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College Students' Experiences with Mental Health:

Sorority Members, Anxiety, and Depression

A Dissertation Submitted in Partial Fulfillment
of the Requirements for the

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ABSTRACT

College student mental health is a significant issue for educational leaders, as mental health needs are increasing in prevalence and severity (ACHA, 2013; Gallagher, 2013). Eisenberg, Downs, Golberstein, and Zivin (2009) note that mental health issues cause adverse occupational, academic and social outcomes, impacting student success, retention, and persistence (Belch, 2011; Cleary, Walter, & Jackson, 2011). Anxiety and depression, which are more prevalent in women (ADAA, 2007; APA, 2013), are the most common mental health issues affecting college students (ACHA, 2013; Gallagher, 2013).

Coyne and Downey (1991) correlated social support with improved mental health outcomes. Baron (2010) indicated that involvement in student organizations may promote development and connection, thereby enhancing learning and retention (Chambliss & Takacs, 2014). Female students may engage in campus life by joining sororities, which are prominent and influential on many campuses (Lien, 2002). The purpose of this research was to investigate sorority member mental health, specifically anxiety and depression. The relationships between anxiety, depression, and student characteristics were examined.

This correlational, ex-post facto study explored the presence and severity of anxiety and depression of women (N =72) who self-identified as living in sorority housing. Permission was obtained to review data from the 2013-2014 Healthy Minds Study (Eisenberg & Lipson, 2014), including demographic information and results from the PHQ-9 (Kroenke, Spitzer, & Williams, 2001) and the GAD-7 (Spitzer, Kroenke, Williams, & Löwe 2006). Data analyses produced frequencies, correlations, and t-tests.

Findings revealed the following: 20% of respondents reported anxiety, with 8% percent reporting severe anxiety; 15% of respondents reported depression, with 5% reporting major depression. Financial difficulty was correlated with depression (r =.27, r^2=.07, p=.008) and a significant relationship existed between the presence of anxiety and depression (r=.36, r^2=.13, p=.004). No statistically significant difference existed in reported symptoms of anxiety and depression of women residing in sorority housing compared to those residing elsewhere. Information about mental health may assist sororities in providing support and resources to members. Educational leaders, mental health practitioners, faculty, and student affairs staff can also benefit from this information as they work to help address student mental health needs, student retention, persistence, and success.

I. INTRODUCTION

Student mental health presents a challenge for educational leaders, due to increasing prevalence and severity on college campuses (ACHA, 2013; Belch, 2011; Cleary, Walter, & Jackson, 2011; Eisenberg, Hunt, & Speer, 2013; Gallagher, 2013; Hunt & Eisenberg, 2010; Iarovici, 2014; Kadison & DiGeronimo, 2004; Kay & Schwartz, 2010; Kitzrow, 2003). Anxiety and depression are the most common mental health issues reported by college students (ACHA, 2013; Eisenberg, Hunt, & Speer, 2013; Gruttadaro & Crudo, 2012) and campus counseling center directors (Gallagher, 2013). Research indicates adverse occupational, academic and social outcomes for students as a result of mental health issues (ACHA, 2013; Eisenberg, Hunt & Speer, 2013; Gallagher, 2013; Hunt & Eisenberg, 2010; Iarovici, 2014; Kay & Schwartz, 2010). These issues can impact not only the affected students themselves, but also those around them, including fellow students (Eisenberg et al., 2009; Iarovici, 2014; Kay & Schwartz, 2010). If these issues are not addressed, student retention, persistence, and success are at risk (Hartley, 2010).

Research indicates that many campus-based mental health center staff are significantly overworked and underfunded (Gallagher, 2013; NAMI, 2012; Reetz, Barr, & Krylowicz, 2013). Centers may not have enough staff to meet demand, particularly for psychiatric services (Iarovici, 2014; Kay & Schwartz, 2010), or enough space and resources with which to complete their work (Gallagher, 2013). Given high caseloads, campus mental health providers have limited time to do outreach and educational programming with students, faculty, and staff (Gallagher, 2013); yet it is estimated that just 30% of students who have mental health issues access services through campus mental health centers. (ACHA, 2013; Eisenberg, et al., 2009; Cranford, Eisenberg, &

Serras, 2009). Educational leaders should consider how to reach, educate, and engage students outside of the campus counseling center setting as they try to meet the mental health needs of students.

Problem Statement

The mental health needs of college students are increasing in prevalence and severity (ACHA, 2013; Belch, 2011; Cleary, Walter, & Jackson, 2011; Gallagher, 2013; Hunt & Eisenberg, 2010; Kitzrow, 2003). Student retention, persistence, and success have been shown to be negatively impacted by mental health issues (Gruttadaro & Crudo, 2012; Hartley, 2010), not only for the individual with the issue, but also for those around them (Eisenberg et al. 2009; Gruttadaro & Crudo, 2012). Mental health issues can also negatively impact social relationships (Belch, 2011).

On college and university campuses, anxiety is the most prevalent and chronic of all mental health disorders (ACHA, 2013; Jane-Llopis & Matytsina, 2006), with 51% of undergraduates reporting overwhelming feelings of anxiety in the previous 12 months (ACHA, 2013). Nearly 85% of students reported feeling overwhelmed by all they had to do during the previous twelve months (ACHA, 2013). Depression is also commonly experienced by undergraduates; within the previous 12 months, 47% of undergraduates reported they felt “that things were hopeless”, and 31% reported feeling “so depressed it was difficult to function” (ACHA, 2013).

