study appeared to have gained control of their situations and moved forward. A detailed discussion related to this research sub question will be presented in the discussion of findings in the context of the literature.

Sub-Question 5 asked, “How do the experiences of these women *extend or suggest modifications in Bandura’s self-efficacy theory*. As discussed in Chapter 4, there were three themes that answered this question: *doing things differently, resilience, and sponsorship*. Together, 15 women made 73 comments regarding this question and the responses offer opportunities for further exploration in relation to the population of women in this study in academic medicine and professional women in male dominated fields in general. Each of the themes has received support in the literature as being relevant to women’s leadership development (Bandura, 1997; Carle & Chassin, 2004; Catalyst, 2011; Center for Creative Leadership, 2014; Foust-Cummings, et al., 2011; Hewlett, 2013; Jago, 1982; Luthans & Avolio, 2003; 2009, 2013; Richardson, 2002; Schein, 2004; and Sutcliff & Vogus, 2003).

Discussion of Findings in Relation to the Literature

This section presents the descriptive summary of the cross-interview findings and an analysis of the 19 participants in this study according to their presence in each finding. The detailed explanations of the participants provided empirical evidence of how self-efficacy influenced their leadership development over time and are presented in the context of the literature. The findings and analysis are linked to the research questions that guided the study.

As outlined in Chapter 1, this study contained one main research question that was operationalized by five sub-questions. The main research question was: How is self-efficacy involved in the leadership development over time of women in academic medicine? To answer the main question, this section is organized according to the following five research sub-questions: (a) How do performance accomplishments contribute to women's leadership development over time; (b) How do vicarious experiences contribute to women's leadership development over time; (c) How do verbal persuasions contribute to women's leadership development over time; (d) How do physiological states contribute to women's leadership development over time; and (e) How do the experiences of these women extend or suggest modifications in Bandura's self-efficacy theory? Table 21 illustrates an at-a-glance view of the sub-research questions and findings. Also, a summary table for each sub-question illustrating the number of comments per participant across Time 1 and Time 2 for each of the themes and subthemes is presented in Appendix Q.

Moreover, the findings for each sub-question help fill the missing gap in the literature about the connection between self-efficacy and leadership development over a multi-year period among women in academic medicine following their participation in a specialized leadership development program.

Sub-Question 1: Performance Accomplishments and Leadership Development

This section discusses the cross-interview analysis for sub-question 1: How do performance accomplishments contribute to women's leadership development over time? The performance accomplishments of the women are the main data source for the analysis and statements representing this source of self-efficacy were presented in

Chapter 4. The comparison of the performance accomplishment statements were across Time 1 and Time 2. The patterns of the data findings suggested agreement with Bandura's (1997) assertion in Chapter 2 that the most authentic evidence of self-efficacy was in performance accomplishments. Although each of the participants shared their own experiences, those experiences merged to create a connection common across all interviews. Three themes emerged from the analysis of the participants' interview statements relating to performance accomplishments as follows: (a) skill development, (b) decision-making, and (c) goal setting.

Skill development. The theme of skill development was present and most prominent among the performance accomplishments theme across all interviews in Time 1 and Time 2 as well as within each of the Classes of 1996, 1997, and 1999. According to Katz (1955), a skill can be defined as "an ability which can be developed, not necessarily inborn, and which is manifested in performance, not merely potential" (p. 33-34). This definition supports Bandura's (1977, 1986, 1997), assertion that self-efficacious individuals regard ability as an acquirable skill that can be increased by gaining knowledge and perfecting competencies. Moreover, these individuals seek challenges that provide opportunities to expand their knowledge and competencies. He stated that such people judge their capabilities and measure their success more by personal improvement than by comparison against the achievement of others. Bandura (1997) further posited that "conceptions of ability as either an acquirable skill or an inherent aptitude... exert strong effects on... cognitive functioning and performance accomplishments" (p.118). Stark and Flaherty (2003) pointed out that negotiation power comes from knowledge and skills. Within an organization, identifying critical leadership

competencies required for effectiveness helps define what skills leaders need (Pernick, 2001). To that end, six skill areas emerged from the skill development finding: (a) negotiation (b) delegation; (c) budgeting and finance; (d) communication; (d) political savvy; and (e) leadership generally. This section will relate each of these skills; thus, answering the research sub-question of “How do performance accomplishments contribute to women’s leadership development over time?” using representative examples and connecting them to the literature in the field.

Negotiation skills. Developing negotiation skills emerged as a finding relevant to the women’s performance accomplishments and their development as leaders. According to Russell (2010), good negotiation skills are essential for all managerial functions, particularly in the function of leading. Similarly, Yukl (2010) stated that “influence is the essence of leadership,” (p.151). Even so, Fisher, Ury, & Patton (2011) posited that many people are never formally taught how to negotiate and be effective in doing it. Adding to this assertion, the literature suggests that a majority of women are risk averse when it comes to negotiation (Babcock & Laschever, 2007; Casserly, 2012). While that can perhaps be argued, these claims also make the case for establishing more leadership development programs for women within institutions and organizations, like ELAM, that focus on critical leadership skills such as negotiation and conflict resolution. The participants in this study acknowledged that the instruction they received, through ELAM, taught them the importance of learning to negotiate and the significance of honing various negotiation techniques that, over time, would help them to achieve favorable results on their jobs and in their careers. One participant (Dr. Abbey 99) said that learning to negotiate was a wakeup call that helped her to avoid future conflicts;

another (Dr. Earlene 96) mentioned successfully negotiating the terms of her contract after learning the skill; and Dr. Janet 99 said it made a difference in her career decisions; and that over time, knowing how to negotiate helped her achieve many positive results.

This finding indicated that the collective thinking of the 10 responding participants was that negotiation was an essential skill that could be learned and once learned, would ignite their ability to advocate for themselves, their departments, and their people. This finding was also supported by Stark and Flaherty (2003) who pointed out that negotiation power comes from knowledge and skills. The women's portrayal of confidence in their ability to use negotiation strategies to successfully overcome limitations or constraints is similar to the definition of negotiation-efficacy by Hubbard and Mannell (2001) and (Miles & Maurer, 2012); and also aligns with Bandura's (1997) self-efficacy theory.

On the issue of conflict resolution, the literature supports the inclusion of negotiation training in leadership development curricula, as evidenced by a study conducted by Eckerd College's Management Development Institute that affirmed the link between a person's ability to resolve conflict effectively and her or his perceived effectiveness as a leader. Of particular significance, was the study's finding that conflict resolution skills, notably negotiation skills, are an important aspect of leadership development training. The study concluded that if this key area is overlooked, it could have harmful effects on a person's chances for promotion in an organization. Conversely, if conflict resolution training is part of a larger leadership development program, it can produce favorable results for individual leaders as well as for their organizations (Stamato, 2004). From a modeling perspective, Nadler, Thompson, and

Van Boven (2003) posited that part of acquiring negotiation skills, is observing someone integratively bargain successfully; thus, perceiving those behaviors as being effective in terms of outcomes obtained and deciding to emulate those behaviors, believing that they too, will achieve desired outcomes. This perspective of negotiation supports Bandura's (1997) construct of modeling as relates to vicarious experiences in self-efficacy development. The modeling theme will be discussed under Sub-Question 2.

To further substantiate this finding, a recent study was conducted by Helitzer, Newbill, Morahan, Magrane, Cardinali, Wu, and Chang (2014) on the perceptions of skill development of participants in three national career development programs (CDPs) in academic medicine. The study examined the characteristics and experiences of a national cohort of 879 women alumnae who had participated in Early- and Mid-Career Women in Medicine Seminars, and or ELAM between 1988 and 2010. It should be noted that the authors' selection of study participants, particularly from the ELAM cohorts, may have included women who also participated in this study as this study included women from the ELAM classes of 1996, 1997, and 1999; thus, their study could potentially lend credibility to this study. The results of the Helitzer et al. (2014) research showed that 99% of ELAM participants reported a significant gain or improvement in their negotiation skills as a result of participating in ELAM. The results of that study suggest that individuals can advance their negotiation skills over time.

Overall, the findings for this skill showed that after learning to negotiate, the women in this study were able to make a decision to be forthright in their stance; negotiate for those who were in a weaker position; persevere repeatedly through difficult negotiations; take more risks; resolve conflicts with less discomfort; be empowered by

success; understand the positive and negative implications of negotiation and learn from both; and do things differently. Sullivan, O'Connor, and Burris (2006) support the outcomes of the negotiations engaged by the participants; and also posited that self-efficacy influences negotiators to choose tactics that indirectly influence negotiator outcomes.

The perceptible narrative for the 10 women who offered comments relating to this finding is that over time, mastering this fundamental leadership skill of negotiation aroused confidence in their ability to address the complicated challenges of the workplace and prepared them for the difficulties they would encounter later.

Delegation. A second skill that surfaced as a finding with regards to performance accomplishments and leadership development was delegation. McKay and McKay (2010) stated that the ability to wisely and effectively delegate is a quality far more quiet than others, and yet one of the most crucial skills to a leader's success and the achievement of organizational goals. Finch and Maddux (2011) described delegation as a basic management skill that involves a process that can be learned. To that end, Dr. Janet 99 affirmed, "...I've learned to delegate much more since and because of ELAM..." Dr. Carolyn 97 said, "I certainly have a different awareness of working through people than I had before...and the need for delegation things and not doing everything myself." These statements illustrate an awareness of the importance of exercising delegation authority; however, there were other comments that seemed to be veiled with apprehension. For example, when dealing with institutional level problems, Dr. Earlene 96 revealed, "I have not delegated and called on people...and so, I've learned to delegate at a very low level, and I'm learning to do that at a higher level..." Dr. Olivia 99 expressed similar

reservations saying that sometimes she had some “difficulties with delegation” but “had been able to delegate more”... “you lose a certain amount of control when you delegate more.” The last comments seemingly reinforce Covey’s (1996) contention that many people know the mechanics of delegation, but they resist delegating fully because of a desire to retain “control” of the work process. Another scholar implied that the ability to delegate was “not there for many women;” and that it [delegation] is “the single biggest flaw of women managers” (Bagilhole, 1993). Moreover, Bagilhole (1993) cautioned that delegation can be a defining characteristic of their [women’s] leadership performance; thus, highlighting its importance.

Notwithstanding these complicating issues, the overwhelming majority of the women who referenced delegation described it as essential to assigning tasks, meeting deadlines, resolving conflicts, solving problems, and accomplishing goals. All of them acknowledged that over time, they relinquished more control, stopped doing everything themselves, and began delegating more. Their comments aligned with the literature which is replete with studies that posit delegation as complimentary to team and leadership growth when done well; and negative on goal achievement and positional advancements when done poorly (Bagilhole, 1993; Covey, 1996; Daft, 2008; Finch & Maddux, 2011; Hout, 2013). To the latter statement, there were no comments of negative outcomes concerning the women’s experiences with delegation. From a complementary purview, Dr. Teresa 99 said that “over a period of six years she had mastered the delegation skill” and understood how critical it was to her success as a leader. Dr. Janet 99 gave three examples of how her delegation skills had “progressed over time”, from “doing everything herself”, to “delegating small projects”, to ultimately

“releasing some control over a major project”. As further validation of this finding, the Helitzer et al. (2014) study, previously mentioned under negotiation, cited delegation as one of the 16 skills in which ELAM participants reported significant gain or improvement.

This finding is consistent with Prussia, Anderson, and Manz’ (1998) study on the mediating influence of self-efficacy, leadership and performance outcomes. The study concluded that the self-efficacy perception of leadership skills are enhanced as a result of training and will consequently contribute to performance improvements. The results in this study indicated that for the almost half of the participants that had disclosures regarding developing effective delegation skills, they recognized its importance and the motivating power it added to their performance as leaders.

Budgeting and finance skills. The third finding that presented with regards to performance accomplishments and leadership development was developing budgeting and finance skills. According to Diana Contino (2001, 2004), leaders must have a basic understanding of financial management, an ability to interpret financial statements, and a working knowledge of how budgets are formulated. These skills are important in determining the quality of an individual’s financial leadership (Barr & Bell, 2011). The absence of this fundamental knowledge and ability can create multifaceted challenges that affect the overall financial health of the organization (Barr & Bell, 2011). Such challenges are why Dr. Samantha 99 talked about having a “better overview of finances from ELAM,” and instead of getting “bogged down with one specific issue, looking at the whole picture.” It should be noted that literature specifically related to this finding was thin, focusing more on nursing executives and corporate leaders. However, the

concepts gleaned from those sources were applicable to financial leadership in general and thus, were cited here.

As to this finding, 10 participants recognized the importance of being knowledgeable about this skill in conducting the organization's daily business. This was evident in comments like, "I'd rather not have to battle, but since I have to, I'm better served by having gone through some of the finance courses... (Dr. Donna 96); and "I manage a budget of over a million dollars...I guess after ELAM it felt a little more, well a little less intimidating (Dr. Evelyn 97). In support of this finding, the earlier mentioned Helitzer et al (2014) study was unique in identifying finance as one of the skills in which ELAM participants recorded improvement.

In sum, all of the study participants' comments relating to budgeting and finance recognized that understanding how money flows and how institutions operate fiscally was critical to the advancement of their careers and their performance as leaders over time.

Developing communication skills. The fourth skill that was revealed as a finding and essential to leadership development was communication. The ability to communicate appropriately is an essential component for effective leadership (Dubrin, 2012); Blanchard (2006) and Froschheiser (2008) deemed it the most critical skill for leadership success. McNamara (2013) referred to it as one of the top consistently rated traits of distinguished leaders. Myatt (2012) summed it up with his assertion that it is impossible to become a great leader without being a great communicator. To that end, the comments showed that the 14 responding participants' recognized the importance of this fundamental skill and how it impacted their leadership position. For instance, Dr. Harriet

96 declared that...“it [ELAM] pushed me out of my comfort zone in terms of communication both ... to a larger audience and sort of one on one...I think that kind of thing is really powerful...” Dr. Earlene 96 said “...I can say something well, I can communicate it well...I got that feedback through several programs at ELAM.”

Curtis, Winsor and Stephens (1985) concluded that chief executives and other senior leaders place the highest value on effective interpersonal communication because they know that productivity depends on it. To this point, Dr. Ellen 96 seemed to avoid further obstruction of the department’s efficiency and lowered morale by employing effective communication with her chairs. She shared these thoughts and an example of how she communicated without being critical or negative: “...instead of saying you did this and that was bad... saying you know, one of my goals is that you would grow in whatever, in your role as... so that we can consistently basically produce what is expected...” This example is consistent with the literature that characterizes this level of communication as compelling and indicative of the highest form of leadership.

Nevertheless, Williams (2013) argued that while it is a stereotype that women are natural communicators, in the workplace, they sometimes struggle to make their voices heard. This notion seemed to have some merit as some participants like Dr. Samantha 99 and Dr. Irene 99 correspondingly mentioned that since ELAM, “I feel more able to speak about issues, I feel like I’m more able to use my voice.” This statement suggests that she did not feel able to effectively speak out or use her voice prior to ELAM. Although she overcame it, Dr. Irene 99 talked about her communication struggle: “...it took a while to speak up... I think the imposter syndrome has been there too, and I think women have that more but I know what it is when it strikes.”

Williams (2013) also offered suggestions for improving communication skills including speaking with conviction and authority, and body language. An illustration of these skills was present in comments made by Dr. Gail 97 and Dr. Harriet 96. With regards to conviction and authority, Dr. Gail 97 made these remarks: “I feel like I can be more immediately analytical about what needs to be done... I have this capacity and I can do it and I will do it.” On using body language, Dr. Harriet 96 said “I don’t know if I learned it from ELAM exactly, but I used body language to not let him leave the room until I had a chance to bring it up...”

This finding revealed evidence that the knowledge participants acquired for effective communication during ELAM was successfully executed upon return to their various work environments and continued over time. As mentioned in the negotiation, delegation, and budget and finance findings, the Helitzer et al. (2014) study also found that communication was one of the top five skills in which ELAM participants reported gain or improvement. Moreover, an empirical study conducted by Norgaard, Ammentorp, Ohm Kyvik, and Kofoed (2012), in which they investigated the impact of a training course on participants’ self-efficacy with a focus on communication with colleagues (doctors, nurses, nursing assistants, and medical secretaries) and patients, found that a communication course produced an increase in self-efficacy. The results also showed that the effect was still present six months later which suggests improvement of the skill over time. This current study is also consistent with Bandura’s (1997) self-efficacy theory and his assertion that “as one masters a particular skill, this reinforces or increases the belief that one can perform that skill and believing that one can perform the

skill improves the actual performance of the skill” (Bandura, 1994, p. 79). The study therefore, supports this finding.

In summary, the finding for this skill showed that the 14 participants who responded recognized that the primary responsibility for communication rests in their leadership, which in turn affects the communication behavior of subordinates. The participants’ accounts of the thoughts and experiences relating to their communication skills were supported by the literature. Hence, developing this skill was beneficial towards building and developing strong working relationships at all levels in an organization or institution; managing internal and external meetings well; developing good influencing and negotiation skills; managing reactions positively in different situations; and reducing stress levels.

Developing political savvy. The fifth finding related to performance accomplishments and leadership development was political savvy. This phenomenon has been referred to as “political skill” by such authors as Ferris, Perrewe, Anthony, and Gilmore (2000). Truty (2006) called it political savvy and suggested that it can be developed. Such were the beliefs of the overwhelming majority of women in this study, who, after participating in ELAM, understood that political savvy is a skill that is vital to their leadership development and career goals. In Chapter 4, the women shared their experiences and how they handled situations that challenged their ability to influence others to act in ways that enhanced their personal and organizational objectives. Dr. Gloria 99 illuminated this point well when she talked about being “... a bit of a political animal ... I will listen to things and take them in and get to know everybody ... and be fair... when I [a] new challenge comes up I have that base to build on”.

Ahearn, Ferris, Hochwarter, Douglas and Ammeter (2004) suggested that this skill was a critical component to leader effectiveness. This idea was implicit in Dr. Frances 97's words about her leadership evolution, from it being "my job to get it done" to "facilitating and celebrating the success of others... where we're really working at greatness is this being able to politically move a system and move people to where they become stars, the institution becomes a star." Her statement captures several of the behaviors and skills necessary to become politically savvy; and find support in Leslie and Gentry's (2012) pronouncement that mastering organizational politics is a proven ethical leadership approach that any organization and any individual can use to both influence positive change in an organization and achieve career success at the same time. This notion was reinforced by ELAM instruction and was apparent to the 15 women who made comments relating to this finding. For instance, Dr. Brenda 97 mentioned that over time, her political skills had enhanced her "credibility and access" in addition to giving her the strategic advantage of being able to "make things happen." Similarly, Dr. Earlene 96 said her political skills had enabled her to "influence the outcome of meetings."

The foregoing statements are great examples of political savvy epitomized. However, Perrewé and Nelson (2004) pointed out that women also face "glass walls" that limit their movement up or even across organizations, resulting in a power deficit. These authors claim that despite significant progress, women still find themselves in situations where opportunities for promotion, access to mentors and encouragement to take risks are absent. While the literature is sated with studies that support this argument, none of the 15 women who mentioned this skill made comments that would suggest agreement with this premise. Although significant in its contribution, the current results

cannot be solely attributed to the training received via ELAM; provenance could also be that these women were already highly skilled professionals in academic medicine prior to ELAM; and since ELAM and prior to their interviews, they had several opportunities and experiences to develop or sharpen this skill. In a 2005 empirical study, Ferris et al., found that political skill was associated with higher job performance and that it was a stronger predictor than self-monitoring, leadership self-efficacy, and emotional intelligence. This study might have some relevance as to why, in every comment, there appeared to be no sense of frustration or disillusionment, but rather, a vivacity that transcended barriers in their current workplace, and embraced the political challenges inherent in a typically male-dominated organizational environment. In other words, they remained laser-focused on their personal and professional goals.

With regard to Bandura's (1997) conceptual framework, Porter, Angle, and Allen (2003) referred to judgments of personal capability in social interactions and contexts as social self-efficacy. They further defined social self-efficacy as a basic belief or confidence in one's ability to control social situations, which contributes to an optimistic attitude and a positive demeanor, both of which contribute to effectiveness in social situations. In addition, the authors argued that political skill mirrors the concept of social self-efficacy; albeit, political skill is concerned with the unique contexts and interactions within organizations. This viewpoint of political skill is consistent with Bandura's (1997) concept of self-efficacy theory.

The Center for Creative Leadership (CCL®) surveyed 334 participants in its Leadership Development Programs and other Women's Leadership Programs in 2004-05. They found that those who are politically savvy have better career prospects and

trajectories, and are seen as more promotable. On that note, Dr. Brenda 97 said she “was asked to serve on the research committee” and accepted because it was “one of the fastest ways to understand who did what, research-wise within the institution.” She then became chair of the committee because “it would bring me closer to the dean for research.”

Overall, the finding for this skill revealed that learning to become politically savvy enabled the women in this study to understand and experience the importance of involving stakeholders in policy-making; the value of relationships; learning and relearning the politics of the environment; evolving to being able to politically move a system and move people; knowing the internal workings of senior administration and what that meant politically; and winning the trust of people by being willing to listen, being considerate, and being fair.

In summary, supported by the literature, statements relating to this finding demonstrated the 15 participants’ recognition of the meaning of becoming politically savvy and its relevance to positional power and leadership advancement over time. This finding is also consistent with Bandura’s (1997) self-efficacy theory, particularly performance accomplishments.

Enhancing leadership skills generally. *Enhancing leadership skills* is the sixth and final finding under the theme of skill development related to participants’ performance accomplishments and leadership development. Strong leadership is the backbone of an organization. Leaders create the vision, support the strategies, and are the catalyst for developing the individual bench strength to move the organization forward (Blanchard, 2006). The literature is satiated with studies, articles and anecdotes that address leadership development and offer suggestions for improving leadership skills

(Avolio, Walumbwa, & Weber, 2009; Bennis & Goldsmith, 2010; Cameron & Quinn, 2011; Dubrin, 2012; Kouzes & Posner, 2012). Yet, it can be an elusive characteristic, and developing leaders to their full potential remains one of the great challenges for organizations today (Blanchard, 2006). To address those challenges, Carter, Goldsmith, and Ulrich (2005) recommended the use of formalized programs for developing leadership competencies. In 1995, ELAM accepted a similar challenge by initiating and continuing to present day, a leadership development program for women leaders in schools of medicine, dentistry, and now, public health (Morahan et al., 2010). As alumnae of ELAM, all 19 of the women in this study, in both times, and in the three classes, shared relative viewpoints on their leadership development, with regards to changing how they lead, skill development, and performance improvement.

The analysis clearly showed enhancing leadership skills as the most important of all skills for women desiring to strengthen or change their leadership abilities over time. In particular, the women's comments focused on broadening their perspective on leadership, building skills, team building, being receptive to different opinions, and understanding how to lead. On the subject of leadership development, Dr. Maggie 96 said she had made a big change in her sense of leadership and had a "bigger appreciation" for team building. Dr. Frances 97 made a similar statement, saying that "I'm continually improving" and that her view of administration and her role had changed. Moreover, Dr. Harriet 96 and Dr. Carolyn 97 talked about "taking more risks" and "thinking about the bigger picture of administration" respectively.

Based on their extensive research, Kouzes and Posner (2012) make the point that leadership is a relationship that must be nurtured and, most importantly, it can be learned.

The stereotypical viewpoint that, heretofore, cast women as nurturers rather than leaders, informs the gender ongoing discourse about leadership (Catalyst, 2011). However, McDowall and Murray (2012) agreed with Kouzes and Posner's stance, in asserting that leaders should combine both feminine and male ways of working, and use a broad range of qualities and behaviors. To their first point of leader as nurturer, Dr. Abbey 99 said her commitment was to "...make sure they've got the basic necessities... building the skills they don't have so that the work group ... has a whole set of interactive skills... building those people so that they feel like they are growing within the program..." On the same point, Dr. Ellen 96 remarked that she believes that "...everybody has something to offer... if you see someone who hasn't offered something it's because they felt like they haven't had the opportunity, they haven't felt encouraged enough to feel safe to do it."

On learning to lead, Dr. Brenda 97 made these remarks: "What I learned about leadership...the importance of communication, recognizing different styles and personality characteristics..." Similarly, Dr. Earlene 96 said, "I learned that leaders can be very, very different types of styles. ELAM taught me...take the skills that I have and develop them and grow with them and work on the strengths that I have which may be different from other people's strengths."

In addition to the literature already presented to support this finding, the study conducted by Helitzer et al. (2014) found that leadership was also included in the top five skills in which ELAM participants reported gain or improvement. From Bandura's (1997) conceptual view, McCormick, Tanguma, and López-Forment's (2002) study found that leadership self-efficacy predicts leadership behavior and distinguishes leaders

from non-leaders; that prior leadership experiences predicted leadership self-efficacy judgments; and that women reported significantly lower leadership self-efficacy than men (Buckley et al., 2000; Catalyst, 2011; Kickul & Krueger, 2005; Morahan et al., 2010) .

The latter statement was not consistent with the comments and articulated experiences of the women in this study.

In general, all of the women in this study shared relative viewpoints on leadership development with regards to changing how they lead, skill development, and performance improvement as part of their progression towards leadership enhancement and career advancement. The literature supports this finding and the comments are consistent with Bandura's self-efficacy theory, in particular, performance accomplishments.

In summary, the following six findings about performance enhancement through skill development were common to all 19 of the participants in this study: development of negotiation, delegation, budgeting and finance, communication, and political savvy skills, and also enhancing leadership development skills. Moreover, these findings emerged across interviews and across both times, portraying the experiences of the participants in relation to the overarching theme of skill development with general support from the literature. The analysis of these findings also showed consistency with Bandura's (1997) self-efficacy framework with particular emphasis on performance accomplishments and its connection to leadership development over time. All three classes were represented in both times for these six findings with the exception of the developing delegation skills finding wherein no comments were identified in Time 2 for the classes of 1996 and 1997. The women's overall comments relating to enhanced skill

development increased from 125 mentions in Time 1 to 236 mentions in Time 2, which overwhelmingly emphasizes its relevance to these women of their leadership development over time. (See Appendix P for Self-Perception of Participants as Leaders over Time.)

Decision-making. The second theme that emerged as a finding related to performance accomplishments and leadership development was decision-making. While decision making as a stand-alone leadership development topic seems to generate less interest than other topics (Freifeld, 2012), the research shows that decisions are critical to leader success (Browne & Keeley, 2007; Turner & Müller, 2005). Albeit, there are serious moments when they can be difficult, perplexing, and stressful, the decisions leaders make ultimately shape, guide, and direct their personal and professional futures. To that end, Freifeld (2012) asserted that training and coaching can help leaders make better decisions. As alumnae of the prestigious ELAM Program, the women in this study displayed an understanding that process and recognized the seriousness of the decisions they made and the impact they could have on positional and career advancement as well as organizational movement. They spoke about reflection as a part of the process, feeling ambivalent, clarifying information, making tough decisions, and other factors. For example, when talking about making career decisions, Dr. Carolyn 97 stated, "...I spent the year at ELAM really trying to make the decision whether I was really ready to do administration full-time... it really took me the year of reflection...the direction was thinking about leadership as a profession..." Dr. Frances 97 provided a simple response to the concept of decision making and how she learned over time. She said, "...The difficult decisions are the difficult decisions... I think I'm doing better now than I

did before because of mistakes that I've made and learning from those mistakes, but it doesn't get any easier..."

In addition, there were five participants who, after their ELAM experience, decided that they were no longer interested in administrative leadership positions as deans, associate deans, or department chairs. The following are some examples of what they said. In considering administrative leadership, Dr. Freda 99 shared, "... I learned that I did not want to be a dean or a chairman of a university department..." Dr. Mary 96 commented, "...I've looked at other job opportunities both as department head in ... and at deanships and I'm coming more and more to think that I don't want to assume that type of position..."

In summary, the participants in this study presented evidence that showed that effective decision-making does not just happen; it takes reflection, time, effort, information and thought. The benefit of this process sufficiently reduces uncertainty and doubt about alternatives to allow a reasonable choice to be made. Overall, the 17 women who commented on this finding realized the importance of taking the time to process information that leads to making decisions that impact current and future career decisions over time, as well decisions that affect organizational performance. Their comments were supported by the literature; and were consistent with Bandura's (1997) concept of self-efficacy, specifically as relates to performance accomplishments and leadership development.

Goal setting. Goal setting was the third and final theme that surfaced as a finding in the context of performance accomplishments and leadership development over time. One of the most important roles of leaders is to set goals for their organization

(Burkus & Oster, 2012). In fact, some would argue, it is their most important function. According to Barney and Griffin (1992), organizational goals serve four basic functions: they provide guidance and direction, facilitate planning, motivate and inspire employees, and help organizations evaluate and control performance. While goal setting is advantageous to organizations, as well as employees, it is not an easy process to undertake. To that end, Locke and Latham (2002) posited that training courses on how to set goals, follow-up and refresher courses are often necessary to stay focused on the goal-setting process. Such training was provided through the ELAM Program in which the women in this study participated.

The women talked about their thoughts and experiences relative to their career goals and, in some instances, organizational goals, as well as the strategies they used to pursue and achieve them. For example, on goal setting, Dr. Ellen 96 said: “I’m going to give myself six months to a year to get a couple of programs going...that are very near and dear to my heart...” Dr. Maggie 96 made this statement about career goal setting: “...you’ve got to have a plan for your career. If you want to get to where you want to go, you better have a plan ...think about how your day to day activities fit with that plan...” Dr. Samantha 99 talked more about goal setting from an organizational point of view. “...out of this diversity plan one of the things we are going to do is educate search committees ... developed a training course for search committees for chair searches... role[roll] that into a training course for residents...” Her comments seemed to capture Locke and Latham’s (2002) basic functions of goal setting presented earlier in this section.

This finding is consistent with Bandura's (1997) self-efficacy theory within social cognitive theory, in which he asserts that goals increase people's cognitive and affective reactions to performance outcomes because goals specify the requirements for personal success. The literature also states that goals prompt self-monitoring and self-judgments of personal attainments (Bandura & Cervone, 1986; Locke, Cartledge & Knerr, 1970). However, the literature also offers that self-regulation of motivation depends on self-efficacy beliefs as well as on personal goals (Bandura & Wood, 1989; Barton, 2000).

In summary, 15 of the participants in this study talked about career planning and organizational strategizing as relates to goal setting. That goal setting is one of the basic tools used by organizations to assist in setting a direction and achieving it was substantiated by the literature and consistent with self-efficacy theory as relates to performance accomplishments. This finding also showed that participants viewed goal setting as a key component to their leadership development over time and that it is essential to moving organizations in a strategic direction and realizing their individual career goals.

Summary of findings for sub-question 1. This section answered the research question, "How do performance accomplishments contribute to women's leadership development over time?" By providing descriptive details about the three performance areas, one of which included six specific skills that emerged as a means to operationalize the question, this section related negotiation, delegation, budgeting and finance, communication, political savvy, generally enhanced leadership, decision-making, and goal setting as performance accomplishments that contributed to the leadership development over time of the women participants in this study. The data showed that

over time, the greatest growth of the four sources was within the self-efficacy source of performance accomplishments in the area of skill development.

Sub-Question 2: Vicarious Experiences and Leadership Development

This section discusses the cross-interview analysis for sub-question 2: How do vicarious experiences contribute to women's leadership development over time?

Vicarious experiences were shown to be the second most prominent of the four sources and corresponded with Bandura's theory with a comparison of participants' statements across Time 1 and Time 2. Although each of the participants shared their own experiences, together, they created a connection common across all interviews. Three themes emerged from the analysis of the participants' interview statements relating to vicarious experiences as follows: (a) networking, (b) modeling, and (c) mentoring.

Networking. The theme of networking was a major finding that spanned interviews in Time 1 and Time 2 as well as within all three classes. Ibarra and Hunter (2007a) defined networking as the creation of a fabric of personal contacts that will provide support, feedback, insight, resources, and information. Grayson (2014) added that those personal contacts also help solve problems and create opportunities. He further posited that networking is essential to effective leadership in today's organizations. To that point, Bartol and Zhang (2007) emphasized that leaders who neglect their networks are missing out on a critical component of their role as leaders. Hence, the awareness that taking action to develop and nurture related skills can create benefits for the leader, the team, and the organization (Grayson, 2014).

Bandura (1986a) affirmed that multilinked relationships may convey more information and mobilize stronger influences that produce beneficial results to enhance

self-efficacy and instill positive outcome expectations. Further, Cullen, Palus, and Appaneal (2014) declared that when leaders are able to extend beyond their organization, into other organizations, communities, and the broader society, they have “network perspective.” This network perspective provides for the “ability to look beyond formal, designated relationships and see the complex web of connections between people in and beyond the organization” (p. 3). To that end, three findings emerged under the theme of networking: (a) internal networking; (b) external networking; and (c) establishing friendships through peer networking. This section will relate each of these findings; thus answering the research sub-question of “How do vicarious experiences contribute to women’s leadership development over time?” with illustrative examples and connecting them to the literature in the field.

Internal networking. Internal networking was the first finding that surfaced in relation to the central theme of networking as relates to leadership development over time. Nine participants responded to this finding and acknowledged the importance of internal networking with statements like, “...a local networking path can be really important...” (Dr. Gail 97); and “...it’s [networking] absolutely essential for maintaining a good relationship throughout...” (Dr. Donna 96). According to Jeffries (2013), formal internal networks can help widen a leader’s circle of alliances. He further posited that these alliances aim to prepare people for challenging tasks and address issues they collectively face as leaders. They also help establish good cross-departmental working relationships. This conception was evident in Dr. Evelyn 97’s comments: “...we’ve been having some difficulty with personnel in my division ... I had this personal

relationship...I was able to go and arrange for a retreat for our division people...to get a facilitator and to speak with that person to really talk about what I really wanted

In their article on "*How Leaders Create and Use Networks*," Ibarra and Howard (2007) distinguished three different types of networking that an effective leader must employ to achieve these purposes; one of them was operational networking which is appropriate for this finding. In operational networking, the focus is more on internal networks and getting work done efficiently. Such networking includes, not only direct reports and superiors, but also peers within an operational unit, other internal players with the power to block or support a project, and key outsiders (Ibarra & Hunter, 2007). This form of networking fits within the framework of the comments made by some of the participants in this study. For example, in terms of inclusiveness, Dr. Olivia 99 illustrated this point including the increase of her wide net of alliances over time, when she remarked that she was "good at networking", liked "interdisciplinary education stuff... worked with different people in different areas of the university...and worked with dentists before..." The purpose of this type of networking is to ensure coordination and cooperation among people who have to know and trust one another in order to accomplish their immediate tasks. This notion was captured in participants' action words and phrases like "networking and building camaraderie," "lots of interaction," and "talking to each other," in relation to getting to know and trust one another. Sharing activities outside of work as a group was another way Dr. Janet 99 talked about building relationships and trust.

The participants' comments seem to align with Ibarra and Hunter's (2007a) statement about the importance of building good working relationships with the people

who can help “them” do their jobs. Also, the strength of the mentions seemed to suggest the need to focus additional training on this critical element of leadership development and career success; particularly, since the literature implies that people who progress more quickly in their careers tend to be those who use these skills to establish and manage a wider network of contacts (Jeffries, 2013).

A review of the literature revealed no evidentiary support directly related to internal networking and self-efficacy pursuant to leadership development over time. This might be connected to Bartol and Zhang’s (2007) contention that although “networking has become a critical skill for leaders, it has received scant attention in the leadership development literature” (p. 357). Nonetheless, as cited in the introduction to the central theme of networking, Bandura’s (1986a) self-efficacy concept essentially includes the connection of multiple relationships as a means to communicate more information and organize stronger influences that produce beneficial results to enhance self-efficacy and instill positive outcome expectations; thus, yielding support for this finding.

In summary, nine of the participants in this study talked about internal networking as relates to relationship building, internal and strategically external to the workplace, connecting with senior administrators, building alliances that provide greater opportunities for enhanced divisional performance, and interacting one-on-one and in groups. Networking with colleagues within an organization is vital to organizational performance and leadership success (Higgins & Kram, 2001). In general, this finding was substantiated by the literature, although there is not yet direct support for Bandura’s (1997) self-efficacy framework in the context of this finding. This finding also illustrated that while participants viewed internal networking as important and showed some

expansion over time, a continuous effort should be considered towards enhancing this leadership ability.

External networking. The second finding that emerged in reference to networking and leadership development over time was external networking. Heermann (2014) declared that being intentional about building networks, and knowing how to confidently leverage them, is critical for leader success. In agreement with this assertion, an overwhelming majority of the study participants mentioned this finding and its importance to their organizational performance and leadership success with comments that were richly descriptive as presented in Chapter 4. For example, Dr. Carolyn 97 explained, "...it [ELAM] provided an important network of other people who serve as a resource, a sounding board...which is also, I think, very valuable..." She went on to differentiate internal from external networking and how she benefited by saying that the previous network was "mainly people in my own institution" and "in my scientific field" whereas this network was "clearly interested in administrative issues", with "different backgrounds... different experiences"... and the "experience of different institutions". Her comment was also consistent with Ibarra and Hunter's (2007a) definition of personal networking which makes reference to building relationships outside the organization through professional associations and personal interest communities.

Contacts are focused more on external connections and oriented towards current and future interests (Ibarra & Hunter, 2007). This definition corresponded with Dr. Harriet 99's sentiments about her external networking experience initiated through ELAM: "...It didn't take very long to create the camaraderie and the rapport that was required for people to begin sharing information... just among the 25 fellows... a huge

bonus of ELAM which I anticipated...” To the authors’ viewpoint, Dr. Freda 99 said, “...just knowing all these people around the country... we now know each other and can call as necessary... when things come up and I just want to talk... I now know 30 people I can do that with...”

Strategic networking, building internal and external relationships that are oriented towards future priorities, was the other concept presented by Ibarra and Hunter (2007a) relevant to this finding. Clarry (2007) affirmed that these types of contacts can contribute to future opportunities, career advancement, and strategic partnerships. This was manifested in several comments made by the participants in this study. For example, regarding future opportunities, Dr. Deborah 99 said because of one of her ELAM Fellows, she made a high level connection to the head of a foundation that addressed an organizational need. She said, “I think ELAM helps with that networking through channels I wouldn’t normally have access to.” As to strategic partnerships, Dr. Olivia 99 contacted an ELAM classmate about grant collaboration and because they had bonded, she was looking forward to their partnership.

Cullen, Palus, and Appaneal (2014) postured that in this interdependent and highly connected world, people have to communicate and coordinate across geographies, functions, levels, and organizational borders to achieve success. According to Clarry (2007), this level of commonality makes for powerful referral potential. These authors’ pronouncements are evident in remarks from Dr. Abbey 99 who said that her group from ELAM continues to communicate through email, and sometimes, calls. She said, “...all the way from networking to consultation ...I continue to be involved in this professional women’s group... I have gotten the follow-up that I need. Everything I’ve looked for,

I've been able to get through ELAM contacts..." Additionally, Dr. Freda 99 mentioned that through ELAM, she had made "...connections with other women in medicine as well as outside academics and government...it is now becoming more clear to me that is [a] viable way to work outside of the box..." Her comments were also consistent with Day's (2001) assertion that networking involves the interaction of groups of managers and executives who have common training or job experiences.

A search of the literature revealed no studies or articles specifically related to external networking and self-efficacy in the context of leadership development over time, and particularly as relates to women in academic medicine. However, in the introduction to this section on networking, Bandura (1986a) affirmed that multilinked relationships may convey more information and mobilize stronger influences that produce beneficial results to enhance self-efficacy and instill positive outcome expectations. This statement supports the inclusion of both internal and external networking within the self-efficacy framework. Moreover, in his 1998 article on *Personal and Collective Efficacy in Human Adaptation and Change*, Bandura infers this connection in the following statement:

...Personal agency through efficacy belief operates within a broad network of sociostructural influences. In these agentic transactions, people are producers as well as products of social systems. People often have to work together to shape their social future. Self-efficacy theory, therefore, extends the conception of agent causality to people's beliefs in their collective efficacy to produce desired outcomes... (p. 1).

In summary, 18 of the participants in this study revealed comments related to this finding on external networking and was substantiated by the literature. They spoke about resourcefulness, access, and the many benefits they derived from the connections initiated via participation in the ELAM Program, and their subsequent expansion. No literature was found to support self-efficacy theory in the context of external networking

and leadership development, other than its allusion through Bandura's 1986a and 1998 writings. Overall, this finding was a strong indicator that over time, participants recognized the importance of external networking to their organizational performance and leadership success.

Establishing friendships through peer networking. The third and last finding that came up within the principal theme of networking was establishing friends through networking. Katen (2012) posited that networking is about building rapport, having substantive conversations and finding commonalities with other professionals. To that end, Day (2001) offered that leaders need effective and efficient ways to connect with one another to share information, get support, mobilize resources, learn, and align their visions in a strategic direction. To address that need, the ELAM leadership development program, within its curriculum, offered instruction and guidance, not just on “knowing what” and “knowing how,” but also on “knowing who” in terms of fostering broader individual and collaborative networks. Moreover, ELAM provided opportunities for participants' interaction as a means to facilitate the formation of personal and professional bonds that would continue to grow and endure over time. To that end, over half the women in this study responded to this finding and commented on the friendships that grew out of their ELAM experience including the meaningful conversations and interactions that mutually advanced their professional goals.

Hoppe and Reinelt (2010) referred to this phenomenon as peer leadership networks— networks that emerge from leadership programs (FAIMER, 2013). Day (2001) affirmed that organizations should consider peer relationships as a potentially valuable component of an overall leadership development program. The fact that the

majority of these friendships began at ELAM illuminates this point, especially in comments like, "...we met at ELAM again, so I feel like I have a friend for life..." (Dr. Harriet 96); "...the networking, the friends that I made, [and] the contacts that I made were helpful...my very best friend went through ELAM with me and we have continued..." (Dr. Teresa 99). Dr. Brenda 97 said, "...I did establish some fairly strong friendships through ELAM and then being able to watch a few of those women do job transitions was very useful too..." Hoppe and Reinelt (2010) further asserted that the sustainability of ties beyond the end of the program depends on the quality of the relationship during the program and supports that cultivate the network after the program i.e. newsletters, listservs, face-to-face, and retreats. As to sustainability and quality of the relationship, Dr. Donna 96 had this to say about the friendships she made through ELAM: "...these are going to be friends that I'm going to have for a long time, a number of them... friendships for me are some of the most important parts of my life..." She added that ELAM was a way to gain not just professional contacts but "some closer female friends". Cultivating the network was illustrated in Dr. Samantha 99's comment: "...in terms of socializing ...the number was a total of 8 people who really got to know you very well... you have some personal relationships that really sort of work no matter where you are. They are good friends..." The foregoing comments exemplified the culmination of shared experiences that forged friendships and collaborations cultivated to last over time.

With regards to the Bandura's (1997) theoretical framework, a search of the literature showed no evidence of support in direct relation to this finding on establishing friendships through peer networking and the construct of self-efficacy. However, as

mentioned in the previous findings of internal and external networking, Bandura (1986a, 1998) encompassed the broad domain of networking in the article wherein he mentions multilinked relationships and its connection to self-efficacy and outcome expectation.

In summary, 11 women responded to this finding while sharing their thoughts and experiences on establishing friendships through peer networking. The mutual connection for these women and the friendships they established was their participation in the ELAM leadership development program and the bond it created over time. Overall, this finding was substantiated by the literature. This finding was generally supported within Bandura's (1997) conceptual framework; the literature revealed no other support relative to women's leadership in academic medicine over time.

Modeling. The second major theme that emerged as a finding related to Sub question 2 was modeling. This finding extended across interviews within the Classes of 1996, 1997, and 1999 and covered two points in time. Modeling refers to demonstrating and describing the process of mastering a new skill (Bandura, 1997). This aspect of vicarious learning, where individuals observe competent and relevant role models successfully performing similar tasks, or cognitive modeling through visualizing successful performance is impactful (Bandura, 1997; Eby et al., 2010). After extensive research, Kouzes and Posner (2003) identified "model the way" as one of the five practices of exemplary leadership. They further proclaimed that "leaders model the way by finding their voice and setting an example" (p.1). Massaro (2010) proposed that it [modeling] is the most critical leadership practice. It also serves as another effective tool for promoting a sense of personal efficacy. To that end, Bandura (1977) emphasized the importance of observing and modeling the behaviors, attitudes, and emotional reactions

of others. Theoretically, he postured that “most human behavior is learned observationally through modeling: from observing others, one forms an idea of how new behaviors are performed...which later serve as a guide for action” (p. 22). This modeling theme disclosed mentions from the participants about the value of interacting with women, either individually and or severally, who had similar problems or challenges, had similar job titles or positions, and experiences that made them feel that they understood and could relate to each other. Thus, two findings surfaced relating to modeling: (a) performance similarity modeling, and (b) diversified modeling.

Performance similarities modeling. The first finding that presented under the central theme of modeling was performance similarities modeling. According to Bandura (1986a), modeling occurs in everyday association networks. Its influences take different forms and serve different functions depending on the types of information they convey (Bandura, 1986a). In general, modeled successes by similar others raise observers’ beliefs in their efficacy over time. Similarity to a model is one factor that increases the personal relevance of modeled performance information to observers’ beliefs in their own efficacy (Bandura, 1997; Sloma-Williams et al., 2009). To this point, Dr. Gail 97 appeared to have enhanced her understanding of the complications of health care centers; thus, becoming more willing to engage other ideas after meeting women who had similar job positions. This is what she said: “ELAM helped me meet...women who had job portfolios that were similar to mine but different enough so that it broadened my understanding of the complexities of health centers...It also gave me ideas...” Persons who are similar or slightly higher in ability provide the most informative comparative information for gauging one’s own capabilities (Bandura, 1997). A majority of the

ELAM study participants spoke about feeling comfortable talking to women who were similar to them; were located in different areas of the country; and who challenged them to improve.

According to Kouzes and Posner (2003), formal training and education is helpful; however, learning from other people and their experiences provides the broadest range of knowledge and opportunities for leadership development. This pronouncement was illustrated in many of the comments made by the 14 responding women who participated in the ELAM formal training program wherein observations were made, deep conversations were had, and lasting relationships were formed with women among them who had a range of similarities. These interactions would also begin to heighten the progression of their personal and professional growth as leaders over time. Comments were made that were subtle as well as profound. For example, Dr. Evelyn 97 said, "...I mean, just, what can I say? It's just having someone who has gone through similar things to bounce idea off..." These were Dr. Mary 96's words: "Certainly I met a lot of people that I really enjoyed interacting with and are on the same wave length..." and Dr. Olivia 99 exclaimed, "But just kind of knowing that we both had the same kind of training also I think helps in terms of knowing that we are sort of looking at things in maybe a little more similar way." Although there were not a lot of words spoken, the subtle enthusiasm of these women appeared to be ripe with appreciation for having been introduced to women who were like themselves in some ways and who were willing to share leadership experiences and issues akin to their own. According to Bandura (1997), observing and interacting with successful individuals who have or have been in situations or positions such as one's own, encourages self-efficacy.

Other participants' expressions about this finding seemed more descriptive of the scale of benefits derived from their interactions. Dr. Samantha 99 demonstrated this point: "...the primary thing has to be meeting other people who are at the same level or above" like "department chairs who have more extensive responsibilities...other people with less focused responsibility... people from around the country ...who had similar experiences..." Dr. Abbey 99 conveyed these thoughts about talking to someone who understood her problems, "... I know somebody just about everywhere across the country now... when issues come up like this problem I know ... someone who has faced something similar and I can call... sometimes what words worked for somebody else are helpful..." These two examples were consistent with Kouzes and Posner's (2003) earlier assertions about learning from other people.

While, a review of the literature showed no support for this finding in regards to Bandura's (1997) conceptual framework, Bandura's (1997) construct of self-efficacy as to performance similarity modeling was firmly captured in his literature. In addition, 14 women responded to this finding and shared their thoughts and experiences concerning interacting with women who were in similar positions. It should be noted that while only one participant spoke about this finding over time, the overwhelming majority of comments were rich and descriptive in speaking about their connection to women whose status was similar to theirs and what that meant to them. And so, the substance and tone of participants' thoughts might have been determined from the point of completing ELAM up until the first interview five years later. Overall, the finding was substantiated by the literature including the Sloma-Williams et al. (2009) study on women in academic medicine conducted at a single point in time. However, no studies were found related to

this finding pertaining to women's leadership development in academic medicine over time.