Research indicates that underlying anxiety and depression are often co-morbid with disordered eating and substance abuse (Dobmeier et al., 2011; Larimer, Turner, Mallett, & Geisner, 2004). While research on sororities and mental health primarily focuses on either alcohol abuse (Pike, 2000; Sher, Barthlow, & Nanda, 2001; Vohs, 2008) or

disordered eating (Basow, Foran, & Bookwala, 2007; Becker, Bull, Schaumberg, Cauble, & Franco, 2008; Becker, Smith, & Ciao, 2005), the underlying anxiety and depression (Dobmeier et al., 2011; Kaye, Bulik, Thornton, Barbarich, & Masters, 2004; Larimer et al., 2004; Vohs, 2008) appears to be minimally addressed in the literature (Biddix, Matney, Norman, & Martin, 2014). Anxiety and depression might influence or develop into maladaptive behavioral choices or other mental health disorders if not addressed. Early assessment and identification of potential issues are crucial.

Exploration of the prevalence of anxiety and depression within a sorority-specific population could impact understanding of the presence and development of alcohol abuse and disordered eating. Given the disruptive impact these issues can have on student retention, persistence, and success, an assessment of member experiences with the most common mental health issues, specifically anxiety and depression, should be considered. This information may help inform the development and delivery of interventions, strategies, and policies to address sorority member mental health.

Purpose Statement

The purpose of this ex-post facto, correlational, quantitative study was to explore the prevalence and severity of anxiety and depression in a sorority member population through member self-reporting. This study sought to address the gap in the literature regarding mental health and sorority members, specifically member experiences with anxiety and depression. Data about the presence of anxiety and depression can inform how students are assessed and how interventions/services are developed and delivered (Eisenberg, Hunt, & Speer, 2013).

Information about the relationships between sorority member characteristics that

may indicate potential risk for mental health issues and the prevalence and severity of anxiety and depression amongst sorority members may help inform educational leaders, individual chapters and members, campuses and governing organizations in determining how to best assist their members with these issues while managing risks and resources. Existing data from the Healthy Minds Study, conducted during the 2013-2014 academic year, including anxiety and depression screening tools, was reviewed and analyzed. The relationship between student variables (including age, grade point average, financial status, year in school) and these symptoms were explored using correlational statistics.

Research Questions

This study addresses sorority members' self-reported symptoms of anxiety and depression, as reported in a nationally administered mental health survey. The following questions were used to guide the study:

1. What is the presence and severity of symptoms of anxiety of women who identify as living in a sorority house?
2. What is the presence and severity of symptoms of depression of women who identify as living in a sorority house?
3. What is the relationship between age, grade point average, financial status, employment status, year in school, and the presence of anxiety/anxiety symptoms?
4. What is the relationship between age, grade point average, financial status, employment status, year in school, and the presence of depression/depressive symptoms?
5. Is there a significant difference between the self-reported symptoms of anxiety and depression in women, 18-22, who reside in sorority housing compared to those who live in non-sorority housing?

Definition of Terms

Alcohol Abuse	Characterized by a maladaptive pattern of alcohol use, leading to significant impairment or distress, which may include recurrent use resulting in failure to fulfill major role obligations, use in physically hazardous situations, alcohol related legal problems and continued use of alcohol despite social and interpersonal problems exacerbated by the use (APA, 2013).
Anxiety Disorder	There are several disorders that fall under the classification of *anxiety disorder*, including Panic Disorder, Obsessive-Compulsive Disorder, Posttraumatic Stress Disorder and Generalized Anxiety Disorder. Each disorder has its own distinct characteristics, but all involve the feelings of extreme, excessive and irrational fear and dread. They are serious medical conditions that can cause significant impairment in everyday functioning (APA, 2013; Kadison & DiGeronimo, 2004).
Comorbidity	The presence of more than one distinct condition in an individual (Valderas, Starfield, Sibbald, Salisbury, & Roland, 2009).
Depression	While depression is itself is not a psychiatric diagnosis, several mood disorders are commonly characterized as *depression*: Major Depressive Disorder, Dysthmia, and Bipolar Disorder (with accompanying mania). These disorders may include the following symptoms: difficulty concentrating, remembering details, and making decisions; fatigue and decreased energy; feelings of guilt, worthlessness, and/or helplessness; feelings of hopelessness and/or pessimism; insomnia, early-morning wakefulness, or excessive sleeping; irritability, restlessness; loss of interest in activities or hobbies; appetite changes; and persistent feelings of sadness or emptiness (APA, 2013).
Eating Disorder	Umbrella term, often referring to anorexia nervosa (in which self-imposed starvation is used to lose weight) and/or bulimia nervosa (in which binging/purging is used to lose weight) (APA, 2013; Kadison & DiGeronimo, 2004).
Greeks/Greek Life	Typically, Greek letters organizations are single-sex, initiatory organizations with membership considered active during the undergraduate years. These use of these phrases to describe fraternities and sororities is decreasing, as *Greek*

	is considered a nationality as opposed to an organizational descriptor (Biddix et al., 2014).
Mental Health	A state of well-being in which every individual realizes his or her own potential, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to her or his community (WHO, 2015).
National Panhellenic Conference (NPC)	An advocacy and support organization for the advancement of the sorority experience. Provides support and guidance for its 26 member inter/national sororities/women's fraternities and serves as the national voice on contemporary issues of sorority life (NPC, 2013). One of the oldest and largest women's membership organizations representing more than 4 million women at 655 college/university campuses and 4,500 local alumnae chapters in the U.S. and Canada. The organizations that are NPC members have traditionally and historically had Caucasian membership.
Sorority	Fraternal social organization for undergraduate females, often designated by Greek letters. Sororities may be local (unique to a particular college or university) or may be national, with chapters at multiple campuses.
Persistence	Continued enrollment and degree completion at any higher education institution — including one different from the institution of initial enrollment (National Student Clearinghouse Research Center, 2014).
Retention	Continued enrollment within the same higher education institution in the fall semesters of a student's first and second year (National Student Clearinghouse Research Center, 2014).