Diversified modeling. The second subtheme related to the primary theme of modeling was diversified modeling. According to Bandura (1997) "appraisal of personal efficacy is rarely based on the performances of a single model" (p. 99). Thus, he described diversified modeling as people having opportunities to observe the attainments of many individuals of similar status. He further proclaimed that exposure to multiple skilled models produces stronger belief in one's efficacy to learn, higher perceived efficacy for notable attainments, and higher development of competence than does observing a single skilled model (Bandura, 1997). The study participants articulated views and experiences that corresponded to this finding. However, Dr. Freda 99 seemed to have captured the real meaning of diversified modeling when she said, "I was able to see a lot of other very powerful women and know that I had at least as much personal strength as they did."

Bandura's (1997) assertion on the advantages of individuals having multiple models versus a single model is consistent with the women's comments and the literature. In the previous finding on performance similarities modeling, Kouzes and Posner (1993) posited that even though formal training and education is helpful, learning from other people and their experiences provides the broadest range of knowledge and opportunities for leadership development. This concept can also be applied to diversified modeling as the focus is on observing many people with similarities rather than one. To that end, there were many comments relating to this finding that presented phrases that were common to the 11 responding participants. Such phrases as "to be able to see women,"

“looking at each peer and seeing how each woman,” “exposing me to women,” “I saw in each of our leaders,” “watching our leaders” and “it gets you to see different women,” are terse; yet, their description encapsulates what diversified modeling is all about. This theme of “observing many women” as models of exemplary leadership was continued in other participants’ expressions that appeared to affirm increased self-efficacy as the outcome of these observations. Dr. Ellen 96 said this about observation and her own achievement: “...if you looked at what each person had achieved... it gave a very realistic and insightful view of what I can achieve given what I know about myself and where my limitations are and where my opportunities are...” Bandura’s (1997) earlier statement that “observing many women” produces stronger perceptions of efficacy relative to learning, achieving, and competence, was encompassed in Dr. Harriet 96’s remarks. She said: “...and if you can embody all of the strengths of the people who are teaching you can actually be better than they are...”

In regards to Bandura’s (1997) conceptual framework, a literature search revealed studies and articles that were related to role modeling and leadership. For example, Eikenberry (2009) asserted the importance of learning from role models; and Taylor, Taylor and Stoller (2009) made statements about the influence of role modeling on developing leaders but in the context of physicians. Hence, at this writing, no studies or articles were revealed specific to diversified modeling and leadership development pursuant to women in academic medicine.

In summary, 11 women offered comments referencing this finding. They provided rich, descriptive mentions about diversified modeling and how having the opportunity, through ELAM, to interact with an elite group of women and hear their

stories of struggle and triumph, informed their leadership intelligence and enhanced their self-efficacy over time. Overall, this finding was supported by the literature.

Mentoring. The theme of mentoring was the third and last key finding that emerged to address Sub-Question 2 on “How vicarious experiences contribute to the leadership development of women in academic medicine.” This theme was present across all interviews in Time 1 and Time 2 as well as within each of the Classes of 1996, 1997, and 1999. The women shared their thoughts and experiences regarding the mentoring they received and provided. Mentoring has long been seen as valuable for leadership development (Bass, 1985; Kotter, 1996; Kram, 1985; Yukl, 1998) and for individual career success. Eby et al. (2010) referred to mentoring as a “developmentally-oriented interpersonal relationship that is typically between a more experienced individual (i.e., the mentor) and a less experienced individual (i.e. the protégé)” (p. 510). In an organizational setting, mentoring can take many forms. Bozeman and Feeney (2007) offered their definition of mentoring to best capture this point:

Mentoring is a process for the informal transmission of knowledge, social capital and the psychosocial support perceived by the recipient as relevant to work, career or professional development; mentoring entails informal communication, usually face-to-face and during a sustained period of time, between a person who is perceived to have greater relevant knowledge, wisdom or experience (the mentor) and a person who is perceived to have less (the protégé or mentee).

In their reconceptualization of mentoring, Higgins and Kram (2001) introduced the notion of a developmental network that comprises a number of relationships versus a single mentor that focus on the career growth and personal learning of an individual. This notion is consistent with Kram’s (1985) initial assertion of a “constellation” of developmental relationships that include family members, mentors, supervisors, peers, and other social spheres. Higgins and Kram’s (1985) position aligns with Bandura’s

(1997) social learning model, in which he postured that mentoring is based on the practice of broadly stressing the importance of positive reinforcement on behavior change. The practice of mentoring focuses on providing support through modeling, teamwork, questioning, observations, and critical constructive feedback (Eby et al., 2010; Higgins & Kram, 2001). To that end, two findings emerged from the mentoring theme: (a) mentoring from deans and other advanced leaders; and (b) mentoring others. This section will relate each of these findings; thus, answering the research sub-question of “How do vicarious experiences contribute to women’s leadership development over time?” using representative examples and linking them to the literature in the field.

Mentoring from deans and other advanced leaders. Mentoring from deans and other advanced leaders was the first finding that appeared under the central theme of mentoring in relation to leadership development. All 19 of the participants made mentions concerning this finding and viewed mentoring from their deans and other respected leaders as an opportunity to enhance their leadership ability through the authentic values, knowledge and skills of an experienced professional in the field. According to Eby et al. (2010), this could be accomplished by having a good mentor which is essential to one’s career success as a leader and ubiquitous in career counseling. She further asserted that mentorship can have a positive effect within the workplace, in career advancement, and in enhancing overall leadership performance. Jacobi (1991) concluded that a mentoring relationship is often “hierarchical”; that is, the relationship is generally between an individual more experienced or skilled in a field and one of lesser skill. The women in this study talked about mentoring relationships with their dean, vice

president, associate provost, and hospital CEO, for example, who were perceived to be more experienced than they or who had a skill they desired or needed.

A critical aspect of the mentoring relationship is guiding the mentee's career advancement. Kram (1985) identified five activities that promote career development. The first was sponsorship which will be addressed under Sub-Question 5. The next two were arranging opportunities for challenging assignments as well as exposure and visibility. The idea of challenging assignments appeared in Dr. Frances 97's comments: "... was a tremendous mentor to me in terms of giving me opportunities, in terms of letting me make some mistakes without them being fatal to me..." In many cases, providing challenging assignments and providing exposure and visibility may overlap (Claire & Deluga, 2001). This notion of exposure was captured in Dr. Harriet's expression when she sought mentoring from a vice president; a position she aspired to. She went on to say this: "...when I talked to her ... she said 'What can I do for you?' ... I said, 'You can remember who I am' ... she said... 'We need to get you on national committees..." High profile assignments facilitate the development of relationships with other senior managers within the organization (Higgins & Kram, 2001; Kram, 1985). To this point, Dr. Abbey 99 gave numerous accounts of the mentoring relationships she encountered; for example, her immediate dean and two other deans of research, an endowed chair, and an associate provost. She noted that all of them were supportive and influential in her career advancement. Coaching is another vital part of every mentor's activities (Kram, 1985). By offering specific suggestions, advice, and feedback, the mentor assists the mentee in building both technical and political skills needed to succeed as leaders (Claire & Deluga, 2001; Kram, 1985). There were several comments that were

analogous to this conception. For example, on feedback, Dr. Ellen 96 said her mentor sat with her and "...critically reviewed my credentials... said this is where you fall short, this is where you're really strong... challenged some of the ideas I had about myself ... and leadership in general...".

A more descriptive coaching example was found in Dr. Donna 96's comments related to Kram's (1985) concepts of feedback and suggestions. In particular, she sought and received helpful feedback on a job application and accompanying letter from a senior leader at ELAM. She said she was given "extremely good perspective" on the pros and cons of accepting another job and that her insight about medical schools was unique. Furthermore, she appeared to be really serious about gleaning information to help her solve problems and address various matters of concern. She talked to several of the speakers present but one in particular, was able to share and articulate the literature related to her concerns. In regards to advice, Dr. Olivia 99 made these comments about her dean's counsel: "...he said to me, 'Don't sell yourself short. There's still things that you could do'. That there's still ways that you could be a dean position that I think would be good for you..." The participants made other general comments about mentoring; basically acknowledging that they had a mentor and briefly alluding to their experience. However, having the experience of ELAM and access to powerful women leaders, many of whom were at the height of their careers, appeared to have been awe inspiring; particularly for Dr. Harriet 96 who said, "It was like a multi-faceted kind of mentorship through ELAM just because we met these people and they accepted us as being worthy of their interests. Who knows why? They don't know me from Adam, they don't know me."

There were several studies that addressed the connection between mentoring and leadership development (Chopin, Danish, Seers, & Cook, 2013; Day & Allen, 2002). While the results of the Chopin et al. (2013) study found that the presence of a mentor is important to the protégé's or mentee's leadership self-efficacy, the Day and Allen (2004) study showed only moderate support for career self-efficacy as a mediator between mentoring and indicators of career success. Neither of these studies nor the literature reviewed were in the domain of mentoring in relation to the leadership development of women in academic medicine over time; thus, showing no direct support for this finding.

In summary, 19 women offered comments relating to this finding. Overall, this finding was supported by the literature on studies in relation to mentoring and leadership development. However, no direct support was found for Bandura's conceptual framework pertaining to leadership development and women in academic medicine over time.

Mentoring others. Mentoring others was the second and last finding that surfaced within the central theme of mentoring in relation to leadership development. All of the participants responding to this finding spoke about mentoring in terms of it being an essential leadership skill that can be a mutually rewarding experience personally and professionally for the mentor and the mentee (Eby, Butts, Durley & Ragins, 2010). In reference to mentor rewards, Dr. Gloria 99 said, "I think as you continue to do it, you sort of continue to self-improve and...I've done a lot more mentoring since I've been in ELAM..." Dr. Gail 97 gave a strong description on the reciprocity of mentoring others. She offered these comments on how she benefited from the experience: "I think the quality deepened my understanding. It gave me a stronger voice to talk about gender and

power. It gave me a stronger sense of imparting the issues around the culture of an institution...” She said ELAM helped her to understand “what it means to be a good mentor and how to size up the readiness of the mentee to hear it...”

Agunloye (2013) defined mentoring as a process of consciously building a common relationship between two or more professional colleagues for the purpose of promoting personal and professional growth. The personal satisfaction derived from helping someone else learn, grow, and improve their skills can be enriching. Relating to this statement, Dr. Brenda 97 said, “...I enjoy watching other people succeed and I think the more it sort of reflects back, a little bit of it...sort of like a warm glow when they succeed...” Dr. Ellen 96 added her thoughts on what it takes to help others become successful. She made these comments about mentoring others: “...the choice is that the faculty and their success matters more than ... your own individual personal success... so the mentor relationship is not just you know, gee I enjoy your success, it’s I’m absolutely committed to your success...” Particularly for the mentor, mentoring others can build leadership skills, improve communication skills, add a fresh perspective on things, promote a new way of thinking, and contribute towards career advancement (Bozeman & Feeney, 2007). On the idea of a new way of thinking, being an effective mentor and having helped many students, colleagues and other individuals across the country become successful, Dr. Frances 97 appeared to have expanded her vision. Thinking that she’s better working with groups than one-on-one, she made this remark about mentoring others: “...in the process role, and it’s kind of the fun of it, in addition to trying to do the individual, I think what I have a unique opportunity to do right now is to almost mentor on a mass scale...” As stated by Bozeman and Feeney (2007), such an undertaking

would challenge Dr. Frances 97's skills as a mentor but would also enhance her communication skills and heighten her leadership skills.

Mentoring others engages modeling in reverse such that the mentor becomes the role model and exposes the mentee to useful skills and strategies that can raise their self-efficacy belief (Bandura, 1997). Thus, it should be stated here that the mentoring concepts presented by Kram (1985) and other scholars in the previous finding are relevant to this finding as well. Kram's (1985) concepts resonated in comments continued from an earlier statement made by Dr. Gail 97, particularly as relates to challenging assignments. She said this about her process and being instructive:

"... It's defining, it's transparency, it's giving people access to speaking engagements, volunteering them for service, letting the junior faculty person, or the ... person decide whether they're going to decline or accept..."

Theoretically, as was the case for the previous finding on mentoring from deans and other leaders, there were several studies and articles that addressed mentoring and leadership development in the context of academic medicine. However, there was no empirical or literature support for Bandura's conceptual framework related to mentoring and leadership development relative to women academics in medicine.

In summary, all 19 of the women in this study participated in responding to this finding on mentoring others. The findings were supported by the literature; however, not within Bandura's (1997) conceptual framework.

Summary of findings for sub-question 2. This section answered the research question, "How do vicarious experiences contribute to women's leadership development over time?" Descriptive details were provided about the three performance areas, which

included seven findings that emerged as a means to operationalize the question, this section related internal networking, external networking, establishing friendships through networking, performance similarity modeling, diversified modeling, mentoring from deans and other advanced leaders, and mentoring others vicarious experiences that contributed to the leadership development over time of the women participants in this study.

Sub-Question 3: Verbal Persuasion and Women's Leadership Development

This section discusses the cross-interview analysis for sub-question 3: How does verbal persuasion contribute to women's leadership development over time? The interview transcripts of the women were the main data source for the analysis and statements representing this source of self-efficacy were presented in Chapter 4. The data presented gave credibility to Bandura's (1997) assertion that verbal persuasion was the third most important source of self-efficacy. The comparison of the verbal persuasion statements were across Time 1 and Time 2 and included the Classes of 1996, 1997, and 1999. Each of the participants shared their individual experiences which merged to connect across all interviews. Two themes emerged from the analysis of the participants' interview statements relating to verbal persuasion as follows: (a) support, and (b) feedback.

Support. Support was the first theme that emerged under Sub-Question 3 which asks, "How does verbal persuasion contribute to the leadership development of women in academic medicine?" Essentially, verbal persuasion involves convincing people that they have the capacity to achieve what they seek (Bandura, 1997). He added that "it can bolster self-change if the positive appraisal is within realistic bounds" (p. 101).

Leadership can be extremely stressful, even when individuals are committed to their learning and growth. People experiencing them need support and encouragement (O'Shea, 2014). More specifically, they need opportunities to ask questions, acknowledge and discuss challenges, and identify potential solutions. In addition, receiving encouragement from peers and other experienced leaders communicates a belief in the aspiring leader's personal and professional ability to advance their leadership skills (O'Shea, 2014). To that end, two findings emerged under the theme of support: (a) peer-to-peer support, and (b) deans and other advanced leaders' support. This section will relate each of these findings; thus answering the research sub-question of "How does verbal persuasion contribute to women's leadership development over time?" with representative examples and connecting them to the literature in the field.

Peer-to-peer support. The first finding that emerged under the central theme of support for Sub-Question 3 is peer-to-peer support. Sixteen study participants shared their thoughts and experiences relating to this finding. Their focus was on positional issues, the advantages and disadvantages of seeking or holding specific leadership positions, asking questions about career opportunities, staying in touch and keeping abreast of each other's progress. In their seminal work, Kram and Isabella (1985) offered an expanded view of leadership development, pronouncing that relationships with peers offer an important alternative to personal and professional growth. They suggested that these peer relationships are neither static nor finite and that they can evolve with the career and offer a range of development support for growth at each stage.

Marcus (2013) declared that mentoring one another via peer relationships and networks can be very effective and satisfying. She further offered that having a close

group of trusted friends and peers who can be frank, generous, and root for each other's success can be the thing that helps bring the goals that seem distant into the realm of being much more achievable. This was evident in Dr. Gloria 99's remarks about her group of trusted friends and peers. "...This was a group that became close that we could talk ... any which way we wanted to and have an outlet for some concerns or questions... senior women you could call on if you just wanted to run something by..." On the subject of rooting for each other's success, several of the women talked about giving and receiving support from their peers. For example, when she had questions or needed guidance on something, Dr. Irene 99 said, "The answers and guidance came from, more often than not, peers, not the people up in front of the room in almost every case...peers all had different strengths so I learned a lot from them..." Talking about pros and cons of a particular position with one of her peers, Dr. Samantha 99 made these comments: "...We've actually talked, she was looking at being a chairman and we talked about the pros and cons and I've talked her about the faculty affairs and the pro and cons. We've both said things to go for... I think that goal of finding somebody to just touch base about as to how you are coming on your goals was really good. With regards to her peers, Dr. Ellen 96 said, "...I have to say now my dean and I are friends so it's, you know, over the years the kind of mentoring I've needed has changed and right now it's much more a peer relationship than a mentor mentee relationship." Kram and Isabella (1985) asserted that one of the most significant implications to come from peer mentors is their ease of access as they are more readily available to their fellow peers. This conception was found in Maggie's comments : "...The minute ... I talk to them informally, everybody said give us

a call, let us do whatever we can to help you deal with this sense of oh my gosh, you know they're there for me...It's kind of amazing.”

A search of the literature showed evidence of peer-to-peer support in various domains. One study was found on developing leaders through mentoring. Ensher, Thomas and Murphy (2001) examined the effectiveness of various types of mentors and mentor support on protégés' satisfaction with their mentors, jobs and perceived career success. The results contradicted the literature's previous conclusions that peer mentors offered the most effective and satisfying functional support and relationships than did hierarchical mentors (Kram & Isabella, 1985; Meyer & Allen, 1997). Even so, there were no studies found related to peer-to-peer support and how it contributes to leadership development among women academics in medicine over time.

From Bandura's (1997) conceptual point of view, social learning theory was determined to be within the scope of this finding as relates to core groups[i.e.] that influence behavior. Also social exchange theory was thought to be foundational in its contention that an individual associates with another if he or she thinks it will be rewarding. Reciprocity, typically seen in mentoring relationships, was also revealed as a key element of social exchange theory (Ensher, 2001). These conceptual elements were supportive of the participants' comments. However, there was no direct support for this finding as relates to leadership development particularly among women in academic medicine over time.

In summary, 16 women responded to this finding relating to peer-to-peer support that was supported by the literature. There was no theoretical support for this finding pursuant to women in academic medicine; however, evidence was presented to show how

peer-to-peer support contributed to participants' leadership development or career advancement over time.

Deans and other advanced leaders support. The second finding that emerged under the main theme of support for Sub-Question 3 was deans and other advanced leaders' support. Thirteen women divulged information about the support they received from their deans, chairs and other advanced leaders as relates to their leadership development and career advancement. According to Harris (2013), effective leadership essentially involves a leader's ability to influence the behavior of followers in pursuit of goals and objectives. McCauley (2001) added that it also involves providing experiences that require individuals to deal with challenges that are unique to higher level leadership roles and responsibilities. This idea was perceptible in Dr. Carolyn 97's comments on what led to an increase in her assignments. She gave this account of what happened after she came back from her second ELAM session with the new president: "...I used that as an opportunity to really do a de-briefing and ...kind of offer my services and moving forward in that role. He was extremely responsive and I was then put on a zillion committees in the institution..." Dr. Gail 97 made a similar comment when she talked about her relationship with her dean: "...the dean and he has made me a full partner... Yes, he's wonderful... I mean, there are days when I feel like co-dean... He wants very much to make sure that I get where I need to go..." It is obvious that her dean is very supportive and has taken on the role of sponsor in that it appeared that he's grooming her to assume his position when he leaves. Bandura (1997) posited that the impact of persuasory opinions on efficacy beliefs is apt to be only as strong as the recipient's confidence in the person who issues them. This confidence is mediated through the

perceived credibility and expertness of the persuaders (1997). Dr. Freda 99 gave testament to this point when she talked about the different leaders she met and gained an understanding of what they did: "...I had to meet the CIO, CFO, the operations officers, the legal officers, all these people... I got to know the dean and president much better and could talk with them about their work much better..."

O'Shea (2014) posited that developmental experiences can be extremely stressful, even when individuals are committed to their learning and growth. People experiencing them need opportunities to acknowledge and discuss their challenges and to come up with potential solutions. They also need clear communication of belief in their ability to complete the task, while emphasizing the growth already observed and the remaining opportunities for development. This concept resonated in the words of Dr. Harriet 96 who said this about her dean, "... my dean says it publicly all the time, and every time he introduces me to someone in a one on one or a small group situation he introduces me as being a rising star and a future leader of our college..."

With regards to Bandura's (1997) theoretical framework, a search of the literature showed no evidence of support in direct relation to this finding on deans and other advanced leaders' support and the construct of self-efficacy. However, Bandura's (1997) comments about the ability to persuade being only as strong as the confidence the recipient has in the persuader and their credibility and expertise, showed general support for this finding; albeit, no direct support for this finding was found, particularly as relates to women in academic medicine over time.

In summary, this finding, related to deans and other advanced leaders' support, was mentioned by 13 participants in this study. Their comments were substantiated by

the literature and found general support in Bandura's (1997) self-efficacy construct. However, there were no studies or articles showing direct support for this finding as relates to the leadership development of women in academic medicine over time.

Feedback. Feedback was the second and last theme that was presented as a finding in answer to Sub-Question 3 which asks, "How does verbal persuasion contribute to the leadership development of women in academic development over time?"

Feedback is simply information received about how one is doing in their efforts to reach a goal (Wiggins, 2012). According to Bandura (1997) "persuatory efficacy information is often conveyed in the evaluative feedback given to performers" (p. 101). He further asserted that people are inclined to trust evaluations of their capabilities by those who are themselves skilled in the activity, have access to some objective predictors of performance capability, or possess a rich fund of knowledge gained from observing and comparing many different aspirants and their later accomplishments (Bandura, 1997). In their various pursuits, people strive for certain goals or levels of competence and receive social feedback from time to time concerning their performances. These desired accomplishments are reached over time rather than fulfilled quickly. Performance feedback that focuses on achieved progress underscores personal capabilities. Learning environments that construe ability as an acquirable skill, deemphasize competitive social comparison, and highlight self-comparison of progress and personal accomplishments are well suited for building a sense of efficacy that promotes achievement (Bandura, 1997). O'Shea (2013) asserted that accurate and timely feedback is critical as aspiring leaders try to learn what skills they have improved and where developmental challenges remain.

Given the stress inherent in developmental experiences, though, it is important to be mindful about when and how such feedback is delivered.

These examples appeared to show how after receiving the feedback from ELAM on their personalities and or their leadership styles, the participants initially displayed some disbelief at some of the things they learned about themselves but after introspection, seemed to realize the need to work towards change. In terms of this finding over time, it appears that the change was they continued to work towards change.

In summary, overall, the comments made by the participants were substantiated by the literature. Conceptually, this finding was supported by Bandura's (1997) self-efficacy theory. Evidence was also presented to show no change over time, but rather, a constant movement towards personal and professional improvement that effect change in their leadership development.

Summary of findings for sub-question 3. This section answered the research question, "How do verbal persuasions contribute to women's leadership development over time?" The details described were related to two performance areas, which included two findings that surfaced under support as a means to operationalize the question. This section related peer-to-peer support, deans and other advanced leaders' support, and feedback to the verbal persuasion that contributed to the leadership development over time of the women participants in this study.

Sub-Question 4: Physiological States and Women's Leadership Development

This section discusses the interview analysis for sub-question 4: How do physiological states contribute to women's leadership development over time? The interview transcripts of the women were the main data source for this analysis and

statements representing this source of self-efficacy were presented in Chapter 4 and are represented here. The participants shared their own experiences. No themes emerged from the analysis of the participants' interview statements; therefore, a comparison of the physiological states comments across times and across interviews was not possible. Although the participants and their responses were few, the following analysis is presented in response to the sub research question.

As leaders ascend to more powerful positions, they face ever-increasing demands. As a result, there is a common perception that leaders have higher stress levels than non-leaders (Sherman, Lee, Cuddy, Renshon, Oveis, Gross & Lerner, 2012). Bandura (1997) described these physiological stress levels as how confident an individual feels by interpreting their own emotional and physical state as they consider an action. A study conducted by Sherman et al. (2012), using military officers and government officials, found that leaders holding more powerful positions exhibited less anxiety than leaders holding less powerful positions, suggesting a relationship between leadership and stress. To that end, Bandura (1997) asserted that reducing stress levels and negative emotional inclinations can modify efficacy beliefs and thus, improve performance. He also affirmed that "in many situations, people experience mixed emotions rather than a single one" (p.108).

In relation to Bandura's (1997) description of physiological states, five participants from Time 1 each made a statement describing their initial emotions in their situation and how they overcame those feelings. In her example, Dr. Brenda 97, who was chair of a department during her first interview, painted a picture of her situation and how her emotions connected to it. Prior to and immediately after ELAM, she used phrases

like, “I was very hesitant to...chair...looked like a tremendous responsibility...I was extremely nervous...” After taking over the position and receiving positive feedback from committee members, she appeared to be much more confident and said, “...I realized that I could do it and it was the skills of listening that were emphasized at ELAM...”

In describing her situation, Dr. Donna 96, who, at the time of her Time 1 interview, was a division director and president of the faculty senate, revealed that just a year prior to her interview, she would become emotional when receiving negative feedback, taking it personally, such that in that moment, she saw herself as a failure and had strong thoughts of quitting. However, a year later, she expressed some of those same feelings when she received her evaluation, but appeared to immediately gain control of her self-talk and said, “...that’s not really what I want, ... not really where my unique skills lie. I could do that... be happy, but I need to address these issues ... in a fair way and the staff will understand. I don’t think... as emotionally as I did before...”

As Associate Dean of Students when she had her first interview, Dr. Evelyn 97 expressed feelings of discomfort when dealing with conflict, but over time, seemed to have lessened the anxiety by using a more direct approach. Dr. Gail 97 was Vice President and Secretary of the University when she was first interviewed. Her anxiety situation appeared to come from needing to respond immediately to the highly irrational behavior of an individual. She responded by first processing what happened and appeared to immediately call upon her ELAM experience: “...it amazed me... maybe it’s a function of aging, I think it’s a function of experience and ... ELAM had to do a lot with it because I saw ... all of this kind of experience coming together in one moment.”

At her Time 1 interview, Dr. Maggie 96 was in charge of ... Education. Her anxiety appeared to stem from interacting with people more highly ranked than she; and for years, dealt with it by not dealing with it. After participating in ELAM, she decided to no longer be invisible; she initiated a meeting with her dean: "...So I called up and got an appointment with this man, now whether or not other people would realize what a change that is, I don't know. But it's a definite change, no doubt about it..."

The comments shared by the five women who responded to this question seemed to contradict Sherman et al.'s (2012) earlier assertion that leaders in more powerful positions are less stressed, particularly as relates to women leaders in a male dominated field. As with the other participants, these women dealt with the stressors of leadership daily. However, Bandura's position about reduced stress levels increasing self-efficacy, thereby, improving performance, appears to support the comments made by the participants. Each of the comments began with emotional cues relating to a particular situation. Over time, each participant appeared to gain control of their emotions and made the decision or initiated change, and took the action necessary to resolve the situation or move forward.

Summary of findings for sub-question 4. This section answered the research question, "How do physiological states contribute to women's leadership development over time?" Descriptive details were provided from the comments of 5 participants to operationalize the question. No themes or subthemes emerged under this sub question. This section related the comments concerning physiological states that contributed to the leadership development over time of the women participants in this study. This finding also supports Bandura's (1997) notion that this is the least important of the four sources.

Sub-Question 5: Other Experiences that Suggest Modifications or Extensions to the Theory

This section discusses the cross-interview analysis for sub-question 5: How do the experiences of these women extend or suggest modifications in Bandura's self-efficacy theory? The interview transcripts of the women were the main data source for the analysis. Statements representing these findings were presented in Chapter 4. The comparison of the "other experiences" statements were across Time 1 and Time 2 and included each of the classes was also discussed in Chapter 4. Three themes emerged from the analysis of the participants' interview statements relating to other experiences as follows: (a) doing things differently, (b) resilience, and (c) sponsorship. There were no subthemes.

Doing things differently. The first theme that emerged as a finding under Sub-Question 5 was doing things differently. There were 14 women who responded to this finding about making changes that would enhance their leadership development over time. They made mentions about embracing change to become better leaders, communicators, managers, administrators, and team builders. Northouse (2009) defined leadership as "a process whereby an individual influences a group of individuals to achieve a common goal" (p. 3). As a leader, part of that process involves a never ending practice of self-study, education, training, and experience (Jago, 1982) to improve their leadership skills. The women in this study received leadership training and education through the ELAM program that positioned them for the challenging experiences that leaders face daily in their organizations. To meet those challenges, the participants realized that there were certain things they had to be, know, and do (U.S. Army, 1983) to

be an effective leader while adapting to a constantly changing environment. With regards to the idea of being, knowing, and doing, the women talked about the changes they made to become better leaders and the things they did differently. For example Dr. Donna 96 said she had become a “better communicator;” Dr. Maggie 96 talked about “being more visible;” Dr. Earlene 96 mentioned “being more tolerant;” and both Dr. Gloria 99 and Dr. Janet 99 shared that they had become “better listeners.” On the subject of knowing, Dr. Earlene said, “I know that as far as dealing with things I’m able to set priorities better.” Dr. Irene 99 acknowledged that because of ELAM, she knows “that it is not necessary to please everybody to be successful in academics.” Concerning doing, Dr. Evelyn 97 mentioned that she dealt with conflict better and changed how she made personnel decisions; Dr. Abbey 99 stated that instead of getting defensive when given additional assignments, she “stay positive” and because of that, “the opportunities have been phenomenal here;” and Dr. Ellen 96 said, “...it’s been much easier to raise money for this center...much easier to find grant money to connect with national organizations that aren’t in my own discipline.” These participants’ comments are consistent with Kirkpatrick and Locke’s (1991) assertion that successful leaders are high achievers who obtain satisfaction from developing better ways of doing things and constantly striving for improvement.

Dr. Brenda 97 and Dr. Teresa 99 revealed some of the changes they made over time to further their development as leaders. Their examples are indicative of the comments the other responding participants shared in reference to the various changes they made over time to enhance their leadership abilities as well. Their comments found support in the literature as presented earlier in this finding.

In summary, from Bandura's (1997) conceptual viewpoint, self-efficacy infers that doing things differently to achieve positive results or to enhance performance is applicable to any domain generally, including leadership development. While Bandura's viewpoint does not include "doing things differently" as a source of self-efficacy, other literature support this notion, particularly as relates to leadership development. Notwithstanding, there were no studies or articles to support this finding of doing things differently pursuant to leadership development among women in academic medicine over time.

Resilience. Resilience was the second theme that surfaced under Sub-Question 5 with regards to other experiences that might inform self-efficacy theory. Luthans and Avolio (2003) asserted that developing the capacity for resilience is a vital component of authentic leadership development. They also posited that the application of leadership to resilience "has been largely ignored" (p. 255). Likewise, Sutcliff and Vogus (2003) declared that the study of resilience in organizations "has received little independent attention ... [and] is worthy of scholarly attention as it can provide insight into the etiology and course of positive adjustment or adaptability under challenging conditions" (p. 99). Scholars define the construct of resilience in a multitude of ways (Carle & Chassin, 2004). Richardson (2002) contended that resilience is "the growth or adaptation through disruption rather than just to recover or bounce back" (p. 313). Similarly, Higgins (1994) described resiliency as the "process of self-righting or growth" (p. 1), while Wolins (1993) defined resiliency as the "capacity to bounce back, to withstand hardship, and to repair yourself" (p. 5). Bandura (1997) asserts that because life is fraught with disappointments, adversities, failures, setbacks, frustrations, and inequities,

it takes a resilient sense of personal efficacy to supersede the obstacles to significant accomplishments. This pronouncement was found in the comments that the five responding women shared. In particular, they spoke about surviving challenges and being motivated; and gave examples of situations that required surmounting obstacles since ELAM.

The women's comments were proportionate to Bandura's (1997) perception that efficacy facilitates fast recovery from difficulties and reinstates self-confidence swiftly; thus, prohibiting self-doubt from setting in. This perception resonated in Dr. Abbey 99's viewpoint on resilience. She said, "...if other people say things that maybe seem like they are meant to be critical you know not to accept it and push it away and move forward. That kind of thinking is definitely since ELAM." Dr. Gail 97 shared these comments about her understanding of what being resilient meant to her: "...some of the things I take away from the ELAM experiences is a deeper understanding and a commitment to understanding the influences of patriarchy and power and the resilience you need to stay in the game against those very negative influences..."

London (1983) asserted that career resilience is the ability to adapt to changing circumstances, even when circumstances are discouraging or disruptive. To this point, Dr. Janet 99 made these remarks when talking about the challenges she faced when her dean asked her to move into a position that was already occupied: "...I did manage through that ... There were some rough moments... we did it basically nicely, honestly, nicely and slowly, and in a way where a lot of people got a lot of feedback along the way... Dr. Janet 99's comments found support in Lengnick-Hall and Beck's (2003) contention that resilience includes the "ability to turn challenges into opportunities" (p. 8)

and to “more than bounce back from the edge of catastrophe...to move forward with even greater vigor and success than before” (p. 4).

While only 5 of the participants in this study responded to this finding, the difficulties of working in a male-dominated profession like academic medicine, suggest that the other 14 participants had undergone challenges that would test their resilience as well. Their achievements also suggested that they rebounded to growth in their leadership development and greater strength of resolve to accomplish personal and professional goals. Thus, it is fitting that Sutcliffe and Vogus (2003) would define resilience as “having the capacity to emerge from adversity strengthened and more resourceful” (p. 97). On the other hand, Schein (2004) suggested that effective leaders embrace errors as a way of developing resilience; he posited that a lack of recovery from conflict or the failure of systems to be resilient is disruptive to the organization and devastating to the individual. The reverse would seem to be true for Dr. Irene 99 when she gave her Time 2 interview. Her comments gave the appearance of one who, after overcoming positional and career challenges, had emerged a stronger and more resilient professional because of it. Consistent with the conceptions of Sutcliffe and Vogus (2003), her remarks seemed reminiscent of what happened years prior; and having recovered, she decided to accept a position that could benefit from her knowledge, skills and experience. She said this was “...a nice kind of culmination of that talent so I took that position in the summer of '02 and really ...within that year, they moved to get rid of the interim title faster than I was ready to...” Dr. Irene 99's comments also illustrate Schein's (2004) point that the nature and complexities of all organizations have changed; thus, the expectations for people to rebound from failures or problems have increased.

These expectations further imply that leaders must quickly learn from problems and take the organization in the direction that will most benefit it after the problem or failure has been resolved (Schein, 2004).

Resilience was substantiated by the literature as indicated throughout this finding. Further, the literature was consistent with the participants' comments. Nonetheless, there were no studies or articles that were directly related to resilience as pertains to the leadership development of women in academic medicine over time.

While Bandura (1997) made assertions about the concept of resilience in terms of overcoming obstacles, his perception focused on self-appraisal as a source of discordance between efficacy judgment and action rather than as a source of self-efficacy in itself. His perception could be applicable to many domains. However, it was revealed that the literature was scant in its application of resilience to leadership in organizations (Luthans & Avolio, 2003; Sutcliff & Vogus, 2003). This study provides an opportunity to extend the literature on the subject by including resilience as a source of self-efficacy. To that end, there were no studies or articles that directly applied Bandura's perspective of resilience to women leaders in academic medicine over time.

In summary, the five women in this study who responded to this finding shared comments about resilience from the standpoint of lessons learned from past experiences, support from ELAM alumnae and others, difficult moments, and emotional fortitude. Overall, this finding was supported by the literature; and evidence was presented to show that sustained resilience contributed to leadership development over time. However, there was no direct theoretical support for this finding, particularly as relates to the leadership development of women in academic medicine over time.

Sponsorship. The third and final finding that surfaced under Sub-Question 5 was sponsorship. Six women responded to this finding and made mentions about sponsorship from the perspective of advocacy and the support they received. According to Foust-Cummings, Dinolfo and Kohler (2011), for years, organizations and leaders ascribed women's inability to ascend to top positions to a lack of mentoring. However, after focusing on mentoring, specifically for women, there has been no increase in the proportion of women in leadership. Central to the current discussion around mentoring is how it is necessary for development, yet insufficient for advancing to the senior-most levels (Bickel, 2014). Recent research is directed towards sponsorship as a more influential and specific professional relationship (Foust-Cummings et al., 2011; Kram, 1985). A *Harvard Business Review* article described sponsorship as "active support by someone appropriately placed in the organization who has significant influence on decision-making processes or structures and who is advocating for, protecting, and fighting for the career advancement of an individual" (Ibarra, Carter & Silva (2010, p. 80). In particular, a sponsor is someone who is highly respected and powerful in his or her profession and puts their reputation to work for an individual by vouching for their capabilities and influencing personnel decisions (Hewlett, 2013). Dr. Evelyn 97 illustrated this concept in her comments with a colleague who was promoted to a higher position: "...my colleague in pediatrics...has been doing this TV spot ... he couldn't do it so he asked me now probably over two years ago whether I'd like to do it ... and I said yeah, sure. I would love to do it." This statement agrees with Kram's (1985) earlier assertion that sponsorship activities by the mentor are direct interventions intended to provide the protégé with opportunities to advance within the organization. This notion

was captured in Dr. Harriet 96's expression about how, after ELAM, her dean had begun to present her as a leader. She said, "...my dean going around now introducing me as a leader... if he survives as dean long enough he will see me in some sort of leadership position. I really think he'll do it, I think he'll follow through..." She said she thought the sabbatical was a way of grooming her to meet the right people and get to know her. Her statement also found support in Slaughter's (2012) pronouncement that "high potential women need sponsors who will not only provide advice but also actively create opportunities to shine and advance."

Catalyst (2011) research has shown that when women's mentors, more correctly called sponsors, are highly placed, women are just as likely as men to get promoted. To that end, sponsorship ensues when those in positions of influence see outstanding work from and potential in, an employee, so much so that they want that person to have greater opportunity to excel. Such was the case when Dr. Janet 99, although satisfied in her position as associate dean of professional affairs at the time, was asked to assume additional responsibilities after other promotions within the department left a critical need vacancy. Having no luck in filling the position, over time, Dr. Janet 99 agreed to take on the responsibilities after negotiating a restructuring that added the vacant position to her responsibilities. Her dean persisted over time in asking her to assume the position. Ultimately, she agreed, after negotiating a merger such that "professional affairs is now together with medical education and that's why it's called academic affairs. So now I oversee the whole thing".

Sponsorship, thus, appears to be a necessary and powerful means to overcome the barriers that women still face in reaching the highest organizational levels in meaningful

numbers. Sponsors also provide needed guidance around opportunities necessary to a protégé's desired career path. For example, Dr. Gail 97 shared how her dean was positioning her to assume his position when he finished. This how she described the experience with her dean: "...what can we do to make... you as competitive as possible for the dean's post here when I'm finished;... every three or four months, he's checking in, making sure I'm being challenged and wanting to stay..."

In sum, the comments presented were substantiated by the literature. As to theory, there were no studies or articles that supported Bandura's conceptual framework relating to sponsorship as a source of self-efficacy for leadership development, especially pursuant to women in academic medicine over time. Therefore, this finding informs Bandura's (1997) self-efficacy theory by providing evidentiary support for the expansion of self-efficacy theory.

Summary of findings for sub-question 5. This section answered the research question, "How do other experiences inform self-efficacy in relation to the leadership development of women in academic medicine?" Descriptive details were provided about the three thematic topics that emerged as a means to operationalize the question. This section, related doing things differently, resilience, and sponsorship to behaviors that contributed to the leadership development of women in academic medicine over time.

Section Summary

In summary, this section was presented to answer the overarching research question, "How is self-efficacy connected to the leadership development of women in academic medicine over a multi-year period following their participation in a specialized leadership development program?" To answer the main question, this section provided a

summary of the themes that responded to each of the five research sub questions followed by a detailed discussion of the results for each sub question that included an integration of the literature. Four of the sub questions were related to Bandura's (1997) four sources of self-efficacy. The fifth sub question comprised three themes (doing things differently, resilience, and sponsorship) that surfaced as potential modifiers to self-efficacy theory and, collectively, were common to 16 of the 19 participants in this study.

Discussion of the Five Major Findings

Five major findings were identified during the data analysis that serve as the interpretive baseline for discussing how self-efficacy is involved in the leadership development over time for women in academic medicine, using Bandura's self-efficacy conceptual framework. The following sections address how the data from this study (a) support, (b) refute, or (c) extend self-efficacy theory in explaining each of these themes. What follows is a discussion of the study's five findings.

Finding 1: This Study Supports Each of Bandura's Four Sources Of Self-Efficacy

All were present in the interview data of the study participants: performance accomplishments, vicarious experiences, verbal or social persuasion, and physiological states. The findings varied in robustness in terms of the number of mentions; however, the participants' comments were surprisingly strong given that this was a secondary study that used an interview protocol from a previous project with a different focus. Moreover, noticed throughout the analysis was participants' invariable mention of more than one theme within a theme as they told the story of their experiences (i.e. delegation and negotiation or internal and external networking); thus, adding to the robustness of this finding. The fact that this was a secondary study of 19 women in academic medicine that

generated over 1000 comments, 395 in Time 1 and 609 in Time 2, directly related to these four sources speaks volumes for the implications of self-efficacy theory.

Self-efficacy theory is a proposition for consideration in all areas of leadership development, regardless of gender, but of particular significance to women who are constrained in a labyrinth of glass ceiling ideologies and the inequalities of a male-dominated workplace (Morahan et al., 2011; Pololi et al., 2012; White et al., 2012). Thus, the message of self-efficacy development is far reaching for college and university faculty and administrators, and students who will be facing the challenges of a global society. The message is important for local, regional, national, and international organizations, small businesses and large corporations who are interested in creating high performing, confident women leaders, endowed with personal satisfaction and professional prowess. The benefits would be enormous for the economy and society at large. The researcher recommends that various overt manifestations of self-efficacy theory be included in conferences, workshops, meetings, and college curricula, so that it is clear that the self-efficacy of girls and women is the focus of dialogue and action.

Finding 2: The Most Robust Evidence of Self-Efficacy was Found in the Performance Accomplishments Self-Efficacy Source

In considering each of the four sources of self-efficacy, the data clearly illustrated that performance accomplishments was the most robust of the sources. This was evidenced by the fact that all 19 participants in every class and in both interview times mentioned performance accomplishments 470 times, more than any of the other three sources. The comments related to decision-making, goal setting and six skill development areas (negotiation, delegation, budget and finance, communication, political

savvy and enhancing leadership generally). Vicarious experiences followed with 316 mentions, verbal persuasion with 140 mentions, and physiological states with the least, five mentions. This hierarchical presentation of self-efficacy sources was consistent with Bandura's (1997) assessment of the level of effectiveness of each source as discussed in Chapter 2.

This finding is important because it demonstrates that performance and positive outcomes are critical to the success of any person's career, and perhaps especially for women working in a male-dominated environment. If women are going to have opportunities to compete in such an environment, they must possess and continue to improve the skills these 19 women revealed. The women in this study understood this notion as their mentions in performance accomplishments went from 155 in Time 1 to 315 in Time 2, an increase of 103 percent. The message here is that these 19 successful women in academic medicine have provided an outline, using Bandura's (1997) constructs, to inform women interested in their development as leaders to pay attention to their performance accomplishments, particularly in the six areas of skill development they revealed.

Finding 3: There was Development of Self-Efficacy over Time

The main research question and four sub questions inquire about the notion of self-efficacy and leadership development over time. As described in Chapter 4, each woman participated in two interviews at two different points in time, 0-13 months (Time 1) and 5.5 years (Time 2) after completing the ELAM program. As mentioned earlier, the table in Appendix Q shows the number of mentions each participant made for each question per theme at each time period, providing a visual of the number of comments

made over time. Moreover, as shown in Table 22, except for verbal persuasion and physiological states, the women were more engaged with each theme in their Time 2 interviews than in Time 1.

It is worth noting that in the analysis, many of the women’s comments made reference to “over time” even though they only mentioned in the Time 1 interviews. Participants appeared to interpret ‘over time’ to mean from the time they completed ELAM to the interview at Time 1 and or Time 2.

There were instances when no responses were revealed for entire classes or were sparse. Several factors might be attributed to this observation. One, depending upon Table 22

Summary of Mentions over Time by Self-Efficacy Source

Self-Efficacy Source	Number of Mentions		
Time Levels	Time 1	Time 2	%Difference
Performance Accomplishments	155	315	103%
Vicarious Experiences	123	193	57%
Verbal Persuasion	84	56	33%
Physiological States	5	0	-1%
Other Experiences	28	45	61%
Total	395	609	54%

their position, some of the participants may not have needed to make mention because they had the skills they needed or it did not apply to their current positional role. Two, they were still working through certain skills or knowledge issues and just chose not to disclose. Three, the focus was on issues related to the previous research and so, did not elicit a direct response in relation to the themes revealed for this study.

The idea of women developing their self-efficacy over time is important and offers encouragement to the aspiring women leaders in academic medicine and other professions who are concerned about the challenges of their future as leaders in a male-dominated field. The message from this research is that it is important to continue developing and enhancing skills; to continue networking and cultivating friendships within and outside of the work environment; to continue seeking support and mentoring from people who understand their goals; to ask for and accept feedback on behaviors and skills that need improvement; to identify and observe role models similar to and different from themselves; to continue positioning themselves so that other leaders will recognize their hard work and help advance their careers by becoming sponsors; to continue striving to know more, to be better, and to do better; and finally, to continue to be resilient and laser focused on goals. As demonstrated by the 19 highly accomplished participants in this study, it is doing these things consistently that over time, will reap the outcomes that they hope and strive for in their personal lives and professional careers.

Finding 4: The Research and Subsequent Analysis of Findings Extend Bandura’s Previous Research Domains to Include another Demographic, Women in Academic Medicine

This group had not previously been explored over time. As stated in Chapter 2, numerous studies have been conducted on self-efficacy in other settings including studies related to performance. Studies cited in Chapter 1 suggested that self-efficacy and performance strengthens over time (Vancouver et al., 2001; Yeo & Neal, 2006) which is congruent with the findings of this study. Other studies found that it weakens (e.g. Mitchell, Hopper, Daniels, George-Falvy, & James, 1994); which was contradicted in this

study. Other studies found no change over time (Lee & Klein, 2002; Vancouver & Kendall, 2006; Vancouver, Thompson, Tischner, & Putka, 2002), which is not congruent with this study as performance was the most robust of the findings in terms of change over time. Additionally, consistent with the results of this study, the four studies presented and critiqued in Chapter 2 related to other women professionals (Acebo, 2008; Garmon, 2008; Powell, 2011; Younger, 2002) concluded that self-efficacy contributed to their leadership success. However, Garmon's (2008) results showed that participants relied primarily on verbal persuasion and vicarious experiences as the dominant sources of self-efficacy rather than mastery experiences (performance accomplishments) and vicarious experiences which were dominant in this study.

Only one empirical study (Sloma-Williams, et al., 2009) was found in the existing literature that examined the role of self-efficacy and women in academic medicine; but that study addressed this population at only one point in time. The Sloma-Williams et al. (2009) single-case study explored contributions of the ELAM Program for women on increasing self-efficacy beliefs among participating Fellows; the researcher found no other studies that addressed this dearth in the literature. The authors' (2009) study found that in regards to mastery experiences (performance accomplishments) nearly 82.9% of interview participants reported an increased sense of on-the-job capacity resulting from the practical skill development they received through the ELAM program. Seventy-one percent (71%) indicated that vicarious experiences and social modeling opportunities were very helpful in terms of improving their self-efficacy development related to leadership. With regard to verbal persuasion, the scholars found that 49% of ELAM Fellows reported that they received external validation of the leadership abilities

developed from participation in the ELAM program. In regards to self-awareness and perception of themselves, (Bandura's psychological and affective states), 67% of Fellows noted increases in their leadership abilities.