Background of Study

The undergraduate college years, particularly for those students of traditional college age (18-24 years), are a time of significant transition and personal development (Iarovici, 2014) and are often highly stressful for students (Bland, Melton, Welle, & Bigham, 2012). It is during these very years that the onset of most lifetime mental health occurs (APA, 2013; Eisenberg, Hunt, Speer, & Zivin, 2011; Gruttadaro & Crudo, 2012).

The number of students with psychiatric disabilities are beginning to surpass the number of students with ADHD and learning disabilities combined (Lundquist, 2011). Female college students report higher rates of mental health issues and use of mental health services than men (Yorgason, Linville, & Zitzman, 2008). Despite this, many students with mental health issues, some of which do not emerge until they are in college, are not in treatment (Belch, 2011). Educational leaders and college/universities need to be aware of, assess, and take steps to address the ongoing mental health needs of students (Iarovici, 2014; Kay & Schwartz, 2010; Kitzrow, 2003).

College Student Mental Health

Research indicates that college student mental health needs are increasing in prevalence and severity (ACHA, 2013; Belch, 2011; Cleary, Walter, & Jackson, 2011; Eisenberg, Hunt, & Speer, 2013; Gallagher, 2013; Hunt & Eisenberg, 2010; Iarovici, 2014; Kadison & DiGeronimo, 2004; Kay & Schwartz, 2010; Kitzrow, 2003), with high profile incidents of campus violence and suicide focusing increased attention on these issues (Iarovici, 2014; Kay & Schwartz, 2010). Potential negative outcomes of mental health issues on student retention, persistence, and success are felt not only by the affected student, but across the campus community (Eisenberg et al., 2009). Peers, faculty, and staff can all be impacted by the presence of untreated mental health issues (Eisenberg et al., 2009).

Anxiety and depression are the mental health issues most commonly reported by college students (ACHA, 2013; Gallagher, 2013; NAMI, 2012). Anxiety is the most prevalent and chronic of all mental health disorders (Jane-Llopis & Matytsina, 2006) with 51% of undergraduates reporting overwhelming feelings of anxiety (ACHA, 2013).

Depression is also common, with 31% of undergraduates reporting they felt so depressed that it was difficult to function (ACHA, 2013). More than a third of students reporting symptoms of anxiety also had symptoms of depression (Eisenberg, Gollust, Golberstein, & Hefner, 2007).

The overlap between anxiety, depression, and substance abuse is significant amongst college students (Iarovici, 2014). Students may attempt to manage symptoms related to anxiety and depression with alcohol and marijuana use (Iarovici, 2014). These use of these substances, however, can potentially exacerbate, and even cause, problems with anxiety and depression (Iarovici, 2014).

Campus Mental Health Services. Nearly all colleges and universities have some type of mental health services available for students, usually a campus counseling center (Eisenberg et al., 2011). Many of campus counseling center directors, however, report that their centers are understaffed and underfunded despite high demand from students for services (Gallagher, 2013). Directors report there is minimal time available for student, faculty, or staff outreach, consultation, and educational programming (Gallagher, 2013).

According to the National Center for Educational Statistics (NCES) (2014), females account for the majority of enrolled college and university students. College women are more likely to present for mental health treatment than males, increasing the demand on campus mental health services (Iarovici, 2014). While there have been increases in the enrollment rates of Blacks and Hispanics, the majority of enrolled students continue to be Caucasian (NCES, 2014). High demand for mental health services exists even as it is estimated that only 30% of students with mental health issues access campus

services (ACHA, 2013; Eisenberg, et al., 2009; Cranford, Eisenberg, & Serras, 2009).

Mental Health and Female Students. Females are significantly overrepresented in undergraduate student populations (Iarovici, 2014). Mirroring the general adult population, college women are more likely than men to have anxiety (Eisenberg, Gollust, Golberstein, & Hefner, 2007) and depression (Iarovici, 2014). Women have significantly higher mean scores than men on scales measuring depression, general and social anxiety, and eating concerns (Center for Collegiate Mental Health, 2013). Among students who abuse alcohol, it is more common for women to present with a pre-existing mood disorder (Iarovici, 2014).

Mental Health and Sorority Members. Social sororities exist on over 800 college and university campuses across the United States (Bolen, 2013). The largest governing organization of sororities in the United States, the National Panhellenic Conference (NPC) reports having over 325,00 active, undergraduate members (NPC, 2013). Much of the current research on mental health and sorority members primarily focuses on two topics: alcohol abuse (Pike, 2000; Sher, Barthlow, & Nanda, 2001; Vohs, 2008), and disordered eating (Basso, Foran, & Bookwala, 2007; Becker, et al., 2008; Becker, Smith, & Ciao, 2005). Anxiety and depression have been shown to be both pre- and co-morbid factors for both issues (Kaye et al., 2004; Iarovici, 2014, Vohs, 2008). Despite this, there appears to be minimal research addressing the prevalence and severity of anxiety and depression within a sorority specific population.

Methodology

The methods by which this dissertation research was completed represent a change from the researcher's dissertation proposal. Initially, the goal of the study was to explore the prevalence and severity of anxiety and depression within the undergraduate membership of a national sorority, with a survey tool adapted, with permission, from the Healthy Minds Study, by directly surveying the undergraduate population of a large, national sorority. Endorsement for the study was requested and received from the NPC (Appendix A), the largest sorority governing and advocacy organization.

All 26 NPC member organizations were informed of the study endorsement by NPC staff, and were contacted via email by the researcher with the opportunity to participate in the study. None of the contacted organizations chose to participate in the study. As such, the researcher sought to utilize ex-post facto data—collected from a national mental health survey—to explore the presence, severity, and student correlates of anxiety and depression in a sorority member population. The use of these survey data begins to address the gap in the literature regarding sorority mental health by measuring the prevalence and severity of anxiety depression and associated student characteristics amongst undergraduate women that self-identified as residing in a sorority residence.

Research Design

This study employed a correlational design utilizing ex-post facto data. Relationships between age, grade point average, financial status, and year in school and self-reported symptoms of anxiety and depression were examined. One of the goals of this research was to investigate the presence and significance of such relationships. This design allowed for the use of data from the Healthy Minds Study, an existing, multi-site national

study of student mental health. While there have been numerous other analyses of the Healthy Minds Study survey data (Eisenberg et al., 2009; Eisenberg et al., 2005; Eisenberg, et al., 2007; Eisenberg, Hunt, & Speer, 2013; Eisenberg et al., 2011; Eisenberg et al., 2012), these existing analyses do not specifically address the presence and severity of anxiety and depression in sorority women.

Sampling

Colleges and universities in the United States voluntarily choose to enroll in the Healthy Minds Study, and pay a fee for participation. For those institutions that do participate, a random sample of 4,000 students is drawn from the student body; if an institution has less than 4,000 students, the entire population is surveyed (Eisenberg & Lipson, 2014). The expected response rate each year is approximately 25% (D. Eisenberg, personal communication, December 13, 2013).

Instrumentation

Surveys can provide significant information about the study subjects, with the information coming directly from the subject themselves (Fink, 2006). Questions regarding demographic information, including age, year in school, financial status, employment status and grade point average are included at the start of the Health Minds Study survey instrument. The Healthy Minds Study utilizes several specific clinical measures, only two of which were utilized in the present study—Patient Health Questionnaire-9 (PHQ-9) (Kroenke, Spitzer & Williams, 2001) and Generalized Anxiety Disorder Assessment (GAD-7) (Spitzer, Kroenke, Williams, & Löwe, 2006). Both the PHQ-9 and GAD-7 are widely used in a variety of settings and are well-known for measuring symptoms of depression and anxiety, respectively (Eisenberg et al., 2011;

Kroenke, Spitzer & Williams, 2001; Spitzer et al., 2006).

The PHQ-9 is the nine item depression scale included in the longer and more comprehensive Patient Health Questionnaire (PHQ), and inquires about symptoms over the preceding two weeks (Kroenke et al., 2001). The Generalized Anxiety Disorder Assessment (GAD-7) is also a sub-scale of the longer PHQ and inquires about anxiety symptoms in the last two weeks. It includes seven questions related to anxiety symptom criteria, assessing for the presence and severity of symptoms (Spitzer et al., 2006).

Support for the content and construct validity of the instruments is based on the literature and expert reviews (Kroenke et al., 2001; Spitzer et al., 2006). Internal reliability of both PHQ-9 and GAD-7 data are high, with each having a Cronbach's α of 0.89 (Kroenke et al., 2001; Spitzer et al., 2006). Both measures are based on symptoms and diagnostic criteria included in the *Diagnostic and Statistical Manual for Mental Disorders, 4th edition* (APA, 2013). Research on the PHQ-9 supports strong construct validity as measured by the correlation of increasing PHQ-9 severity scores and worsening functioning as measure by SF-20 scales (Kroenke et al., 2001). The inter-correlations between GAD-7 results and results from other measures, such as the PHQ-9, Rosenberg Self Esteem scale, and the Questionnaire on Life Satisfaction, indicate that the GAD-7 also has strong construct validity (Spitzer et al., 2006).

Data Collection

This research utilized existing data collected as part of the Healthy Minds Study during the 2013-2014 school year. The researcher requested and received access to the Healthy Minds data via email (Appendix B). The data from the Healthy Minds Study is collected to provide participating institutions with information regarding their students'

mental health and help seeking behaviors (Eisenberg & Lipson, 2014). For the purposes of these analyses, data regarding PHQ-9 and GAD-7 results, for those undergraduate women who identified as living in a sorority house, were specifically isolated and analyzed; 'help seeking' behaviors were not addressed in the present research.

Data Analysis

Data from the Healthy Minds Study, conducted during the 2013-2014 school year, was uploaded into the Standard Package for Statistical Sciences (SPSS) software for statistical analysis. For research questions 1 and 2, frequencies, percentages, means, and standard deviations were determined. For research questions 3 and 4, a series of correlations were utilized to determine if relationships existed between scores on anxiety and depression screenings and student age, year in school, years of membership in sorority, financial status, employment status, and GPA. Where significant relationships were found, effect sizes were reported.

Limitations/Delimitations

Limitations

Potential limitations to this study are:

- Mental health issues are personal, and there is still significant stigma about mental health on college and university campuses. As such, some students may have chosen not to participate in the Healthy Minds study, or may not have been honest in their responses and self-reports regarding symptoms of anxiety and depression. To mitigate this, the Healthy Minds Study is conducted via web-based survey, and data is treated confidentially.
- The researcher was not involved in the development of the Healthy Minds Study nor in the collection of the data. However, the Healthy Minds Study is a well-established, multi-year, multi-site study, first developed in 2005. The Healthy Minds Study incorporates several scales and instruments that have independent external validation and utility, such as the PHQ-9 and GAD-7.