Overall, this study found similar results to the Sloma-Williams et al. (2009) study pertaining to mastery experiences and vicarious experiences, validating Bandura's ranking of importance in the sources. The latter two that were lower ranked, verbal persuasion and physiological states, were reversed in order in this study, could be attributed to the population sample and the collection of data at one versus two points in time which would determine the amount of material available for analysis. The Sloma-Williams et al. (2009) study laid the foundation for further study upon which this study was grounded. Both studies, conducted using the secondary interview data of ELAM alumnae from the Classes of 1996, 1997, and 1999, showed the significance of self-efficacy theory to the leadership development of women academics in medicine and its implications for other women professionals.

The exploration of self-efficacy within this class of women could accelerate the leadership development of women leaders, resulting in more women at critical positions in the leadership pipeline and thus, an increase in the decanal positions in academic medicine; more senior-level positions in higher education; and more CEO promotions in organizations and corporations.

The current study addressed a gap in the literature by examining how self-efficacy influenced the leadership development of women in academic medicine at two different points in time.

Finding 5: Bandura's Self-Efficacy Sources May Need to Be Expanded

Included in the 1004 comments made by the 19 study participants related to self-efficacy were three subthemes that emerged as outliers to Bandura's (2009) four sources of self-efficacy: doing things differently, resilience, and sponsorship. While these subthemes appear to be natural actions, behaviors or occurrences in leadership development, there were no studies that specifically addressed these phenomena in relation to women leaders in academic medicine in general or over time. It is imperative for novice as well as experienced leaders to recognize the importance of staying abreast of trends within and outside of their work environment so that needed changes (doing things differently) can be made to enhance organizational functioning and promote performance accomplishments that could ultimately lead to career advancements. The world is filled with people who gave up on their dreams or desires because they could not or would not persevere through the difficult times that seemingly are a part of achieving success; thus, resilience seems to be a critical component of women's leadership success and should be included in leadership development programs and other venues that require this strength of character.

In fact, the researcher believes that it is so significant that the definition of self-efficacy should be modified to state, "self-efficacy is a person's belief about their ability to organize, execute and *sustain* the courses of action required to produce given results" because many people organize and execute courses of action, but there are countless numbers of people who are unable to sustain that action to achieve the results they desire. The findings in recent literature show that high potential women also need sponsorship to influence and help promote the next level of their leadership career. These subthemes

offer possibilities for expansion of self-efficacy theory through further research in these areas.

Section Summary

In summary, this section discussed the five key findings presented as a baseline for interpreting the main research question. The findings showed robust support for each of Bandura's four sources of self-efficacy with performance accomplishments emerging as the most robust of the sources; an increase in self-efficacy over time; expansion of research domains to include women in academic medicine; the need for extension of self-efficacy to include three new sources that add to the body of knowledge related to this theory. This section also addressed the importance of these key findings to various leadership development venues and their potential participants.

Proposed Self-Efficacy and Leadership Development Model

In addition to supporting and extending Bandura's (1997) self-efficacy framework, the findings of this study led the researcher to create a proposed self-efficacy and leadership model. This model synthesizes the shared themes and subthemes as findings that relate to their connection between self-efficacy and the leadership development of women academics in medicine after participating in the ELAM Program. These findings might be of use to other academic institutions or organizations in developing leadership programs. The proposed model creates fusion between the thematic findings presented in the cross-case analyses and is entitled: Proposed Self-Efficacy and Leadership Development Model (see Figure 1). The color representations are: (a) the larger circles in various colors represent the sources of self-efficacy and other

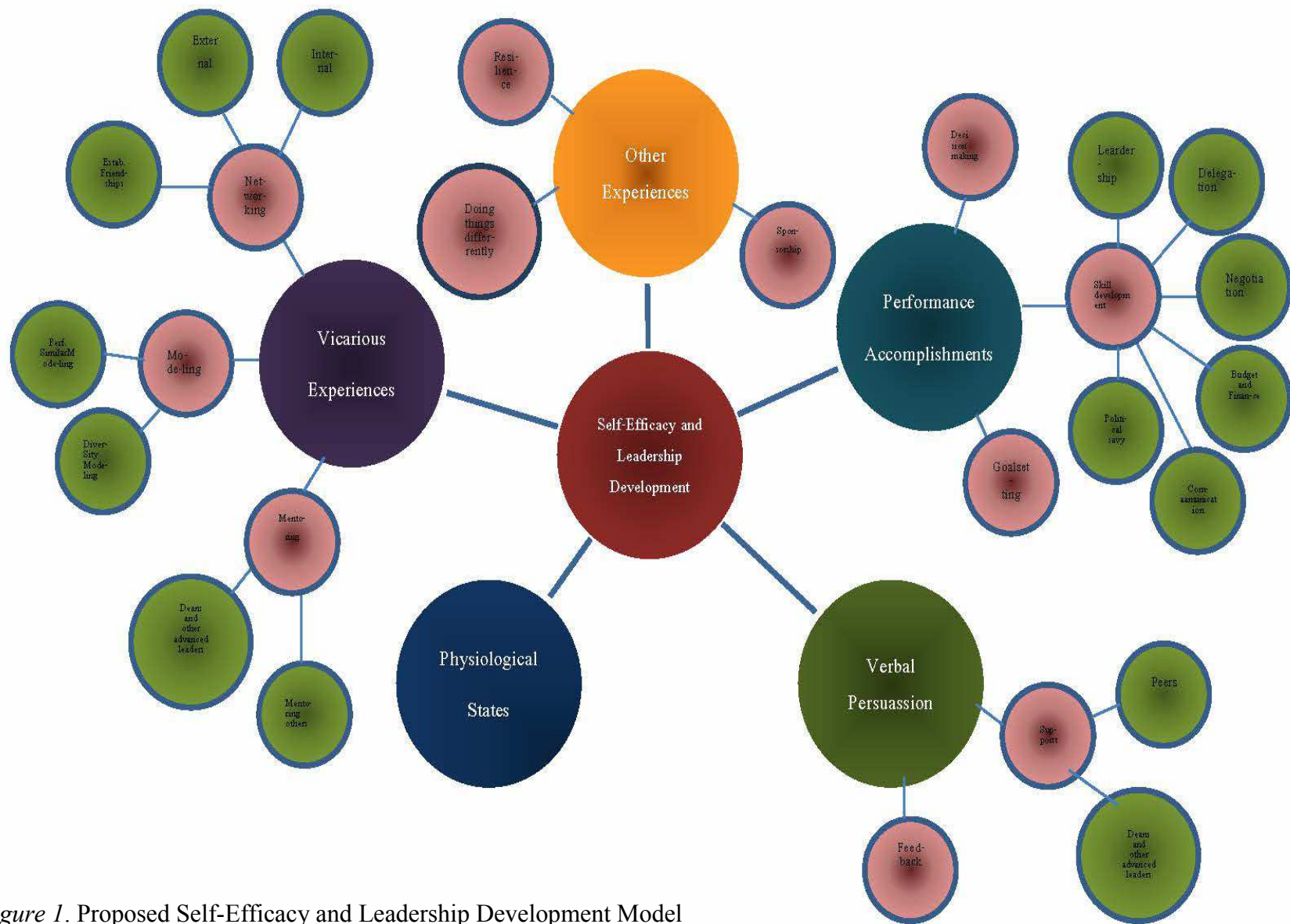


Figure 1. Proposed Self-Efficacy and Leadership Development Model

experiences that might expand self-efficacy theory; the large middle circle symbolizes the focus of the study. The pink circles represent the main themes identified within the sources of self-efficacy and other experiences. The smaller green circles represent the subthemes that emerged from the main themes.

Summary of the Proposed Model

This proposed self-efficacy and leadership model presents 15 thematic ways in which women in general, and in particular, women in academic medicine can enhance their leadership abilities through participation in a specialized leadership development program. It provides a detailed starting point by identifying numerous ways in which women can operationalize their leadership development.

Strengths of the New Model

The strengths of this new model are several. First, it provides a snapshot of Bandura's four sources of self-efficacy tailored to the women in this study and transferable to other women in academic medicine and women professionals in general. Second, it could, in fact, be considered gender neutral as all of its components are relevant to the leadership development of men and women professionals. Although the topics are specific to the challenges of women, particularly those who work in male-dominated fields, the topics could be included in any leadership development program. Third, it provides a composite of what could be deemed the antecedents for success as this study focused on successful women leaders in academic medicine who have already reached or are aspiring to their next tier of leadership. Fourth, women could understand, and strategize steps for elements in this model. For example, the novice woman in academic medicine or any profession, looking to develop or enhance her leadership skills,

could determine from this conceptual model exactly what she needs to do to position herself for a leadership career, all the while, enhancing her self-efficacy. She could then follow up with identifying a leadership development program, like ELAM, that would help her actualize the components of the model; thus, beginning or furthering her leadership career. Fifth, it is a blueprint for success inspired by the stories of the 19 participants in this study, who, through their willingness to share their thoughts and experiences, before and after ELAM, could inspire other women leaders to pursue higher career goals. Lastly, and importantly, this model takes an abstract concept like leadership and gives it focused form. It also includes three new important topic areas for leadership development curriculum.

Critique of the Proposed Model

This introduction of a new conceptual model offers a different way to think about the leadership development of women in academic medicine. However, as with all new models, there are weaknesses. First, because it was developed based on the collection of themes that emerged across the 19 study participants, it does not contain all of the descriptive richness that surfaced within each participant's story. Further, because the model was constructed from secondary data that did not initially focus on the connection between self-efficacy and leadership development, other topics and themes that would likely emerge are not included. Second, the model is based on a qualitative study; therefore, the themes have not been analyzed using quantitative experiential techniques. That is, the validity of self-efficacy and the leadership development of women in academic medicine have not yet been tested using a quantitative element of inquiry. The question yet exists as to whether some themes of self-efficacy sources are more essential

than others; and if so, what is the hierarchy and in what context do they persist? These could be addressed in future studies. Third, while this study focused solely on women in academic medicine and thus, the model reflects this group's leadership development, the conceptual model could be extended to examine other leadership groups. For example, it could be applied to women in postsecondary and graduate institutions, diverse organizations that espouse women's professional development, and community colleges and universities.

Practical Implications

This study addressed the problem of practice, which was: despite the fact that women have reached parity in entering and graduating from medical schools (AAMC, 2014), the percentage of women who advance to leadership positions is small. The practical implications includes three categories: (a) a focused approach on self-efficacy and leadership development by women in academic medicine; (b) existing and aspiring women leaders in academic medicine and other male dominated professions; and (c) inclusion of self-efficacy in leadership development programs.

A Focused Approach on Self-Efficacy and Leadership Development by Women in Academic Medicine

Generally, this study has provided descriptive details that allow for increased knowledge and understanding about an element pertaining to women in academic medicine that had not yet been explored. This study provided evidentiary support for the explanation of how self-efficacy is involved in the leadership development of women in academic medicine over a multi-year period of time after participating in ELAM, a specialized leadership development program. It revealed 15 sources of self-efficacy that

were consistent with Bandura's (1997) theoretical framework and included three new sources that propose to extend self-efficacy theory in a focused approach to the leadership development of women in academic medicine over time. Overall, the literature of practice and empirical studies have substantiated the importance of self-efficacy to leadership development, including one study that examined women academics in medicine at a single point in time (Bartol & Zhang, 2007; Catalyst, 2011; Center for Creative Leadership, 2014; Helitzer et al., 2014; Kram & Isabella, 1985; Sloma-Williams et al., 2009). However, the literature included no empirical studies that explicitly investigated the leadership development of women in academic medicine over time. Therefore, this study extends the theoretical literature by providing a rich description of self-efficacy and the leadership development of 19 women in academic medicine after their participation in ELAM.

Existing and Aspiring Women Leaders in Academic Medicine and other Male-Dominated Professions

The pipeline in academic medicine is replete with qualified women interested in attaining leadership positions; yet, they continue to be deterred by the stereotypical behaviors and systemic ideologies intrinsic to this male-dominated field (Morahan et al., 2011; Pololi et al., 2012; White et al., 2012). The slow progression to leadership ranks and promotions is often times discouraging. It is those women in academic medicine as well as women in high status professional fields who may benefit from reading how the women of this study grappled with and grew in their own leadership development over time despite the challenges. It is those women who will benefit from the rich descriptions of the study participants' experiences and how they grew personally and professionally

through the instructive learning they received and the empowering interactions they engaged as participants of the ELAM program.

The findings in this study showed that the participants' achievements in leadership resulted from their sustained effort over time to continue building and expanding upon their performance accomplishments, particularly as relates to skill development. The proposed self-efficacy and leadership development model generated from the results of this study provides a comprehensive outline for the pathway to leadership development, positional promotions and career advancement in male-dominated fields and professions.

Inclusion of Self-Efficacy in Leadership Development Programs

The findings of this study advocate for the explicit inclusion of self-efficacy in the curricula of leadership development programs for women in academic medicine and for women professionals in general. These programs may benefit from introducing the concepts of self-efficacy and practical strategies for attainment as a part of the curriculum; thereby, participants can become more aware of their leadership development process and the support that can help with improving their leadership development. If people are aware of these concepts and practical strategies, they may be more comfortable with using them, seeking out support and specific experiences to enhance their self-efficacy.

The results of this study indicated that participants showed a strong penchant for prolonged or sustained ability to persist when challenged in their role as leaders or in task completion relating to personal or organizational strategies and goals. Thus, an extension of leadership development programs to include the four sources of self-efficacy and the

three new source areas of doing things differently, resilience, and sponsorship could extend women's education in leadership development, better preparing them for the challenges of leadership. The "seven" sources of self-efficacy could be integrated into a comprehensive leadership development program. It should be noted that while performance accomplishments is the most prominent of the sources, all of the sources work interdependently to foster success as evidenced by the overlap in participants' comments.

The focus of this section was on the practical implications of this study as relates to the problem of practice relative to women in academic medicine.

Critique of the Study

While every effort was made to design a study that has high credibility, embedded in every study are some limitations. This section explores strengths and weaknesses of the study that affect credibility as well as issues relating to transferability.

Strengths

Overall, the study was thorough and carefully designed. There were seven notable areas that stand out as strengths that contributed to its rigor: participant selection, paradigm of inquiry, research design, transferability, planned data analysis, data analysis mechanism, and theoretical application.

Participant selection. The sampling approach for a qualitative research investigation is contingent upon both the nature of the problem and the purpose of the study (Patton, 2001). The purposeful sampling strategy used for this study comprised an overall population of all senior women at the associate and full professor ranks who were employed in academic medicine with a focus on developing their leadership ability.

Consequently, alumnae Fellows of the ELAM Program were chosen for this study for the distinct purpose of eliciting the perception of senior women in academic medicine. Further, the stratified purposeful sampling allowed the researcher to identify rich descriptive interviews by selecting participants who had participated in the interviews and had at least had two touch points. The participants selected for this study were a strength as they were the most appropriate participants for the study when, otherwise, finding such women would have been very difficult using any other type of sampling strategy. The participant selection was a strength because all the participants were women in academic medicine who had participated in at least two of the interview data points.

Paradigm of inquiry. The paradigm of inquiry was a strength because from a constructivist point of view, the researcher benefited from the participants' constructed knowledge of how they made sense of their ELAM experience through active engagement with their environment. Findings were revealed through the interaction of language and knowledge in a social situation (ELAM Program). Through participants' constructed knowledge, the researcher was able to probe for rich, thick descriptions to garner deeper meaning of their self-efficacy development. Thus, the chosen paradigm of inquiry was particularly well suited to this project.

Research design. The qualitative research design was a strength for this study. In particular, qualitative content analysis was the chosen methodology and was appropriate for answering the primary question: "How is self-efficacy involved in the leadership development over time of women in academic medicine? The specific strengths of content analysis relative to this study included the fact that because the data

used were from a previous study, it required no contact with participants which reduced bias. It was also “extremely useful” as a means of analyzing secondary interview data over time as well as being cost effective for the researcher. Moreover, the data are readily available for replication by future researchers which enhances credibility and also bolsters dependability.

The study employed three types of triangulation: time, data source, and peer debriefer. Noted in Chapter 3, the data were collected at two different points in time; the data source involved the viewpoints and experiences of 19 participants from three different classes; and the peer debriefer provided insight, challenging queries, support and constructive feedback. Lincoln and Guba (1985) have declared that credibility and dependability are closely aligned and argued that a demonstration of credibility does much to ensure dependability. To that end, the researcher believes that the measures of credibility and dependability have been met.

Transferability. Transferability is the extent to which the findings of the study can be relevant or transfer beyond the bounds of a project (Fraenkel et al., 2012; Lincoln & Guba, 1985). The content analysis research design allowed for rich, thick, descriptions of the expressions of 19 women in academic medicine and extensively used their voices to provide sufficient contextual information in order to facilitate the reader’s determination as to the extent to which they feel the findings are transferable to their setting or group. Transferability is important because the project information can be used to expand the study of women’s leadership in academic medicine, in general, and or over time. It is important because it adds to the body of knowledge and fills a gap in the literature on how self-efficacy influences leadership development, not just for the genre

of women in this study but for women professionals everywhere. It is important because the study generated a conceptual model that can be used to develop or improve women's leadership development programs across the nation and around the world for faculty, presidents, chancellors, and other women professionals in colleges, universities, organizations, institutes, and corporations where women's leadership desires persist but are stymied by the challenges of male dominated work environments. It is for these reasons, that the researcher made a valiant effort to ensure transferability.

Planned data analysis. Another major strength of the study was the planned and organized analysis process designed and executed by this researcher. The specific methods were well documented, used rigorously, and could be replicated in future studies with the expectation of accessing similar information.

Data analysis mechanism. This researcher chose NVivo 10 software to support the coding process which was a major strength of this study. Given the strict time constraints, using the NVivo 10 computer software program saved time, increased flexibility, reinforced ease with dealing with the large quantity of data and facilitated the capturing of rich, thick data for analysis. It allowed the researcher to code the data, retrieve text based on key words, rename, or merge existing codes without disturbing the rest of the codes, and generate visualizations of emergent codes and their relationships to one another. Specifically, the visualizations component allowed the researcher to see quotations from the interview data laid out as though they were note cards. NVivo 10 also assisted the researcher in maintaining automatic logs of coding changes, which made it possible to keep track of the evolution of the analysis.

Theoretical Applications

This study provided descriptive information about the leadership development of women in academic medicine as they aspired to advance their careers and assume leadership positions in this male dominated field. The findings of this study addressed the problem of research—that the existing literature is deficient in studies that focus on the exploration of self-efficacy and how it influences the leadership development over time of women in academic medicine. This study has spawned theoretical implications for the self-efficacy framework, for women in postsecondary and graduate colleges and universities, diverse organizations, and for the use of content analysis as a constructivist lens to view qualitative leadership research.

The self-efficacy framework proved to be a valuable tool for the descriptive analysis in the context of academic medicine. This framework had yet to be applied to higher education in general; and only once to academic medicine in particular. Specifically, there was only one study that applied Bandura's (1997) self-efficacy frame to the leadership development of women in academic medicine. The insights into the application of the qualitative components of this framework contribute to the literature by providing a breakdown across two specific points in time, and placing evidence of the framework within a specialized leadership development program in the context of academic medicine. This study identified this framework as an applicable tool to examine this leadership demographic as it encompassed leadership as well as contextual influences. Thus, this study provided data and analysis to further comprehend Bandura's (1997) self-efficacy framework in the context of academic medicine.

The appropriateness of this theoretical framework for this study speaks to the magnitude of its importance for leadership development. It could be purposed to structure leadership development training or doctoral level instruction in higher education administration or educational leadership. Comparable to other models (i.e. the four leadership frames of Bolman and Deal, 2003), self-efficacy would be useful to incorporate into postsecondary and graduate class curricula on leadership as well as in professional development training. The four sources of self-efficacy along with the three new sources would provide another means of considering leadership development.

Limitations

Effective researchers acknowledge the constraints and limitations of their research. Therefore, in addition to the four limitations presented in Chapter 1, this section presents areas in which this study could have been improved: data collection, qualitative method, and content analysis.

As stated in Chapter 1, there were four limitations that affected this study. The first was related to the possibility that participants' previous experience and knowledge of self-efficacy development may have biased the study. Mitigation of this limitation was rooted in the fact that the researcher used secondary data from a previous study wherein the participants' responses to the interview protocol concerning their ELAM experiences were, in all likelihood, unconscious and coincidental to Bandura's (1997) theory of self-efficacy. Several of the interview questions addressed such topics as relationships, leadership and or management skills, support, mentorship, and leadership development. The open-ended protocol and the follow-up questions, surrounding these and other

related topics, elicited stories and descriptive responses that were sufficiently expansive to include the constructs of self-efficacy, in particular, the four sources.

The second limitation was the results are based upon self-reported perceptions of the study participants and their truthfulness. This limitation was tempered by the detailed appearance of frankness of the participants' statements and the parallelism of their comments. Further, the participants were not aware, during their interview for the primary study that their comments would be used to conduct a secondary study on self-efficacy and leadership development as that determination had not been made.

The third limitation was that the current researcher did not conduct the interviews. This may have been a concern if the interview protocol had been specifically directed towards self-efficacy which was not the case. However, characteristic of content analysis, this study used the only existing data set from a previous research project that focused primarily on the leadership development of the participants as a means of gaining insight into the effectiveness of the ELAM program. That said, the limitation was mitigated by this researcher having access to the primary researcher as her dissertation chair as well as access to the interview protocol, raw data, data collection procedures, and the methodology used to conduct the primary study. Thus, this data source credibility strengthened the dependability of the study.

The last limitation presented in Chapter 1 was the interview protocol did not specifically ask about the constructs of self-efficacy, limiting participants' ability to respond to questions directly related to the four sources of self-efficacy. As stated earlier, because the primary study focused on topics like leadership development, the interview protocol included questions that indirectly elicited responses that were relevant to self-

efficacy theory. Thus, tempering this limitation were many thick, rich descriptions of participants' thoughts and experiences that could be attributed to the four sources of self-efficacy. However, in some instances, the comments yielded only one or two comments over time within a theme or subtheme. Further, the self-efficacy source of physiological states yielded no themes or subthemes across interviews and points of time. Mitigating that was Bandura's (1997) assertion that physiological states was the least important determinant of the four sources. Nonetheless, an interview protocol with specific questions focused on the four sources of self-efficacy or self-efficacy theory would, in all probability, have yielded more specific data for analysis with directed relevance to each of Bandura's concepts.

Moreover, it is likely that telephone, face-to-face interviews, and or actual program observation during which probing and follow-up questions would have been possible, might have yielded more detailed accounts from all of the participants and deeper interpretations of the meaning they ascribed to their thoughts and experiences. Overall, because of the rich, descriptive comments that were gleaned from the existing data pertaining to the four sources of self-efficacy and the three themes that emerged to support and or inform self-efficacy theory, the researcher conceded that using the existing database of interviews did not weaken the study; but rather, some aspects added to its credibility and dependability.

Qualitative method. It would not have been possible to investigate the nuances and details of the research questions without using a qualitative design. Since there had only been one previous study that probed for the self-efficacy development of women in academic medicine; albeit at a single point in time, and because this study attempted to

understand how and why over time, only a qualitative design could have been satisfactory. In this sense, the qualitative method was a strength for the study. However, as a result of using qualitative methods for managing this study, other researchers using comparable approaches in the same situation but concentrating on different questions might conceivably generate different findings and as a result could reach different conclusions. Although this study could methodologically be duplicated, it might not produce the exact same findings, due to the constructivist type of research and the individual characteristics of the research participants. Participants constructed their own realities and the researcher interpreted these realities through her own lens.

Content analysis. The content analysis research design stated three primary limitations in Chapter 1. The first was content analysis design is limited to recorded information. This limitation was mitigated by the fact that the recorded information used was interview data, it having been established that content analysis was “extremely useful” for interviews. The second limitation was that content analysis is ineffective for causal relationships between variables. As to this limitation, content analysis can be used in the conduct of quantitative as well as qualitative inquiry, the former invoking the use of quantitative language and its numerics. Because this study focused on describing the ELAM experiences shared by the participants, a qualitative approach was used to narrate the meaning ascribed to those experiences. Further, as this was a study that analyzed experiences at two points in time, content analysis facilitated the use of frequencies to focus on categories, themes and subthemes, not the participants (Appendix Q).

The final limitation listed was content analysis design is susceptible to coder bias. This limitation was tempered by the fact that the researcher read and re-read the interview

transcripts numerous times and strictly adhered to the steps provided in Braun and Clarke's (2006) data analysis method. The researcher's analysis was supported by NVivo 10's data analysis software. Support was also provided by a peer debriefer, who was already trained in qualitative analysis and previously worked with dissertation and master's thesis students; thus, eliminating the need for additional training. The extent of support provided by the peer debriefer included consulting with the researcher on the interpretation of data and making inquiries about decisions made for analysis. On occasions when the peer debriefer and the researcher disagreed on interpretation or analysis, discussions were had and the disagreements or concerns were resolved. These measures mitigated this limitation and minimized researcher bias.

Recommendations for Future Research

Qualitative research provides the opportunity to probe for an understanding of the perspectives and meaning that participants attribute to their life experiences (Creswell, 2013). This study examined the self-efficacy and leadership development of a select group of women in academic medicine; however, future research is warranted to better understand this construct and related behaviors and its practice in a male-dominated profession or workplace. In this section, five recommendations for future research are presented.

First, there is a need for future research involving an interview protocol that would investigate the individual self-efficacy sources and their interdependence in the context of different leadership situations and their effect over time. Further, each theme, skill development, decision-making, goal setting, support, networking, mentoring, modeling, feedback, *doing things differently*, *resilience*, and *sponsorship* could be

explored independently or examined wholly in a study that includes all of the themes as this study aimed to do. Further, such an investigation could discover revelations that might explain other ways to deal with the challenges of a male-dominated environment. Moreover, given that this was a first study of this population sample using secondary data, replicating this study, using the sources of self-efficacy and involving the researcher in the overall research process, would eliminate the limitation noted in Chapter 1 regarding the use of secondary data.

Second, the examination of self-efficacy development could be expanded outside of women in academic medicine. Following women in academic medicine, further study could include women in higher education, women in organizations, businesses and corporations, and other specialized fields and professions where high performance is required and the benefits of self-efficacy could be employed. A second tier expansion could also include research on the self-efficacy development of aspiring young women leaders in colleges and universities that might result in baseline data that track their leadership careers. Thus, a discussion with Presidents and Chancellors of community colleges, private universities, and multi-campus college and university systems on policy-making that includes the integration of self-efficacy into the curricula would be needed. The results of this study provide a proposed self-efficacy and leadership development outline that could be further developed for inclusion in the college or university curricula.

This study focused only on examining women in relation to their self-efficacy and leadership development. As there were no previous studies related to self-efficacy and the leadership development of high ranking men professionals and possible gender-related differences, research that expands Bandura's constructs to this population could

begin to impact the stereotypical thinking prevalent in male-dominated environments. Aside from independent studies related to men on this topic, further studies could be conducted that would be gender neutral such that the education received along with the interaction of high status men with high status women might create an understanding of the challenges women face as leaders.

Third, the use of alumnae data through the ELAM database provided an opportunity to explore the perceptions and experiences of an elite group of women. Further studies should be conducted to examine the stratification of possible differences in self-efficacy sources between highly successful and “less successful” ELAM graduates. Studies might include a longitudinal content analysis of all the ELAM Fellows and or a purposeful sampling of women, in particular the 19 women who have ascended to deanships, to delve deeper into their perceptions and experiences related to the convergence of self-efficacy and their leadership development. This probing of the minds of these high ranking women leaders of stature could yield volumes of priceless information that could impact the self-efficacy and leadership development of not just aspiring women leaders in academic medicine, but women leaders globally in every profession. The wisdom and knowledge disbursed from such phenomenal leaders would provide information that could be used to contend with women’s challenges of male dominance in the workplace and facilitate their quest for leadership positions. Overall, various qualitative studies could be used to examine diverse aspects of the ELAM alumnae Fellows, including content analysis studies, case studies, phenomenology studies as well as longitudinal case studies.

Fourth, another approach to self-efficacy and leadership development could involve using a quantitative focus of study which would promote greater generalizability of the findings. Utilizing Bandura's (1997) LSE questionnaire, with emphasis on questions relating to the four sources of self-efficacy, could yield useful findings. A quantitative study would involve specific variables and measures relating to self-efficacy theory. As stated earlier, a study that investigated the total population of ELAM participants, as a unit of analysis, might offer further empirical data about the leadership development of women in academic medicine via self-efficacy development. The conduct of quantitative studies to determine the relationship between concepts and themes would add knowledge and value to the notion of self-efficacy and leadership development over time.

The fifth and final recommendation involves research that would expand the curriculum for leadership development, systematically designing it in a way that would optimize self-efficacy development. The research, using a mixed methods approach that might include a purposeful sample population, would analyze the curriculum for teaching and learning methods that would foster the inclusion of each of the 15 self-efficacy areas.

Overall, there are several areas and topics of interest that could be examined for future study. Through additional empirical research and study, each of these areas would build on the current dissertation and contribute to the theoretical as well as practical literature.

Chapter and Study Summary

In conclusion, the researcher explored the connection between self-efficacy and leadership development among women in academic medicine over a multi-year period

following their participation in a specialized leadership development program. Using a content analysis research design based on a constructivist worldview, the interview transcripts provided valuable information. Self-efficacy themes outlined in Bandura's (1997) self-efficacy conceptual framework were prominent throughout the study. Although each of the participants provided various situations that involved the four sources of self-efficacy, the frequency of references centered on skill development, networking, modeling, mentorship, and support. In an examination over time, it appeared that skill development and mentoring were mentioned most often. Moreover, the study identified three thematic findings that could inform self-efficacy theory. Doing things differently, resilience, and sponsorship were found to be important to the women's success as leaders and to the advancement of their careers.

This study presented new findings that led the researcher to create a conceptual model that synthesizes the shared themes and subthemes that relate to their connection to self-efficacy and the leadership development of women academics in medicine so that they might be of use to other academic institutions or organizations in developing leadership programs. This study also contributed to the literature on women's leadership and provided a foundation for future research on the development of self-efficacy in academic medicine and perhaps other professional areas as well. Although women leaders offer much in the field of academic medicine, scant attention was given to women's self-efficacy and the role it played in their leadership development (McCormick & Martinko, 2004). This study addressed the fact that if women are to increase their leadership contribution in academic medicine, they must demonstrate self-efficacy; that is

to believe in their ability to organize, execute and sustain the skills and behaviors necessary to produce the outcomes they expect.

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APPENDIX A: SUMMARY OF STUDIES RELATED TO SELF-EFFICACY OVER TIME

Authors (Date) & Focus	Research Approach/ Statistical Procedures	Populations/Sample	Key Findings	Strengths/Limitations of the Study
<p>Yeo & Neal (2006)</p> <p>Focus: Developed and tested a theoretical account of the way in which efficacy-performance relations change throughout skill acquisition at different levels of analysis and specificity.</p>	<p>Quantitative: used resource allocation theory to generate predictions regarding dynamic relationships between self-efficacy and task performance from 2 levels of analysis and specificity. Participants were given multiple trials of practice on an air traffic control task. Measures of task specific self-efficacy and performance were taken at repeated intervals. Authors used multi-level analysis to demonstrate differential and dynamic effects.</p>	<p>Undergraduate psychology students ($n = 56$ women; $n = 36$ men; and $n = 1$ unreported gender); mean age was 19.53 years ($SD = 4.31$). Convenience sampling approach</p>	<p>Task specific self-efficacy was negatively associated with task performance at the within-person level; average levels of task specific self-efficacy were positively related to performance at the between-persons level and mediated the effect of general self-efficacy. Self-efficacy effects can change over time but depends on the level of analysis and specificity at which self-efficacy is conceptualized.</p>	<p>Strengths: Research design, statistical findings Limitations: Convenience sampling; sample lacked representativeness; results may not be generalizable beyond laboratory context other than similar information processing requirements.</p>

Summary of Studies Related to Self-Efficacy Over Time (Cont'd.)

Authors (Date) & Focus	Research Approach/ Statistical Procedures	Populations/Sample	Key Findings	Strengths/Limitations of the Study
<p>Vancouver, Thompson, & Williams (2001)</p> <p>Focus: First study: Examined the relationship among self-efficacy, self-reported personal goals, and performance across time, not people. Second study: Replicated findings in first study while demonstrating the positive effects of goal level and, potentially self-efficacy on performance.</p>	<p>Quantitative: Descriptive statistics; used self-efficacy theory to determine whether cross-sectional correlational results were a function of past performance's influence on self-efficacy; used control theory to determine whether self-efficacy could negatively influence subsequent performance.</p>	<p>First study: undergraduate students ($n = 56$). Second study: under- graduate students ($n = 185$); convenience sampling approach.</p>	<p>Self-efficacy positively relates to accepting a difficult goal; positive correlations among performance, self-efficacy, and personal goals in the between-person analysis. Also found negative relationships among performance, self-efficacy, and goals in the within-person analysis.</p>	<p>Strengths: research design; sample size; statistical findings;</p> <p>Limitations: sample lacked distinction in gender representation; results may not be generalizeable; longitudinal design may render more reliable results.</p>
<p>Mitchell, Hopper, Daniels, George-Falvy & James (1994)</p> <p>Focus: Examined</p>	<p>Quantitative: Descriptive statistics; Multicollinearity; Regression Analysis; using a computerized Air Traffic Controller task;</p>	<p>Psychology and business students ($n = 56$ men; and $n = 54$ women); convenience sampling approach</p>	<p>The relationships between self-efficacy, expected score, goals, and performance are complex and change over the skill</p>	<p>Strengths: research design; sample size; statistical findings.</p> <p>Limitations: Self-reports for</p>

Summary of Studies Related to Self-Efficacy Over Time (Cont'd.)

Authors (Date) & Research Focus	Research Approach/ Statistical Procedures	Populations/Sample	Key Findings	Strengths/Limitations of the Study
<p>how self-efficacy perceptions change over time and how those changes are related to task performance.</p> <p>Lee & Klein (2002)</p> <p>Focus: Examined the potential mechanisms through which conscientiousness affects learning and how those processes change over time.</p>	<p>participants engaged in seven trials; self-efficacy and performance expectations were measured before five of the seven trials as well as the factors they believed contributed to self-efficacy judgment.</p> <p>Quantitative: Descriptive statistics; Coefficient Alpha</p>	<p>Undergraduate business students ($n = 74$ males; $n = 60$ females); mean age = 21.3 years. convenience sampling approach</p>	<p>acquisition process; predictive capacity of self-efficacy appeared to change over skill acquisition as well as the manner in which efficacy is estimated.</p> <p>Highly conscientious individuals had higher self-efficacy and self-efficacy had a positive effect on both early and later learning; at the same time, highly conscientious individuals tended to be highly self-deceptive which had a negative effect on early but not later learning; support not found for self-efficacy and self-deception as</p>	<p>estimating self-efficacy; convenience sampling; results may not be generalizable; longitudinal design may render more reliable results.</p> <p>Strengths: Research design; sample size; and findings.</p> <p>Limitations: Use of students in an academic course to test the model; findings may not capture organizational training settings; reliability of learning measures could not be assessed; reliability of self-efficacy measure is unknown.</p>

Summary of Studies Related to Self-Efficacy Over Time (Cont'd.)

Authors (Date) & Focus	Research Approach/ Statistical Procedures	Populations/Sample	Key Findings	Strengths/Limitations of the Study
<p>Vancouver, Thompson, Tischner & Putka (2002)</p> <p>Focus: Two studies presented to examine the negative effect of self-efficacy on performance using an analytic game; Study One - manipulates self-efficacy periodically and tracks the effects over time within an individual. Study Two – examines the mediating mechanism involved in the negative effect to</p>	<p>Quantitative: Descriptive Statistics and Manipulation Checks; Repeated Measures Analysis; Multi-level Analyses</p>	<p>Study One: 87 undergraduate students ($n = 87$); Random sampling approach.</p> <p>Study Two: 104 undergraduate students ($n = 104$).</p>	<p>mediators of the conscientiousness-learning relationship.</p> <p>Study One: Manipulation designed to increase self-efficacy was successful but had no overall relation to performance at the between-person level; at the within-person level, manipulation increased self-efficacy and also decreased performance in the next game; however, manipulation had no lasting adverse effect on performance.</p> <p>Study Two: Confidence, given actual logic errors, was inflated by self-efficacy; self-efficacy had a positive effect</p>	<p>Strengths: Research design; sample size;</p> <p>Limitations: Manipulation could have influenced effect; other explanations possible; results may not be generalizable.</p>

Summary of Studies Related to Self-Efficacy Over Time (Cont'd.)

Authors (Date) & Focus	Research Approach/ Statistical Procedures	Populations/Sample	Key Findings	Strengths/Limitations of the Study
<p>provide additional support for previous study that used control theory.</p> <p>Vancouver & Kendall (2006)</p> <p>Focus: Examined the effect of self-efficacy on motivation and performance within individuals enrolled in an instructional program (i.e. college course).</p>	<p>Quantitative: Descriptive Statistics; Repeated Measures approach</p>	<p>Undergraduate students over two quarters ($n = 31$ students in winter term; $n = 32$ students in spring term); ($n = 50$ women; $n=13$ men); mean age was 21 years; 78% were psychology majors.</p>	<p>on confidence.</p> <p>Positive relationship between self-efficacy and performance at the between-persons level; self-efficacy negatively related to planned and reported study time, as well as performance.</p>	<p>Strengths: Research design: sample size</p> <p>Limitations: Results may not be generalizable to other training contexts and setting; relied on natural variation within individuals over time to assess effects rather than direct manipulation to assure variance.</p>

**APPENDIX B: HEDWIG VAN AMERINGEN EXECUTIVE LEADERSHIP IN
ACADEMIC MEDICINE (ELAM) PROGRAM FOR WOMEN INTERVIEW
PROTOCOL FOR FELLOWS IN YEAR AFTER COMPLETION OF
FELLOWSHIP**

Participation is voluntary. The interview will be tape-recorded. At the beginning of the interview, please introduce yourself to the tape-recorder, then state your permission for your responses to be used for ELAM research on leadership development of women academics in medicine, and that you give permission for the conversation to be tape-recorded.

Overall Impact

- How do you define leadership and how do you measure yourself against that definition?
- In general, has ELAM been beneficial for you? How?

The Program Itself

- How has ELAM fostered useful relationships? How have these relationships benefited you?
- In retrospect, what has been the learning highlight of ELAM? Low point?
- Any missing content?
- What follow-up would you like? From whom?

Back on the Job

- Describe some specific management/leadership skills you developed as a result of ELAM.

- Were there major concepts that you were exposed to that you now try to apply at work?
- Do you view your job differently as a result of any learning experience at ELAM?
- What support, advice are you getting from your Dean about your career, job?

You and Your Career

- What did you learn from ELAM about strategizing, developing your career?
- Have you changed your strategizing about your career? If so, how?
- Have any opportunities come to you as a result of ELAM? Describe.
- Do you have mentors/advisors/role models? Who are these people? How are they helpful?

You as a Leader

- What has this program taught you about your own development as a leader?
- Relate a story about a leadership incident that has happened since ELAM. What was different about how you handled this situation than if this incident had happened before your participation in ELAM?

When the Rubber Hits the Road...

Using a scale of 1-10, with 10 being best...

- What was the value of ELAM for you personally?
- What was the value of ELAM for you on your job?
- What as the value of ELAM for your institution?
- What was the value of ELAM given the opportunity cost (time away from job and family; work not done; mail piled up, etc.)?

We've come to the end of my question list. However, as you were anticipating our conversation, was there any other issue related to ELAM and your leadership development that came to your mind that my questions have not yet drawn out of you?

**APPENDIX C: HEDWIG VAN AMERINGEN EXECUTIVE LEADERSHIP IN
ACADEMIC MEDICINE (ELAM) PROGRAM FOR WOMEN INTERVIEW
PROTOCOL FOR FELLOWS FIVE YEARS AFTER COMPLETION OF
FELLOWSHIP**

Participation is voluntary. The interview will be tape-recorded. At the beginning of the interview, please introduce yourself to the tape-recorder, then state your permission for your responses to be used for ELAM research on leadership development of women academics in medicine, and that you give permission for the conversation to be tape-recorded.

ELAM Impact

- How do you define leadership and how do you measure yourself against that definition?
- In retrospect, was ELAM beneficial for you? How?
- To what extent have you maintained ELAM relationships? Have these relationships benefited you? How?
- What lessons have you carried with you from ELAM?
- What follow-up did you pursue after ELAM? Why did you seek this follow up? What benefits did you derive from it?

Your Jobs and Your Career

- What jobs have you had since ELAM?
- Did obtaining and fulfilling these jobs benefit from lessons learned at ELAM? How?
- How has the career introspection triggered by ELAM manifested itself in your jobs and career over the past five years?

- What ELAM lessons have you continued to apply to strategize and develop your career?
- Have opportunities come to you as a result of your ELAM connection? Describe.
- What support, advice have you obtained from Deans and other senior colleagues about your leadership and administrative career since your ELAM participation? Was this advice in sync with the career goals that you set for yourself as a result of your ELAM career introspection?
- How have you applied your ELAM knowledge to mentor other women?

You as a Leader

- What lessons about management and leadership learned at ELAM have you continued to employ?
- What new lessons have you learned about leadership since ELAM?
- Relate stories about leadership incidents that have happened recently. What was different about how you handled these situations because of your ELAM participation?

When the Rubber Hits the Road...

In retrospect, in comparison with other career, job and leadership development programs you may have participated in since ELAM, and using a scale of 1-10, with ten being best...

- What was the value of ELAM for you personally?
- What was the value of ELAM for you on your job?

APPENDIX D: RELATED THEORIES OF MOTIVATION

Construct	Theorist(s)	Basic Assumptions
Expectancy-Value Theory	<p>Martin Fishbein (Founder); 1970s</p> <p>More recent formulations: Eccles, 1983; Wigfield, 1994; Wigfield & Tonks, 2002</p>	<p>Expectancy-value theory represents three basic components. First, individuals respond to novel information about an item or action by developing a belief about the item or action. If a belief already exists, it can and most likely will be modified by new information. Second, individuals assign a value to each attribute that a belief is based on. Third, an expectation is created or modified based on the result of a calculation based on beliefs and values.</p>
Attribution Theory	<p>F. Heider (1958) was the first to propose a psychological theory of attribution;</p> <p>Weiner and colleagues (e.g., Jones et al., 1972; Weiner, 1974, 1986) developed a theoretical framework that has become a major research paradigm of social psychology.</p>	<p>Attribution theory is concerned with how individuals interpret events and how this relates to their thinking and behavior. The theory assumes that people try to determine why people do what they do. According to Heider, a person can make two attributions: (1) internal attribution, the inference that a person is behaving in a certain way because of something about the person, such as attitude, character or personality; and (2) external attribution, the inference that a person is behaving a certain way because of something about the situation he or she is in.</p>

Related Theories of Motivation (cont'd.)

Construct	Theorist(s)	Basic Assumptions
Goal Theory	Edwin Locke and Gary Latham (proposers)	Goal theory is based on the premise that people use goals to satisfy their needs and desires. A person's effort will be influenced by how difficult it is to achieve the goals and how committed they are to meeting the emotional need or desire. People perform better if they have quantified goals, deadlines, challenging goals and measurable targets.
Self-worth Theory	Martin Covington (pioneer), 1984; 1992 Other Developers: R. G. Berry, A. Bandura	Self-worth theory asserts that a person's ability to achieve is directly linked to their perceptions of themselves. According to Martin Covington, the pioneer in the psychology field of self-worth and self-efficacy, most people will go to extraordinary lengths to "protect their sense of worth or self-value," even if it infringes upon the ultimate outcome of their achievement (Covington, 1984, p. 4). Ultimately, this theory means that it can be difficult to predict whether someone will choose to learn/complete a challenging task or find a reason to fail that protects their self-image.
Self-Determination Theory	Edward L. Deci and Richard M. Ryan (developers)	Self-determination theory (SDT) is an empirically based theory of human motivation, development, and wellness. The theory focuses on types, rather than just amount, of motivation, paying particular attention to autonomous motivation, controlled motivation, and amotivation as predictors of performance, relational, and well-being outcomes.

APPENDIX E: ELAM PERMISSION LETTER



DREXEL UNIVERSITY

Executive Leadership in Academic Medicine

College of Medicine

Date: 9 November 2012

To: Ms. Patricia Gibbs
George Washington University

From: Page Morahan, Ph.D.
Director of Research, International Center for Executive Leadership in Academics (ICELA)
Founding Director, Executive Leadership in Academic Medicine® (ELAM) program
Professor, Microbiology and Immunology

Re: Permission to use data from ELAM program

I am pleased to allow you access to deidentified data, with no links provided to the source subjects, from the open GWU study #GWUU050212ER the now closed GWU study #GWUU050215ER that were collected as part of Drexel Projects #316 and # 1111000430 both titled *Evaluation of Effectiveness and Long-term Impact of Hedwig van Ameringen Executive Leadership in Academic Medicine (ELAM) Program for Women and Implications for Theory-Building about the Leadership Development of Women.*

ELAM Program • Drexel University College of Medicine • 2900 West Queen Lane, Philadelphia, PA 19129

Main: 215-991-8240 • Fax: 215-991-8171 • Email: elam@drexelmed.edu • Website: www.drexelmed.edu/elam

ELAM® is a core program of the Institute for Women's Health and Leadership®, Drexel University College of Medicine

APPENDIX F: LISTING OF PARTICIPANTS INTERVIEWS AND TOUCH POINTS

Reference to Self-Efficacy (SE)

High or Medium

Below is an illustration of how the listing of participants was noted in reference to self-efficacy.

The codes were rated as high or medium. After analyzing each interview transcript, this form was used to record their ranking by circling high or medium. Low rankings were excluded.

Interview Code	Time 1 (0-13 months)	Time 2 (5.5 years)
96-1	High Medium	High Medium
96-2	High Medium	High Medium
96-3	High Medium	High Medium
96-4	High Medium	High Medium
96-5	High Medium	High Medium

High – Participants’ comments were rich and descriptive with substantial statements that were reflective of the four sources of self-efficacy (i.e. performance success, achievements, skill development, goal setting, persistence, motivation, leadership examples, etc.); ability to easily discern self-efficacy constructs.

Medium – Participants’ comments were sufficiently descriptive with statements that were reflective of the four sources of self-efficacy but were not as thick in terms of the density of words; ability to identify self-efficacy constructs with some inference.

Low – Participants’ comments were insufficient to yield enough descriptive information related to the four sources of self-efficacy for analysis.

APPENDIX G: E-MAIL REQUEST FOR TRANSCRIPTS

Subject: Request for Transcripts

Dear Dr. Sharon McDade:

Thank you for agreeing to assist me during my dissertation research project. To that end, this e-mail is to request 31 de-identified interviews from the ELAM interview database. I understand that the interviews will be sent through a password-encrypted, secure file transfer protocol over the Internet. Multiple interviews were conducted over time in three classes (1996, 1997, and 1999) at discrete time intervals (also referred to as touch points or tiers). Together, a total of 31 women fell in this category. Please send interviews specifically from the following classes: 1996 (n=9), 1997 (n=7), and 1999 (n=15).

Thank you.

Sincerely,

Patricia J. Gibbs

APPENDIX H: MESSAGE DEMONSTRATING RECEIPT OF TRANSCRIPTS

Subject: Receipt of Transcripts

Dear Dr. Sharon McDade:

Thank you for providing the 31 de-identified interviews from The ELAM interview database.

Sincerely,

Patricia J. Gibbs

APPENDIX I: DEFINITIONS RELATED TO QUALITATIVE CONTENT ANALYSIS

Units of coding - Units of coding are those parts of the units of analysis (interview transcripts) that the researcher can interpret in a meaningful way relative to the categories and that fit into only one subcategory of the coding frame (Schreier, 2012). In other words, they are the units that are assigned to a category or subcategory in the coding frame (Boyatzis, 1998; Krippendorff, 2004). Units of coding can be as large as an article, a book, one paragraph or several paragraphs, a phrase, or a few words, depending upon the categories and subcategories (Boyatzis, 1998; Krippendorff, 2013; Schreier, 2012).