- The Healthy Minds Study survey instrument for the 2013-2014 year did not specifically ask respondents about membership in a social sorority. A question was included on the survey that asked respondents to indicate where they lived. A response option for this question was ‘fraternity or sorority house’. The data was filtered to specifically include women who responded that they resided in a ‘fraternity or sorority house’. Women who are members of a sorority but do not reside in fraternity or sorority housing were not included in this study’s data analysis. In addition, it is possible that women who responded yes to living in a ‘fraternity or sorority house’ may not actually be members of a sorority. Given this limitation, the data may not be generalizable to all sorority members. A question specific to sorority membership has been added to the Healthy Minds Study survey for the 2014-2015 year.
- Knowledge about anxiety and depression could be a limitation of this study. The intended subjects are traditionally-aged college students. They may be unaware of the signs and symptoms of anxiety and/or depression. As a way to mitigate this limitation, established self-report scales that ask specific questions about several types of anxiety and depression symptoms were utilized to better understand more about the students’ experiences with these issues.

Delimitations

Potential delimitations to this study are:

- The age of the selected student will be limited to current, full-time, traditionally college-aged students (18-24), which may exclude some women who are members of sororities. Given that the data was collected by other researchers, this threat could not be mitigated for the purposes of this study.
- The results of this study may be not generalizable to all sorority members, given the small sample size and lack of demographic information specifically indicating sorority membership. Given the use of ex-post facto data, it was difficult to mitigate this threat in the context of the present study.

Resulting Actions

The management of student mental health and sororities are complex endeavors, rife with liability and risk, impacted by increasingly limited resources. Specific information about sorority member experiences with anxiety and depression is needed in order to assist sororities—at local, regional and national levels—, student affairs personnel, and educational leaders in determining how to best provide support to

student members who are facing these serious issues. The delivery and possible diversification of mental health services, beyond the campus counseling center, may also be informed by this study.

Summary

This correlational, quantitative research study examined the self-reported symptoms of anxiety and depression by female undergraduate students, self-identified as residing in a sorority house, who participated in the Healthy Minds Study during the 2013-2014 academic year. The prevalence and severity of symptoms of anxiety and depression in this population were measured. The presence of statistically significant relationships between the student variables of age, GPA, year in school, financial situation and employment status were determined through correlational analysis.

In order to determine potential policies, practices, and interventions that might directly impact the mental health and behavior of students in sororities, a better understanding of the prevalence of anxiety and depression in this population is needed. Increased understanding of the relationship between mental health and other individual factors, such as student demographics, may assist campuses in identifying and targeting interventions towards those groups of students at higher risk for mental health difficulties (Eisenberg, Hunt, & Speer, 2013; Iarovici, 2014). The diversification of services to reach students to address mental health issues beyond the campus counseling center appears warranted, and is beginning to occur on some campuses (Gallagher, 2013; Kay & Schwartz, 2010).

Chapter II contains a literature review of historical and recent research in the areas of college mental health and sororities. It highlights the limitations of the existing

research on the subject, and identifies the gaps that the present study attempted to address.

II. LITERATURE REVIEW

"The student's peer group is the single most potent source of influence on growth and development in the undergraduate years" (Astin, 1993, p. 398)

Introduction

Mental health issues are highly prevalent within the college population in the United States (ACHA, 2013; Belch, 2011; Bryd & McKinney, 2012; Cleary, Walter, & Jackson, 2011; Dobmeier et al., 2011; Eisenberg, Hunt,& Speer, 2013; Gallagher, 2013; Iarovici, 2014; Kadison & DiGeronimo, 2004; Kay & Schwartz, 2010; Keyes et al., 2012; Kitzrow, 2003; Mowbray et al., 2006; Soet & Sevig, 2008; Yorgason, Linville, & Zitzman, 2008), and are the fastest growing category of disability on college and university campuses (Belch & Marshak, 2006; Mowbray et al., 2006). Anxiety and depression are the most commonly reported mental health issues among college students (ACHA, 2013; Gallagher, 2013; Eisenberg & Lipson, 2014; Reetz, Barr, & Krylowicz, 2013). Colleges and universities are faced with the challenge of providing comprehensive mental health services and supports to an increasing number of students (Kay & Schwartz, 2010) within an ever-challenging budgetary environment (Hunt, Watkins, Eisenberg, 2012).

Baron (2010) noted that during the time of transition to college, young adults cope with many changes, including the loss and absence of previous support systems, while trying to form new ones. According to Baron, student engagement, particularly involvement in student organizations, enhances the overall educational experience. Involvement in organized groups can help in promoting student development and connection, new support systems, learning, retention, and supporting the institutional mission (Baron, 2010; Chambliss & Takacs, 2014).

One way that female students may engage in campus life is by joining a sorority;

these organizations play a prominent and influential role on many college and university campuses (Borsari, Hustad, & Capone, 2009; Lien, 2002). According to Pike (2000), sororities are powerful socializing agents, while Chambliss & Takacs (2014) noted that these organizations are often successful in fully engaging their members. The influence sororities exert, Pike (2000) indicated, may be positive or negative, depending on the culture of the institution and the sororities themselves.

It has been questioned whether or not sorority values are in line with the values of higher education, and if these organizations serve to enhance the overall educational mission (Biddix et al., 2014; Pike, 2000). Despite these concerns, however, Biddix et al. (2014) noted that sororities persist, and membership has not decreased. Given the increasing prevalence of mental health issues among students, and the higher prevalence of these issues among women (ADAA, 2007; APA, 2013; Hunt & Eisenberg, 2010), consideration should be given as to how sororities may fit into the discussion of addressing these issues.