Coding - Coding refers to identifying “the most basic segment, or element of the raw data or information that can be assessed in a meaningful way regarding the phenomenon” (Boyatzis, 1998, p. 63). Carpenter & Sutton (2008) describe a code as a label, usually a word or short phrase derived from participants’ accounts, which is assigned to data fragments defined as having some common meaning or relationship.

Context units - The context unit is that portion of the surrounding text that the researcher needs in order to understand the meaning of a given unit of coding (Schreier, 2012). For instance, in this study, the researcher referred to the interview, the preceding interview question, the full answer of the interviewee, and when needed, some earlier portions of the interview to gain an understanding of the context of the extracted units of coding.

Data corpus – All data collected for a particular research project (Braun & Clarke, 1996, p. 79); e.g. complete interviews from ELAM alumnae across time (1996, 1997, and 1999).

Data set – refers to all the data from the corpus that is being used for a particular analysis (Braun & Clarke, 1996); e.g. all ELAM alumnae interviews that have some relevance to self-efficacy.

Data item – refers to each individual piece of data collected, which together, make up the data set or corpus (Braun & Clarke, 2006); e.g. a complete individual interview.

Data extract – Refers to an individually coded chunk of data, which has been identified within, and extracted, a data item (Braun & Clarke, 2006).

Latent content - content that is less standardized, indirectly expressed, and conveys more than one meaning at a time; meaning is not immediately obvious, and different persons may disagree on the exact meaning (Berelson, 1952; Bernard & Ryan, 2010; Braun & Clark, 2006; Schreier, 2012).

Manifest content - Also referred to as semantic content, is standardized, simple, clear, and direct; conveys only one meaning at a time; elicits the kind of meaning on which different persons are likely to agree; and its meaning is usually obvious (Berelson, 1952; Braun & Clark, 2006; Schreier, 2012).

Open coding - a data-driven strategy used to discover concepts in data (Schreier, 2012).

Theme – something important about the data in relation to the research question; and represents some level of patterned response or meaning within the data set.

Thematic map – an overall conceptualization of the data patterns, and relationships between them.

APPENDIX J: CROSS WALK OF RESEARCH QUESTIONS AND CODING AND THEMATIC PROCESS FOR EACH DATA ITEM PER DATA POINT

Research Questions		Six Phases of Coding and Identifying Themes				
	Familiarization with the Data	Generating Codes (inductive and a priori)	Categorizing for Code Associations	Searching and Reviewing Themes	Defining and Naming Themes	Producing the Report
1. Using the constructs of Bandura's (1986, 1991, 1997) self-efficacy frame as an examining lens, how do alumnae of the ELAM program describe the development of their self-efficacy behaviors over time?	Immerse into the data Separate relevant from irrelevant data	Initial coding (data- and theory-driven)	Develop categories and coding scheme via data reduction and documenting where and how themes	Coding scheme via data reduction documenting how themes emerge; Review broader levels	Name emerging themes	Have completed themes and data analysis
2. What self-efficacy behaviors seem most amenable to improvement in the leadership development journey of the ELAM alumnae?	Immerse into the data Separate relevant from irrelevant data	Comparison to Bandura's self-efficacy frame (theory-driven)	Develop categories	Identify themes and trends; Review themes for relevance to self-efficacy	Name emerging themes	Have completed themes and data analysis
3. How can self-efficacy theory provide a deeper understanding of the development of self-efficacy behaviors for these women in academic medicine?	Immerse into the data; Separate relevant from irrelevant data	Compare to self-efficacy sources	Develop Categories	Develop themes; Review but also tailor to review for self-efficacy	Name emerging themes	Have completed themes and data analysis

APPENDIX K: EXAMPLE OF CODED DATA FROM INTERVIEW

TRANSCRIPT

Raw Interview Data	Codes
<p>“Again, I had already been making some of the changes, but a recognition of the whole process of explicitly setting up to work and play well with others as opposed to just being cooperative and doing my job, to try to synergize better with peers. Even if you didn’t have a positive attitude, you should at least fake one because if you have negative attitude you are going to get skewered.”</p>	<ul style="list-style-type: none"> • Making changes • Goal Setting • Understanding meaning of good collaboration • Recognizing importance of teamwork • Attitude adjustment
<p>“One of the things that we had to do at ELAM is to have semi-structured interviews with people that perform various roles...”</p>	<ul style="list-style-type: none"> • Execution of task strategies
<p>“Right, and again, not quite as structured as before, but even if just talking with them before meetings, I knew some of the relevant questions to ask to get a flavor of the institution.”</p>	<ul style="list-style-type: none"> • Networking • Developing relationships
<p>“But when I was interacting I made it a point when they were, when I was at meetings they were at, to at least hello and make sure that I asked them some questions to figure out what was going on and what some of the various processes were.”</p>	<ul style="list-style-type: none"> • Networking • Opportunities to get acquainted • Eliciting support • Gaining knowledge
<p>“And one of the things, it has been shocking to me in my role as student, then doctor, then faculty member, is how as peers move through the pipeline not everybody remains connected with where they have been and even fewer people, even think they have a sense of curiosity as to what the world looks like to their supervisor.”</p>	<ul style="list-style-type: none"> • Shock • Anxiety about lack of peer support • Peers moving through pipeline • Feeling disconnected from peers
<p>“It helped me in the context that certain things would not be so intimidating.”</p>	<ul style="list-style-type: none"> • Coping Skills • Not feeling intimidated

**APPENDIX L: EXAMPLE OF THE CODES CATEGORIZED BY SOURCES OF
SELF-EFFICACY**

Performance Attainment	Vicarious Experience	Verbal Persuasion	Physiological or Affective States
Goal Setting	Observing	Eliciting support	Shock
Making Changes	Mentoring	Gaining knowledge	Anxiety about lack of peer support
Understanding meaning of good collaboration	Support Networking	Being validated Good feedback	Feeling disconnected from peers
Recognizing importance of teamwork	Developing Relationships People I can call on	Peer mentoring	Not feeling intimidated
Attitude adjustment	Making an effort		Past feelings of injustice
Execution of task strategies	Insight		Feel more comfortable
Identifying sources	Political awareness		Cranky
Leadership			Belief
Skill development			
Peer advocacy			
Initiating women's group			
Helping others achieve			

APPENDIX M: QUALIFICATIONS OF DEBRIEFER

KULWINDER PAL KAUR-WALKER

EDUCATION

Doctor of Philosophy (Ph. D.) in Psychology

Delhi University, Delhi, India.

Thesis: “Age Differences in Episodic Memory.”

Date of Graduation: April 1996.

Master of Philosophy (M. Phil.) in Psychology

Guru Nanak Dev University, Amritsar, Punjab, India.

Thesis: “A Factor Analytic Study of Child Rearing Practices”.

Graduated with First Division with courses on Research Methodology and Social Psychology; Date of

Graduation: June 1988

Post Graduate Diploma in Educational & Vocational Guidance.

National Council of Educational Research & Training, New Delhi, India.

Graduated with First Division with Distinction in Viva Voce (Oral) Examination.

Date of Graduation: May 1986.

Master of Arts (M.A.) in Psychology

Guru Nanak Dev University, Amritsar, Punjab, India.

Graduated with First Division and Outstanding Grade in Personnel Selection and Training.

Date of Graduation: May 1985.

Diploma in Statistics

Punjab University, Chandigarh, India.

Graduated with First Division.

Date of Graduation: March 1995

Bachelor of Education (B. Ed.)

Maharishi Dayanand University, Rohtak, Haryana, India.

Date of Graduation: March 1996.

Bachelor of Science (B. Sc.)

S. R. Government College for Women, Amritsar, Punjab, India.

Date of Graduation: July 1983.

Pre-Medical

Khalsa College, Amritsar, Punjab, India.

Date of Graduation: July 1981.

Continuing Education

The Interdisciplinary Certificate in Health Disparities

University of North Carolina – Chapel Hill, Chapel Hill, NC

Date of Graduation: April 4, 2013

PROFESSIONAL EXPERIENCE

Professor (Psychology)

School of Education and Psychology

Elizabeth City State University (ECSU), Elizabeth City, NC

Taught Learning and Cognition, Experimental Psychology, Psychology Senior Seminar, July 2010 – Present

Associate Professor (Psychology)

School of Education and Psychology

Elizabeth City State University (ECSU), Elizabeth City, NC

Taught Learning and Cognition, Experimental Psychology, Statistics & Research Designs, Developmental Psychology, General Psychology, Sensation and Perception, Physiological Psychology, Psychology Senior Seminar.
August 2000 – July 2010

RESEARCH PUBLICATIONS/PRESENTATIONS

- Anderson, A., Jackson, L., **Kaur-Walker, K.**, & Pham, Q. (2012). Carolina Cancer Network: Commitment to Reduce Breast, Prostate and Colorectal Cancer Disparities. Presented at Seminar on Understanding and Addressing Health Inequities in US, Chapel Hill, NC, April 12, 2012.
- Buescher, B., Harker, L., **Kaur-Walker, K.**, & Mote, K. (2011). Health Impact Assessment: Aberdeen Pedestrian Transportation Plan. Presented at Seminar on Health Services for Unserved Populations: Pre and Post-Health Reforms, Chapel Hill, NC, December 8, 2011.
- Johnson, C., **Kaur-Walker, K.**, Luong, M., & Miller, A. (2011). Heart Healthy Lenoir: A Qualitative Study to Explore the Healthy Life Style Options using Photovoice Technique. Presented at Seminar on CBPR Approaches in Health Disparities Research, Chapel Hill, NC, April 30, 2011.
- Dixon, J. A., **Kaur-Walker, K.**, Lawrence, E., & Traore, K. (2010). Shared Governance at a Small Rural University. Presented at AAUP Annual Conference, Washington, DC, November 12, 2010.
- Dixon, J. A., **Kaur-Walker, K.**, & Reese, N. (2005). North Carolina's Response to Teacher Shortages in Special Education. Presented at Association of Teacher Education Annual Conference, Chicago, IL, February 14, 2005.
- Kaur, K.**, & G. Gregory. (2001). A Diversity of Religious and Spiritual Perspectives: Impact and Influences on Personhood. Learning Institute presented at ACA Annual Conference, San Antonio, TX, March 15, 2001.
- Kaur, K.**, Sandhu, D. S., & Pant, D. (1999). Acculturative Experiences of Asian and Pacific Islander Americans: Considerations for Counseling and Psychotherapy in D. S. Sandhu (Ed.) *Asian and Pacific Islander Americans: Issues and Concerns for Counseling and Psychotherapy (Ed)*, 1999, NY: Nova Science Publishers.
- Kaur, K.**, & Gupta, A. (1996). Episodic Memory among the Aged. *Journal of the Indian Academy of Applied Psychology*, Vol. 22, 107-113.

Kaur, K. (1995). Immediate Memory Span. Presented at a seminar on Experimentation in Psychology at Punjabi University, Patiala, Punjab, India, February 4, 1995.

Singh, S., & **Kaur, K.** (1988). An Item Factor Analysis of Parental Reports of Child Rearing Practices. *Personality Study and Group Behavior*, Vol. 8, 15-19.

OTHER SCHOLARLY ACTIVITIES

Kaur-Walker, K. (2009). Examination of the Effects of Colorectal Cancer Risk Factor Awareness Training on Changing Colorectal Behavior & Attitude among African Americans through Church-Based Intervention. A grant (Number: 10KR10809) funded by NC TraCS Institute, February 5, 2009.

Kaur-Walker, K. (2007). The effect of College Student Interaction with families on Colorectal Cancer Awareness and Prevention Behavior of African Americans. A Pilot grant proposal submitted to UNC Program on Ethnicity, Culture and Health Outcomes, February 2007.

Kaur-Walker, K. (2005). Fighting Health Disparities in Minorities – Breast Cancer Awareness and Prevention. An ECHO pilot grant on Minority Health Disparities, UNC Chapel Hill, 2004-2005.

Served as an external evaluator and collaborator on Norfolk State University grant titled “**Promoting Health and Wellness through online information**”. Project finished in Fall 2003.

Age Differences in Episodic Memory. Unpublished PhD Thesis, University of Delhi, May 1993.

A Factor Analytical Study of Child Rearing Practices. Unpublished Master of Philosophy Thesis, Guru Nanak Dev University, March 1988.

MEMBERSHIPS

- Member of American Counseling Association (ACA) and Association of Multicultural Counseling and Development (AMCD), a division of ACA (2001)
- Psychology, a division of APA (1998 - Present)
- Life Member of Psi Chi, a National Honor Society in Psychology
- Member of Indian Psychological Association

STUDENT RELATED ACTIVITIES

- Preparing students for presentations (Posters/Psychology Jeopardizes) at regional Psychology conferences.
- Coordinating Statistics/Research Methods mentoring Senior Psychology Students

- Member, Animal Subjects Committee member, 2003-04
- Member, ECSU Institutional Review Board since 2004
- Chair, Elizabeth City State University Institutional Review Board (Since 2007)
- Reviewing books on JAINISM for the Science of the Soul Study Center library
- Reviewed a text book 'Learning and Memory' authored by Terry for Allyn and Bacon, January 2004
- Reviewer for Cognition textbooks for Cengage Learning

PROJECTS IN PROCESS

- Grant project - Community Outreach to provide Colorectal Cancer Prevention and Screening Education to Minority (specifically African American population) in Pasquotank County (Elizabeth City)
- Grant proposal on health disparities for NIH submission

APPENDIX N: DREXEL IRB DOCUMENT

MCP Hahnemann University

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Office of Research and Graduate Studies

Mail Stop 444 • 245 N. 15th Street • Philadelphia, PA 19102-1192

TEL 215.762.3453 • FAX 215.762.3722

www.mcphu.edu



APPROVAL NOTICE

TO: Page S. Morahan, Ph.D. Mailstop: MCP
Faculty/Affairs

FROM: Victor Lidz
Victor Lidz, Ph.D., Chair
Institutional Review Board (IRB #1) H1

SUBJECT: PROTOCOL: Evaluation of Effectiveness and Long-term Impact of the Hedwig van Ameringen Executive Leadership in Academic Medicine (ELAM) Program for Women and Implications for Theory-Building about the Leadership Development of Women

Note: 04/16/02 Approved - Conditions Met (ELAM Program Alumnae)

SPONSOR: Robert Wood Johnson Foundation

UNIV. PROJECT #: 3380

UNIV. PROTOCOL #: 01066 -01

CURRENT APPROVAL PERIOD: 04/16/02

EXPIRES: 04/02/03

USE CONSENT FORM DATED: 04/16/02

DATE: April 19, 2002

On behalf of the Institutional Review Board (IRB), I am pleased to inform you that the subject protocol has been reviewed and APPROVED AS SUBMITTED for the period indicated above. We operate under many Government requirements. As a result, this approval is granted with the following understandings:

1. The attached consent form indicated above must be used unless a subsequent notification is approved in writing by the IRB. Remember that each subject enrolled in the study (and/or their guardian) must sign this consent form; preferably, the signatures are witnessed or acknowledged. You must give each subject a copy of the consent form and you must retain all signed consent forms for three years after project termination. Please keep these forms readily available (NOT in patients' charts).
 2. If this is a sponsored project, then the study may not be activated until the Research Office has received BOTH a fully executed sponsored agreement AND appropriate letter(s) of indemnification by the sponsor. If this is not a sponsored study (designated "internal"), the costs of the project must be identified and a cost center designated. Please call 215-762-3453 if you have any questions regarding these procedures.
 3. You must advise the IRB of the activation date. Use the attached form for this purpose.
 4. Any change in the procedures done to the subjects must be submitted in writing in advance.
 5. Any adverse reaction must be reported to the IRB in a timely fashion.
 6. Should the IRB decide to monitor your project directly, please cooperate fully. Failure to do so may result in withdrawal of this approval and notification of the sponsor and/or Federal agencies. Specific information regarding monitoring appears in: GUIDELINES - BIOMEDICAL RESEARCH INVOLVING HUMAN SUBJECTS obtainable through this office.
 7. Whether or not this protocol is activated, the IRB will review its progress on or about the above Expiration Date. Should you fail to respond to this Federally-required progress report, the project may become ineligible for re-approval and the IRB may choose not to consider other projects for approval.
 8. A final progress report must be submitted to the IRB in format similar to that of a periodic report.
- The IRB welcomes your research project into the list of approved protocols. Your compliance with the above conditions will help to protect the continuation of all research activity at the University. With your project and others like it, we look forward to additions to knowledge of human health and benefits to science, our patients and society.

cc: Dept Chair, Tenet and Drexel

humadcn

APPENDIX O: IRB APPROVAL DOCUMENT

CERTIFICATION OF RESEARCH EXCLUSION
FOR PRINCIPAL INVESTIGATORS
Graduate School of Education and Human Development

Name of Principal Investigator: Dr. Rick C. Jakeman

Name of Student (if applicable): Patricia J. Gibbs

Title of Study: Self-Efficacy and the Leadership Development of Women in Academic Medicine:
A Study of Women Alumnae of the Hedwig van Ameringen Executive Leadership in Academic
Medicine® (ELAM) Program

Type of Study:

- Dissertation
 Sponsored
 Other (please describe) _____

After reviewing the following *Excluded Research Checklist for GSEHD*, it was determined that the proposed research is excluded because of the reason(s) checked below:

- 1. Is the activity a systematic investigation designed to develop or contribute to generalizable knowledge?**
 No Yes
*If YES, continue to question #2.
If NO, this research is excluded, do not submit to the IRB for review.*
- 2. Does the research involve obtaining information about living individuals?**
 No Yes
*If YES, continue to question #3.
If NO, this research is excluded, do not submit to the IRB for review.*
- 3. Does the research involve intervention or interaction with the individuals?**
 No Yes
*If YES, continue to question #5.
If NO, proceed to question #4.*
- 4. Is the information individually identifiable?** (i.e., the identity of the subject is or may be readily ascertained by the investigator or associated with the information)
 No Yes
*If YES, continue to question #5.
If NO, this research is excluded, do not submit to the IRB for review.*

5. The research is collecting information about those individuals?

 No Yes

If YES, send an application to the GWU Office of Human Research for IRB Review. Forms are available on the OHR website: <http://www.gwumc.edu/research/human/index.html>

If NO, this research is excluded, do not submit to the IRB for review.

*** If after following this checklist you still have questions, consult with the IRB Office.***

Marion Anderson Daniels

Signature of Department Chair

Signature of Principal Investigator

4/14/2014

Date

Date

Patricia J. Gibbs
Signature of Student (if applicable)

4/14/2014

Date

Important Information About Dissertations

- As a reminder, if your research is excluded you must still submit one hard copy of this form, your dissertation proposal, and the proposal approval form to Gianna Miller (docgsehd@gwu.edu) in the Office of Student Services. Your dissertation is not officially approved and you may not begin data collection until you receive a letter from the Senior Associate Dean.
- If your research requires review by the IRB you should submit two hard copies of your IRB paperwork (with necessary signatures including the department chair), your dissertation proposal, and your proposal approval form to Gianna Miller (docgsehd@gwu.edu) in the Office of Student Services. She will submit them to the IRB office on your behalf. Once you receive final approval from the IRB office, forward her a copy of the approval email. She must have this in hand before the Office of the Associate Dean will approve your dissertation research.

5. The research is collecting information about those individuals?

No Yes

If YES, send an application to the GWU Office of Human Research for IRB Review. Forms are available on the OHR website: <http://www.gwu.edu/research/human/index.html>

If NO, this research is excluded, do not submit to the IRB for review.

*** If after following this checklist you still have questions, consult with the IRB Office. ***

Signature of Department Chair

Rick Korman

Signature of Principal Investigator

Date

4/15/2014

Date

Patricia J. Gibbs

Signature of Student (if applicable)

4/14/2014

Date

Important Information About Dissertations

- As a reminder, if your research is excluded you must still submit one hard copy of this form, your dissertation proposal, and the proposal approval form to Gianna Miller (docgschd@gwu.edu) in the Office of Student Services. Your dissertation is not officially approved and you may not begin data collection until you receive a letter from the Senior Associate Dean.
- If your research requires review by the IRB you should submit two hard copies of your IRB paperwork (with necessary signatures including the department chair), your dissertation proposal, and your proposal approval form to Gianna Miller (docgschd@gwu.edu) in the Office of Student Services. She will submit them to the IRB office on your behalf. Once you receive final approval from the IRB office, forward her a copy of the approval email. She must have this in hand before the Office of the Associate Dean will approve your dissertation research.

APPENDIX P: SELF-PERCEPTIONS OF PARTICIPANTS AS LEADERS OVER TIME

Participants (1996, 1997 & 1999)	Self-Perceptions of Leadership Time 1	Self-Perceptions of Leadership Time 2
Dr. Mary 96	<p>I've made a lot of positive changes in regards to style and so forth. I guess in terms of any changes a focus on leadership ... I'm a very nerdy data-based individual ... I tended to focus in terms of the leader is the one who at least has access to the answers or how to get the answers. So I have come to see the role of leader more in the context of stimulator and teacher as well as having...you know, knowing where to go...A willingness to seize control of a committee meeting that's going nowhere when I'm not the leader, and basically try to put the point into focus and draw them in a direction that I thought was feasible. I felt a lot more comfortable doing that...</p>	<p>I was way, way, way less controlling than I would have been...Right, and again more patient.</p>
Dr. Ellen 96	<p>I think that's pretty much what I practice, recognizing that there are times when one has to make decisions that are quick and snap and occasionally don't fit that model...I am the person who you meet and you talk to and you follow...I'm very organized and I'm very goal directed and I could bring people together, organize them and we would not disband until we knew who was going to do what...I just basically believe everybody has something to offer...that's a basic philosophical thing that's part of me that I think allows me to accomplish some of the things I do.</p>	<p>The ability to push...The ability to have people think about what they are doing and to create their own vision and the ability to mentor them and push them along that road...Having a way of...framing it in things that would matter to them is more effective than just saying you do a terrible job, you don't ever see patients, you don't do this, you don't do that, that kind of experience in framing so that the outcome is the outcome you want...I am better at dealing with conflict... I have reframed it for myself over the years to an opportunity continuously, an opportunity to look at behaviors that are successful and not successful and behaviors that are expected and behaviors that are observed</p>

		and mechanisms and language that allows me to speak to problems and to deal with them.
Dr. Earlene 96	<p>I consider myself a manager who's a little bit hands off, I'm not so controlling I have to be in charge of everything, and I give positive feedback. I try to do it by positives instead of by negatives, and you know, that's not easy for me to do. It's not inherent to keep telling people how good they are at something when you really want them to correct something else. And I think ELAM has shown me that first of all, that is a good way to manage, okay, which is helpful to me. But secondly, that I can do it with more force in the sense of saying 'This is really positive, but this is the section we really need to work on' and be a little more up front about what the negatives are and how to structure things. So that's been positive for me, in other words, I'm not so afraid to tell somebody when something needs correction and to take the consequences when they're not happy with that. That's part of managing well I think, it's very hard for me to do... before I came to ELAM I would look at somebody who was designated as a leader and say you know, I can't be like that,...and I think ELAM taught me I don't have to be like that. I can be like me... take the skills that I have and develop them and grow with them and work on the strengths that I have...</p>	<p>I really like not really having a boss... I'm able to hear two people in a conversation, or be in a three-way or a group conversation and pick the consensus out of it and... I didn't know that I could do that,... I don't know what that is, but I think my tolerance for ambiguity is huge compared to what it used to be and I struggled to be patient with other people's intolerance for ambiguity.</p>

Dr. Harriet 96	ELAM helped me focus I think on the specific traits and skills that a leader needs to have, and I think a certain amount of leadership characteristics are intuitive,...I need to be willing to think very broadly and take more risks. I think I always was kind of a risk taker, but I heard a lot of messages about taking even more risks than I would have chosen for myself.	I've been effective... I think our institution is clearly going in a different place in terms of its clinical practice and its relationship with our partnering institutions, which are sort of the things under my watch, and I don't think that would be entirely the case if I wasn't in this position...I think I have good instincts about the abstract view of institutions and strategy but I think a lot of the organizational management elements of email, ELAM sort of confirmed the value of trusting my instincts.
Dr. Donna 96	I'm trying hard but...I need to let go of some of my work, delegate more. And it reaffirmed that my method of trying to guide and encourage staff rather than make staff independent judgements in a more autocratic fashion, I think it's right...I need to work more collaboratively and by consensus...that is the right way to do it and I just have to persevere...I just think that over the long term that I have the broader picture of some of the issues of strategic planning, personnel management...that will help me approach things in a calmer way... I'm doing a reasonable job, so I can just build on that. So I think it is beneficial, it gives me a broader perspective and I don't think as emotionally...quite as emotionally as I did before.	I'm less of a visionary and more of a practical realist ...I'm a pretty good pragmatist...I totally fit my profile, which is I'm a leader by personal engagement...I think that's the biggest change that I've had, perhaps a more open approach to considering other people's venues...I still think I'm pretty instinctual. I have more filters, ...of listening to an array of opinions and things like that, that has been overlaid on my instinctual impulses... if anything has changed I am probably more capable of being less reactionary ... Usually I'm very problem oriented. Something comes up I'll address it right away, and at times that is not the right thing to do, and that's been something that I had to intellectually apply the breaks to give distance and reflection to make sure that what I am doing instinctually is correct.
Dr. Maggie 96	I think I got a bigger or stronger appreciation for how important it really is to serve as a repository and as a catalyst, both functions, for getting people who are on the team to maximize their potential ... if that makes any	ELAM for me was ... a real turning point in helping me to put my leadership potential in perspective...I have probably two barometers that are important to me in my measurement.