This chapter presents information regarding the history and current state of college mental health services as context for understanding the impact of mental health issues on sorority members. The history of sororities and the advising of these organizations will be discussed. Research about the effects of sorority membership will be presented, highlighting a need for further exploration of mental health/psychosocial issues within this population

History of College Mental Health Services

Mental health services on most campuses are the result of the evolution of the traditional role of academic and vocational student advisor; this function was

professionalized through training in counseling psychology, with an emphasis on developmental and academic counseling as opposed to traditional therapy (Barreira & Snider, 2010). More traditional mental health services were available through consultation and partnership with off-campus resources (Barreira & Snider, 2010). Mental health services tended to exist parallel to student health services, each with their own distinct operational models, budgets, and staff, but overlapping client populations (Barreira & Snider, 2010; Kraft, 2011).

The date of establishment of the first college counseling center is unclear, though in the early 1900's students received support from a variety of individuals on campus who may have called themselves counselors, student support personnel, or advisors (Barreira & Snider, 2010). The support provided included assistance with issues that negatively impacted students' academic performance, including educational, vocational, financial, moral, and personality problems (Barreira & Snider, 2010; Kraft, 2011). These early services were often located within the academic affairs office on campus (Barreira & Snider, 2010).

The first documented appearance of a mental health care service was at Princeton's mental health care clinic in 1910, focused on psychiatric care (Barreira & Snider, 2010), established nearly 50 years after the first student health service at Amherst College (Kraft, 2011). One of the motivating factors for the establishment of this service was the concern that well-qualified students were leaving their studies due to emotional issues, a concern that still persists today (Kraft, 2011). Another reason for the growth of such services was the concern that psychological issues could serve to weaken the United States' military capabilities, though the services did extend beyond treating potential

soldiers (Barreira & Snider, 2010).

Over the following two decades, more colleges and universities followed Princeton's lead by incorporating services related to mental health into their own systems of student health care (Barreira & Snider, 2010). Some of the delay in establishing these services was due to the lack of qualified, trained personnel to provide care (Kraft, 2011). These services were based in the Mental Hygiene movement, with focus on the importance of research, public education, development of evidence-based treatments, and providing assistance to the ill and disabled (Barreira & Snider, 2010).

It was not until the mid-1940's, post-World War II, that mental health services became a more common feature on college and university campuses (Barreira & Snider, 2010). A commission on higher education under President Truman had recommended that colleges and universities should not only focus on the intellect, but also on emotional and social adjustment of students (Barreira & Snider, 2010). Campus mental health centers began during this time to put a primary focus on the prevention of potential mental health issues (Barreira & Snider, 2010; Kraft, 2011).

Promoting student mental health became the task of counseling centers, as opposed to psychiatric services or student health centers (Barreira & Snider, 2010). The expansion of mental health services to students experiencing social and emotional stress, in addition to academic problems, marked a turning point in the development of mental health services which were separate and distinct from conventional psychiatry (Barreira & Snider, 2010; Kraft, 2011). During that time, major psychiatric conditions were viewed as reactions, developed in response to social and other external forces (Barreira & Snider, 2010).

In order to assist students in altering the environmental and social factors that were negatively impacting them, mental health providers began to reach out to other parts of the academy for assistance, as it was thought that incorporating personal counseling into pre-existing relationships and interactions was the most efficient and effective way to provide services (Barreira & Snider, 2010; Kraft, 2011). Mental health service providers fulfilled the roles of educators and consultants, in addition to direct treatment providers. These efforts were grounded in the community mental health model, which is still viewed as relevant to the organization and delivery of mental health services on campuses (Barreira & Snider, 2010).

In the 1960's, this model was developed on a national scale (Siggins, 2010), with the following key principles: "community-based services for a defined population, attention to general well-being through education and prevention services, a multi-disciplinary team approach, and community consultation" (Barreira & Snider, 2010, p. 29). College and universities were well-positioned to develop and provide services for their students—they were aware of the educational and developmental tasks and goals of students, as well as the stresses and risk factors that were most likely to be encountered (Barreira & Snider, 2010).

More recently, there has been a focus within higher education to promote and educate the campus community about positive mental health and student wellness (Barreira & Snider, 2010; Kraft, 2010). As noted by Kraft (2010) and Watkins, Hunt, and Eisenberg (2012), college and universities inherently have the ability to develop interdisciplinary teams—a variety of resources are co-located on campuses and share a common educational mission. Early identification of mental health issues and referrals

for intervention are a key within the community mental health model (Barreira & Snider, 2010; Siggins, 2010). Barreira and Snider (2010) note that the more separate campus departments, such as prevention and education, are from treatment activities, the more challenging it is for referrals to services and coordination of care to take place. For campuses that are small and are without the resources for certain types of services, such as psychiatry, Barreira and Snider (2010) state that partnerships can be formed with community based resources using the same community mental health model.

The Current State of Campus Mental Health Services

Colleges and universities are in a unique position to address the mental health needs of their students. Eisenberg et al. (2009) noted that campuses are environments that integrate residential, academic, and social activities, providing many opportunities for assessment and intervention regarding mental health issues. The presence of interconnected resources can have a positive impact on student mental health, during the on-campus years and beyond (Watkins, Hunt, & Eisenberg, 2012).

Structure of Campus Mental Health Services

According to the Anxiety and Depression Association of America (2007), nearly all campuses provide some type of mental health services to their students. College mental health services are increasingly sophisticated, providing continuity of care for students with pre-existing conditions and support for those presenting with emerging mental health issues after matriculation (Kay & Schwartz, 2010). While the specific services offered within campus mental health centers can vary based on institutional type and size, mission, resources, student demographics, and geographic location, typical services tend to include assessment and triage, individual and group therapy, crisis

intervention, and psychoeducational prevention programming (Douce & Keeling, 2014). Campus mental health providers are also called upon to consult with faculty, staff, families and peers (Douce & Keeling, 2014; Reetz, Barr, & Krylowicz, 2013). Gallagher (2013), in a survey of college counseling center staff, found that 60% of centers increased the time spent providing consultation from the previous year.

A survey conducted for the Association for University and College Counseling Center Directors (AUCCCD) by Reetz, Barr, and Krylowicz (2013), determined that the average ratio of clinical counseling staff to students was 1: 1772. Similarly, Gallagher (2013) found that this ratio was 1: 1604. In both studies, the staff to student ratio was inverse to student body size (Gallagher, 2013; Reetz, Barr, & Krylowicz, 2013). The AUCCCD survey further indicated that of the 380 campuses surveyed, approximately 64% of centers offer some type of psychiatric services (Reetz, Barr, & Krylowicz, 2013), and 25% are co-located with campus health centers (Reetz, Barr, & Krylowicz, 2013).

In a study focusing on resource allocation for mental health services on 10 campuses, Hunt, Watkins, & Eisenberg (2012) found that campus counseling centers seem to be in unsustainable positions, as colleges and universities struggle with how to meet student mental health needs within a challenging fiscal environment. Becker, Plasencia, Kipela, Briggs, & Stewart (2014) indicated that a variety of factors impact the ability to meet mental health needs, including the costs, the number of available trained providers, availability of alternate treatment options, and geographic factors. A range of interventions, and the diversification of efforts to address mental health needs, across the campus community is needed (Becker et al., 2014).

The current, dominant delivery mode of treating mental health issues--face-to-face

psychotherapy, by trained mental health practitioners--does not appear sufficient to meet the continued needs of students with mental illness (Becker et al., 2014; Gallagher, 2013; Kay & Schwartz, 2010; Reetz, Barr, & Krylowicz, 2013). Research conducted by Douce and Keeling (2014), as well as Watkins, Hunt, and Eisenberg (2012) indicates that more staff resources and space will be needed in order to attempt to meet the demand related to the mental health needs of students. According to Watkins, Hunt, and Eisenberg (2012), if more space and resources, including additional staff, are not available, colleges may need to redefine the counseling center role, with more emphasis on utilizing community based resources, when and if available, to meet student needs.

Utilization of Campus Mental Health Services

Of the students who self-report mental health issues, a small number are reported to have sought counseling services on campus (Belch, 2011; Davidson & Locke, 2010; Gallagher, 2013; Reetz, Barr, & Krylowicz, 2013), yet mental health centers report often being overwhelmed with demand for services (Belch, 2011; Chung et al., 2011; Gallagher, 2013; Hunt & Eisenberg, 2010; Reetz, Barr, & Krylowicz, 2013). Yorganson, Linville, and Zitzman (2008) estimated that 30% of students who needed or qualified for mental health services on campus use these services. Gallagher (2013), in his survey of campus counseling center directors and staff, discovered that, of the 3.3 million students eligible for campus counseling services across 275 campuses, only 11% sought counseling. Gallagher (2013) further determined that 35% of surveyed counseling centers had to maintain a waiting list for services during certain times of the academic year.

Chung et al. (2011) found that of those students who committed suicide, only 20% were current or former counseling center clients, as did Gallagher (2013) in a survey of counseling center directors. Capriccioso (2006), however, estimated that 90% of students who completed suicide had a diagnosable mental illness. According to Shuchman (2007), failure to identify issues, non-adherence to treatment, lack of treatment resources and poor coordination amongst those providing assistance and services to students may increase the risk of suicidal episodes on campus.

Significant barriers to treatment engagement exist, including time, lack of knowledge regarding mental health issues and available resources, stigma (real or perceived), embarrassment, lack of access to treatment (real or perceived) and not believing that treatment will be helpful (Eisenberg et al., 2009; Herman et al., 2011; Higginbotham, 2013). Research also has found that students are unlikely to reach out to campus professionals when they encounter a peer who is struggling with mental health issues (Dobmeier et al., 2011; Eisenberg & Lipson, 2014).

Collaboration with Other Departments

In addition to direct clinical work with students, campus counseling centers are often called upon for increased involvement in campus consultation and outreach efforts (Gallagher, 2013; Reetz, Barr, & Krylowicz, 2013; Siggins, 2010). Becker et al. (2014) indicated that increased collaboration with other disciplines may be a way to address campus-wide mental health needs. Siggins (2010) indicated that in order for such collaboration to be successful, collegial relationships between faculty and staff must be established.

In the annual survey by the American College Counseling Association (ACCA),

Gallagher (2013) found that campus mental health directors reported a 60% increase in the amount of time spent in training and consulting with faculty and staff, as compared to the previous year. ACCA 2013 survey results also indicate that over 50% of these directors also participated in multidisciplinary teams focused on the early identification of students in distress (Gallagher, 2013).

According to Kranke, Floersch, Townsend, and Munson (2010) there may be a disconnect between campus mental health centers and other supportive campus services, particularly regarding student accommodations for psychiatric disabilities. Kranke et al. (2010) noted that faculty and staff may be unaware of the accommodations necessary for students with mental health issues to be academically successful; there may not be specific, required trainings regarding disabilities and accommodations. A study by the National Alliance of Mental Illness (Gruttadaro & Crudo, 2012) found that nearly 40% of the students surveyed, who had mental health issues, were unaware of how to access accommodations, and were often unaware that they were eligible for assistance.