	<p>sense...just a better sense of how important that team building function is as opposed to the leader being the idea provider, the one with the very best vision perhaps...I think my ability to be a leader and to see myself in leadership positions was very much enhanced as a result of ELAM... You have to have the courage to stand up for what you believe in too,...you know,...you can't be passive...I think I do have an ability to give people bad information in a pretty supportive way and look at problems real directly and practically but without stepping on a whole lot of toes and telling people how we need to look at things. So I think in that sense my sense of myself as a potential leader was very much enhanced.</p>	<p>One has to do with the achievement of goals, and sort of, I do follow strategic plans and goal setting personally, etc., but a second is the barometer of the moral and the satisfaction in the work place, and to try to get the best gage I can about how that's going with the people that are under my leadership team.</p> <p>My strengths are, again, sort of setting a strategic direction and helping people stay on focus and on task...My strength is to listen to disparate points of view and really be solid about understanding where they are coming from and seeing how to take those points of view and more them into a cohesive plan... one of the things that I've worked really hard on, that I feel really proud of, there's been a lot of change here, including with the move, big change to the whole organization,... It's hard for me to deal with conflict.</p>
<p>Dr. Brenda 97</p>	<p>Do I see myself as a leader? Yeah. People like to put me on committees because I can get things done on committees, I can get people to work together as a group...People come to me for advice... People come to me with problems... people will use me as a conduit to the chairman... I've been tapped into a leader review of another intellectual center... I function in a management level in my department, mentoring younger individuals advising the chairman as he needs, and being a good representative for my department... I have to manage what goes on in my lab which can reach anywhere from four to ten people... Before ELAM, I was very hesitant... to chair... After ELAM... I don't know if I would really call that leadership but it is a way to get 16</p>	<p>I think I'm still conflicted between the joy I get in research and my skills in administration. So I'm settled into positions where I can exert, affect, and change direction while not leaving the laboratory... I think I've taken more of a leadership role. In leaving ... I was one of a group of basic scientists in the clinical department. I've recognized from my science . . . I've played a leadership role in the department, but not so at an institutional level. Coming here now, I am taking more leadership roles. We've established a clinical research program of which I'm ... I've helped effect recruitments, recruitments of other individuals</p>

	people to focus on a task for a day and a half in a manner that moves forward efficiently.	that I didn't at the University of ... So I would say that I've transitioned to more leadership without sacrificing my role as a scientist so I've been able to expand what I've done.
Dr. Carolyn 97	... my idea of leadership is of someone who provides the vision, who sets the course for action and hopefully inspires followers... I have just been made a vice-president...so I don't have measures yet... it [ELAM] really helped me to see myself in a leadership role... actually wanting to move forward and actively pursuing a step up into an administrative position. I think it just focused my attention more on leadership and administrative issues...it [ELAM] really helped me king[d] of go the next step in terms of thinking about the bigger picture of administration.	...Well, there's clearly for me, a big step up in confidence level, in terms of dealing with the other executives in my institution and in dealing with other executives at other institutions. So I think that I have grown into the role, I've grown into lots more responsibilities than I started out with. I've really had to kind of step up to the plate ... Yeah, my comfort level is much greater. I guess that's really the point is that what was hard for me a few ago, you know, telling faculty members no, they weren't going to get promoted here and they needed to move on. You know, dealing with difficult decisions of that kind somehow come more gracefully and easily to me than they did before... By being honest, by being, you know, forthright, available, listening and trying to really be more of a servant leader than a power-monger.
Dr. Evelyn 97	I think I'm working hard at it and I think my opinions are valued... I don't always get the desired action in as efficient a manner as I would like it. It happens. So maybe my expectation as to ...when change should occur are not met and I'm not sure ... when I think about my definition of leadership, time is factored into that but I guess in order to measure my effectiveness, I have to say that things are happening...And so far they're not happening as fast as I'd like it to happen.	...my ability to motivate others... I'm much more mellow these days, I think... I think I used to be much more intense and much more concerned about having people like me and I think that that intensity ... I mean I think I'm a little more laid back these days and I think I'm enjoying my life more. I led a strategic planning effort and reorganized the department into specific sections and that I chose good people for positions as they became available. I selected people who are well-qualified and

		<p>innovative and you know, are successful so it only enhances my success.</p>
<p>Dr. Frances 97</p>	<p>I find myself as a pretty good one [leader]... I'm continually improving and I regularly make mistakes, so I have continued to input that I need to improve. But, yes, overall I think I do a good job. I also used it[ELAM] as an opportunity to kind of develop my own leadership such as during that year, it was independent of ELAM but the fact that I was in the program is probably what stimulated me to do it, to follow it...kind of my own learning plan that I developed.</p>	<p>Well hopefully in my ongoing leadership development, I think there is incredibly few things that are more important than being able to reflect well, either on the activities of a particular day or on a plan that I'm putting together or on a strategy that I want to take . . . I think reflection is just an incredibly important tool for a leader and I'm not sure you know, part of it is just being in my late forties but I reflect a lot more right now than I did twenty years ago and I think I am a much better leader and frankly, a better person because of it... It was the way in that year that I legitimized the fact that I was working at becoming a better leader, not just working ... you know, working on being a better medical educator. It was a flag to other people that I cared about this stuff and I think that was very important and the other thing that ELAM absolutely did is that it gave me a credential during that year. ...that I otherwise would not have known... I think of myself as a deliberate leader... when I am doing into the office in the morning, I remind myself that how I behave and how I do impacts the people that I come in contact with and where our institution is going and I mean it's almost . . . it's very humbling... If I smile and talk to someone and remember their name, that has much more meaning to their day than it really should but it does and that's . . . you know, that is just one of the remarkable</p>

		<p>privileges of leadership that I think because I decided that I would work at it over the past number of years... I'm definitely more aware of than if somehow I had just kind of wound up in this job now without really looking at leadership over the past fifteen to twenty years... I do think that I've gotten much better at it and how I shaped that in my mind...</p>
<p>Dr. Gail 97</p>	<p>It [ELAM] really helped me see that I had come at peace in my professional development. It provided the opportunity for me to look at myself along a continuum... And so to the extent that I can be a better partner for the dean and he has made me a full partner. I mean, there are days when I feel like co-dean . . .</p>	<p>It's gotten less formula-driven... it's much more about knowing your institution and appreciating nuance and having a very much a . . . either an intellectual or a scientific base from which you're drawing your leadership. Like knowing there's substance in the work of your institution. Yeah, you need the basic skills and yeah you need to go through a series of learning experiences to tend that bag of tools and that toolkit but after a while, . . . you really just have to get inside the work and remind yourself of the power of collaboration and . . . and working with people who can help you present your ideas effectively... So it's a number of years later and you know, you just change and change in terms of what you're willing to take on. You don't need to see this one more time. If it didn't work . . . when you first learn . . . I came away with having a healthy respect for cutting your losses in watching leadership and in watching how they do the things and watching others... I've gained a real appreciation for the game and the long game. You need to see the play and ELAM gave me this really deep respect for reflection and observation...</p>

Dr. Freda 99	I think I'm getting better at it as I'm becoming more educated. I think I tend to assume that most people are like me, and I think it's not actually true. It's my view of administration that's changed, and my role in administration, and seeing where the limitations are and where I can be effective based on my personality type.	I think I'm evolving to a point where you know, now I'm much more effective doing policy and I spend a lot more time with the board and I spend less time with the staff and a lot less time with all of the people that the staff are working with, you know?
Dr. Gloria 99	There are different little prospects within those definitions I think that I think I've achieved. There are some other areas I think I have to work harder on being able to get that together. I think part of it depends on the group that you are trying to lead and how you are able to get those diverse populations together for which goal. Some of them I've been able to achieve and some of them I am still working on... you realize how much you are actually able to and you may not have felt as competent in your own capabilities... the one thing I learned is to be a little more confident in my own capabilities.	... looking at what the movement is within the institution. You know, how you're doing and accomplishing what you think the goals are, the missions are for your institution or your division... So that when something doesn't go your way, or there is somebody fighting against it, it's not specifically because it's against you and I think, with that, I have become less defensive about some things, which I think helps to build a better leader... one of the benefits that I've had in growing and maturing, as a leader has been that I have been in the same institution now for thirty years.
Dr. Irene 99	...just seeing where the program goes, I mean the biggest thing is, "Okay, where were we 6 months ago?" for example and where are we now. How are my individual faculty and staff doing in the program. So, there are goals and objectives and things that are set, although I'm not responsible for everything they do, their success is a good measure of my ability as a leader.	This is a role up your sleeves and be willing to invest the time position... I think the big thing was to get the school to grow. .. even on a really crap day, I honestly can say that I have learned more, grown more, understood more about how to lead and about who I am as a leader in these last two and a half years than at any other point in my professional life, ever... so there were things I have known that I wanted to do or be as a leader, but it took a while to really have that integrate with me and have that resonate enough to suddenly be doing it... You've got to be ready for people to leave; over and over and over again... There's no way there you can be

		<p>effective if you think your mandate is to keep people happy... Also, the ability to change culture means over and over, this is another very female thing; I am not here to be liked... But you do have to be about equity... And that gets you respect... I care deeply about what I do and I care deeply about everybody here.</p>
Dr. Janet 99	<p>It is high enough up that I can exert some influence, though a little bit peripheral to the main leaders – that's by position... There I do a little bit better than by the strict definition than by titles. I feel my own impact as a leader is still limited at my institution.</p>	<p>I learned from ELAM, I have natural tendency this way, I guess I do understand leadership ... in fact I often say that in ... education with this big portfolio I have, my advantage is that I am not a content expert, I can't possibly do it myself. So I am not in danger, I have to give it to other people. I have to trust them, I have to facilitate, I have to make sure that the job is done, but you don't have to be a content expert to do that... I really work on supporting others to get the job done and then you can see it grow and you can be the one to Shepard it and guide it... This is about bringing all of these other people along and making something that they will feel a part of and that will take and that was... a big switch for me and I think that is the leadership challenge... it isn't what they want... It's what you want. The trick for me was, I did in the end, and that's what takes time, I did get something that I can live with, that I am happy with, but I think it's also what other people want.</p>
Dr. Olivia 99	<p>...I think I do very well in my leadership in some of my more defined kinds of things in working with my medical students and with my... I feel like I'm a leader in our ... program here ... so working with our faculty, with our</p>	<p>I'm pretty successful. In, especially because, because I don't really see myself as being... like a big leader, I'm a little leader... I don't like ... some things that go along with leadership... but</p>

	students with that kind of thing... I feel like I do pretty well there too in running the ... clinic.	that I can be a leader in other ways in terms of some of my teaching and things... And some things that are, even though I may not be good at it, like some of the financial things that you still have to know about things and still be able to converse about it... I tried to be able to get in some of those kinds of things about kind of decision making and not so much per se leadership as really being kind of a stronger woman.
Dr. Teresa 99	I feel somewhat successful. I think when I finish [with what] I am currently involved with, if it goes well in the end and I get a faculty vote, I'll feel like I've really been successful employing a lot of the tools I learned at ELAM to help me with this large project.	... it just would not have entered my mind, there is no doubt about it... I would probably still be the associate dean for I wouldn't have even accepted that position in ... I don't think, because the only reason that I accept that position was because I thought this will broaden my base of knowledge of administration ... and may enable me to have options moving forward. To be honest with you, well I never thought that I would be ... of a ... I don't know if you, if you understand, that you know that I'm a ...
Dr. Abbey 99	I have some of those skills naturally anyway so it's a nice match for both my own skills and how I think about leadership. I think in terms of measuring myself again, although I have those natural skills it was really the ELAM experience that crystallized for me that those things were useful and could become a model of leadership.	I don't make those kinds of sweeping comments about stupid administrators like I used to... if I relate it to my situation now, a group of people come to work with you... they make a commitment to work in this particular group and my commitment is to do a whole number of things from make sure they've got the basic necessities of basic computers and infrastructure to do the work... which require negotiating with those horrible administrators...then there is the piece of

		deciding how to use each person's skills maximally and ... build the skills they don't have so that the work group that I select has a whole set of interactive skills and there, for me, the responsibility for building those people so that they feel like they are growing within the program... making, sometimes, very hard decisions about when people aren't working out well...
Dr. Samantha 99	I guess my goal is to really be a leader – to use whatever position I'm in and actually be a leader.	I think I learned to try to listen more... I think listening is very helpful. There were sometimes messages about different ways that I could have handled something that I didn't hear because I was to [o] busy doing. I think I am a better listener than I used to be.

APPENDIX Q: SUMMARY TABLE FOR PERFORMANCE ACCOMPLISHMENTS SUB-QUESTION

ILLUSTRATING THE NUMBER OF COMMENTS PER PARTICIPANT AND OVER TIME

Study Participant	Source1PA SD-Negot.		Source1PA SD-Deleg.		Source1PA SD-B/Fin.		Source1PA SD-Com.		Source1PA SD-Politic		Source1PA SD-Leader		Source1PA Decis-Mak		Source1PA Goal Setng		Total # of References	
	T-1	T-2	T-1	T-2	T-1	T-2	T-1	T-2	T-1	T-2	T-1	T-2	T-1	T-2	T-1	T-2	T-1	T-2
Mary 96	0	0	0	0	0	0	0	2	0	4	2	4	0	6	0	0	2	16
Ellen 96	0	0	0	0	0	0	3	5	0	5	5	10	2	0	2	3	12	23
Earlene 96	2	4	2	0	0	2	7	0	0	1	3	3	0	0	0	1	14	11
Harriet 96	0	5	0	0	3	1	1	2	2	1	2	3	0	1	0	1	8	15
Donna 96	0	0	3	0	3	0	2	0	1	1	4	5	2	4	1	5	16	15
Maggie 96	0	0	0	0	0	0	0	0	0	0	4	7	0	0	4	2	8	9
Brenda 97	1	3	0	0	3	2	1	0	0	4	7	13	1	2	4	2	17	26
Carolyn 97	2	0	1	0	0	0	0	0	2	0	5	3	0	6	2	0	12	9
Evelyn 97	1	1	0	0	0	2	2	1	0	0	2	4	2	0	1	0	8	8
Frances 97	0	0	0	0	0	0	0	0	0	1	4	4	0	4	2	0	6	9
Gail 97	0	1	0	0	4	1	1	0	0	1	2	3	0	4	0	1	7	11
Freda 99	0	0	0	4	0	0	0	0	1	2	3	1	0	3	5	0	9	10
Gloria 99	0	0	4	1	0	0	2	0	0	4	3	3	0	7	0	1	9	16
Irene 99	3	3	0	0	1	0	1	4	2	10	2	20	0	3	0	0	9	40
Janet 99	0	12	2	3	1	0	0	5	0	0	2	5	0	3	1	3	6	31
Olivia 99	0	0	0	2	0	0	0	0	0	0	1	3	0	8	0	0	1	13
Teresa 99	0	0	0	2	1	1	0	1	0	2	1	6	0	2	1	1	3	15
Abbey 99	1	5	0	0	0	0	4	1	0	2	1	2	0	1	0	0	6	11
Samantha 99	0	4	0	0	1	4	0	6	0	7	1	1	0	1	0	4	2	27
Totals	10	39	12	12	17	13	24	27	8	45	54	100	7	55	23	24	155	315
Combined Totals	(49)		(24)		(30)		(51)		(53)		(154)		(62)		(47)		(470)	

Source 1PA = Self-Efficacy Source - Performance Accomplishments

SD = Skill Development (Theme and *Subthemes) Decision-Making (Theme) Goal Setting (Theme)

*Negotiation *Budgeting and Finance *Political Savvy

*Delegation *Communication *Enhancing Leadership Development

SUMMARY TABLE FOR VICARIOUS EXPERIENCES SUB-QUESTION ILLUSTRATING THE NUMBER OF COMMENTS PER PARTICIPANT AND OVER TIME

Study Participant	Source2VE MN-MnOt		Source2VE MN-Dn+		Source2VE NET-Inter		Source2VE NET-Exter		Source2VE NET-Frien		Source2VE MOD-PfSim		Source2VE MOD-Diverse		Total # of References	
	T-1	T-2	T-1	T-2	T-1	T-2	T-1	T-2	T-1	T-2	T-1	T-2	T-1	T-2	T-1	T-2
Mary 96	0	1	1	1	0	0	4	0	0	0	2	0	2	0	9	2
Ellen 96	2	5	2	6	0	0	1	0	0	1	0	0	4	0	9	12
Earlene 96	0	8	1	5	0	0	2	0	0	0	0	1	1	0	4	14
Harriet 96	0	5	5	1	0	0	3	0	1	0	0	1	2	0	11	7
Donna 96	0	3	2	0	1	0	4	0	2	0	0	0	0	0	9	3
Maggie 96	0	4	0	1	0	0	1	0	0	0	0	0	0	0	1	5
Brenda 97	6	4	0	1	0	0	1	0	0	2	0	0	0	1	7	8
Carolyn 97	0	3	0	3	0	0	3	0	1	1	1	1	0	0	5	8
Evelyn 97	1	3	0	1	2	0	0	0	0	1	1	0	0	0	4	5
Frances 97	0	2	3	5	1	2	0	3	0	0	0	1	0	0	4	13
Gail 97	0	3	2	5	0	2	2	1	0	0	1	0	0	0	5	11
Freda 99	4	2	0	1	0	0	3	0	1	2	0	1	0	1	8	7
Gloria 99	0	5	1	3	0	4	2	4	0	0	1	0	0	1	4	17
Irene 99	0	3	2	0	0	0	2	1	0	0	1	0	0	0	5	4
Janet 99	1	11	3	12	0	1	2	0	1	1	0	0	0	0	7	25
Olivia 99	0	6	2	2	0	2	3	0	0	0	0	2	0	3	5	15
Teresa 99	0	4	0	2	0	0	3	7	3	2	1	0	0	2	7	17
Abbey 99	0	1	7	0	0	1	3	2	0	1	0	1	1	1	11	7
Samtha 99	0	1	2	1	1	5	3	0	1	0	1	0	0	6	8	13
Totals	14	74	33	50	5	17	42	18	10	11	9	8	10	15	123	193

(88)

(83)

(22)

(60)

(21)

(17)

(25)

(316)

Source 2VE = Self-Efficacy Source – Vicarious Experiences

MN= Mentoring (Theme - *Subthemes) NET = Networking (Theme - *Subthemes)

MOD =Modeling (Theme -*Subthemes)

*MnOt =Mentoring Others

*Inter = Internal Networking

*PfSim. = Performance Similarities

*Dn+ = Deans and Other Advanced Leaders

*Exter=External Networking

*Diverse = Diversified Modeling

*Frien = Friendships through Networking

SUMMARY TABLE FOR VERBAL PERSUASION SUB-QUESTION ILLUSTRATING THE NUMBER OF COMMENTS PER PARTICIPANT AND OVER TIME

Study Participant	Source3VP SPT-Peer-2-Peer		Source3VP SPT-Deans+		Source3VP Feedback		Total Number of References	
	T-1	T-2	T-1	T-2	T-1	T-2	T-1	T-2
Mary 96	1	0	2	0	0	0	3	0
Ellen 96	1	1	1	0	1	0	3	1
Earlene 96	0	1	0	0	1	0	1	1
Harriet 96	3	0	6	0	5	0	14	0
Donna 96	0	0	0	0	4	0	4	0
Maggie 96	1	2	3	1	1	0	5	3
Brenda 97	3	0	1	1	2	4	6	5
Carolyn 97	1	0	1	0	1	0	3	0
Evelyn 97	1	2	0	0	5	1	6	3
Frances 97	0	0	0	0	0	1	0	1
Gail 97	1	1	6	0	0	1	7	2
Freda 99	5	5	3	0	1	5	9	10
Gloria 99	2	3	0	0	1	0	3	3
Irene 99	6	2	1	1	2	0	9	3
Janet 99	1	0	0	12	0	1	1	13
Olivia 99	0	0	0	2	0	0	0	2
Teresa 99	3	1	0	0	0	0	3	1
Abbey 99	2	0	1	0	1	8	4	8
Samantha 99	2	0	1	0	0	0	3	0
Totals	33	18	26	17	25	21	84	56
	(51)		(43)		(46)		(140)	

Source 3VP = Self-Efficacy Source – Verbal Persuasion
SPT= Support (Theme-*Subthemes) Feedback (Theme)
*Peer-to-Peer
*Deans+= Deans and Other Advanced Leaders

SUMMARY TABLE FOR PHYSIOLOGICAL STATES SUB-QUESTION ILLUSTRATING THE NUMBER OF COMMENTS PER PARTICIPANT*

Study Participants	Time Levels		Total Number of References	
	T-1	T-2	T-1	T-2
Mary 96	0	0	0	0
Ellen 96	0	0	0	0
Earlene 96	0	0	0	0
Harriet 96	0	0	0	0
Donna 96	1	0	1	0
Maggie 96	1	0	1	0
Brenda 97	1	0	1	0
Carolyn 97	0	0	0	0
Evelyn 97	1	0	1	0
Frances 97	0	0	0	0
Gail 97	1	0	1	0
Freda 99	0	0	0	0
Gloria 99	0	0	0	0
Irene 99	0	0	0	0
Janet 99	0	0	0	0
Olivia 99	0	0	0	0
Teresa 99	0	0	0	0
Abbey 99	0	0	0	0
Samantha 99	0	0	0	0
Totals	5	0	5	0

*No themes or Subthemes

SUMMARY TABLE FOR OTHER EXPERIENCES SUB-QUESTION ILLUSTRATING THE NUMBER OF COMMENTS PER PARTICIPANT AND OVER TIME

Study Participant	Q5 Other Exp. Doing Things Differently		Q5 Other Exp. Sponsorship		Q5 Other Exp. Resilience		Total Number of References	
	T-1	T-2	T-1	T-2	T-1	T-2	T-1	T-2
Mary 96	0	0	0	0	0	0	0	0
Ellen 96	0	1	0	1	0	0	0	2
Earlene 96	3	1	0	0	0	0	3	1
Harriet 96	0	0	2	0	0	0	2	0
Donna 96	7	0	0	0	0	0	7	0
Maggie 96	2	1	0	0	0	1	2	2
Brenda 97	3	1	0	0	0	0	3	1
Carolyn 97	0	0	0	0	0	0	0	0
Evelyn 97	2	0	0	1	0	0	2	1
Frances 97	0	0	0	0	0	0	0	0
Gail 97	0	0	2	0	0	3	2	3
Freda 99	0	3	0	0	0	0	0	3
Gloria 99	1	4	0	0	0	0	1	4
Irene 99	1	4	0	0	2	1	3	5
Janet 99	0	6	0	8	0	2	0	16
Olivia 99	0	0	0	0	0	0	0	0
Teresa 99	1	1	0	0	0	0	1	1
Abbey 99	0	3	1	0	0	1	1	4
Samantha 99	1	2	0	0	0	0	1	2
Totals	21	27	5	10	2	8	28	45

(48)

(15)

(10)

(73)

Q5 = Question 5 Other Experiences