Legal Concerns Related to Student Mental Health

Recent high visibility, tragic incidents have significantly altered how campus communities view those with mental health issues (Belch, 2011) and tend to dominate discussions of student mental health (Douce & Keeling, 2014). Watkins, Hunt, and Eisenberg (2012) indicate that increased media attention regarding emotionally disturbed students, there has been an increase in the level of vigilance towards mental health issues on campus including the development of behavioral intervention and crisis management teams (Douce & Keeling, 2014). Gallagher (2013) found that 58% of

campus counseling center directors reported that they have come under increasing pressure to share concerns about troubled students who might pose a risk to others because of such tragic incidents. Belch (2011) noted a discernable shift from prevention and education to a crisis management model, with increased legal and ethical risks, and significant concerns about liability and privacy laws.

Kraft (2010) reported that significant legal issues exist within these intervention and crisis teams, with regards to mental health records, parent and family communication, involuntary hospitalization and subsequent return or removal from campus, and standards for managing the care of disabled and/or disruptive students. Shuchman (2007) found that confusion appears to exist regarding the role of the Family Educational Rights and Privacy Act (FERPA) and the Health Insurance Portability and Accountability Act of 1996 (HIPAA) in the discussion and management of concerning student behavior. With the rise of behavioral intervention teams being used to address concerning student behavior, team members must have an understanding of FERPA and HIPAA and how their role—within the team and on campus—are impacted by these laws. The use of electronic mental health records, and the confidentiality of these records may also be a legal challenge for campuses (Kraft, 2011).

Focus on Specific Student Groups

Tinto (2004) noted that in providing support to students to enhance college success, specific support programs may need to be designed to address the needs of particular groups of students. Groups that have been previously targeted, per Tinto (2004), include first year students and students from different racial or ethnic groups.
More recently, increased attention has been placed on athletes and their mental health

outcomes. The Healthy Bodies Study (2014) found that, of athletes with mental health issues, only 10% engaged in mental health care, compared to 30% of students who were not athletes.

College Mental Health Issues

It is estimated that mental health disorders, which are persistent and cyclical in nature (ADAA, 2007; APA, 2013; Belch, 2011), affect about 25% of the adult population in the United States and are the leading cause of disability in the United States (Choenarom, Williams, & Hagerty, 2005; NIMH, 2012). The highest prevalence of mental health disorders occurs between the ages of 18-24 (APA, 2013; Belch, 2011; NAMI, 2012); these disorders account for more disability-adjusted life years lost than any other conditions among adolescents and young adults (Michaud et al., 2006; NIMH, 2012). Yorganson, Linville, & Zitzman (2008) noted that a majority of students with mental health issues, some of which do not emerge until they are on campus, are not in treatment.

Anxiety and Depression

Anxiety and depression are the two most common mental health issues in the United States (ADAA, 2007; APA, 2013; NIMH, 2012) and on US college and university campuses (ACHA, 2013; Gallagher, 2013; Eisenberg & Lipson, 2014; Jane-LLopis& Matytsina, 2006; Keyes et al., 2012; Reetz, Barr, & Krylowicz, 2013). Most people have experiences related to worry and sadness—these are common human emotions (ADAA, 2007; APA, 2013). According to the American Psychological Association (APA) (2013) anxiety and depression differ from typical, developmentally appropriate worry, fear, and sadness in that overall functioning and performance is often severely and

negatively impacted.

Hunt and Eisenberg (2010) found that mental health issues, including anxiety and depression, are one of the most significant public health problems among late adolescents and young adults. Research has consistently indicated that 75% of all lifelong mental health issues emerge between the ages of 18-24 (APA, 2013; Eisenberg et al. 2011; NAMI, 2012). It is notable that lifetime rates of anxiety and depression are higher for women than men (APA, 2013; Cranford, Eisenberg, & Serras, 2009; Doornbos et al., 2008; Vohs, 2008). Hunt and Eisenberg (2010) similarly noted that female students are more likely than males to screen positive for anxiety and depression.

Anxiety. The ADAA (2007) and APA (2013) report that anxiety disorders are the most common form of mental illness in the United States. According to the APA (2013), the following are designated as anxiety disorders: Separation Anxiety Disorder, Selective Mutism, Specific Phobia, Social Anxiety Disorder (Social Phobia), Panic Disorder, Panic Attack, Agoraphobia, Generalized Anxiety Disorder, Substance/ Medication-Induced Anxiety Disorder, Anxiety Disorder Due to Another Medical Condition, Other Specified Anxiety Disorder and Unspecified Anxiety Disorder. Doornbos et al. (2011) found that nearly 25% of all American adults experience anxiety, while the NIMH (2012) reports that anxiety affects 18% of US adults. Pigott (2012) estimates that 33% of women will meet diagnostic criterion for an anxiety disorder at some point in their lifetime. Women are estimated to be two times more likely to develop an anxiety disorder than men (APA, 2013; Doornbos et al, 2011; Kornstein & Wojcik, 2012).

The American College Health Association (ACHA) conducts a yearly, multi-site survey of overall college student health, including mental health. The 2013 data from the National College Health Assessment II (ACHA-NCHA II) found, per student self-report, that 57% of students experienced overwhelming anxiety, while 15% were diagnosed with an anxiety disorder by a mental health professional (Reetz, Barr, and Krylowicz, 2013). The Healthy Minds Study (Eisenberg & Lipson, 2014) is another national, multi-site survey specifically studying student mental health and help-seeking behavior also relies on student self-report, but utilizes specific mental health screening measure, including the GAD-7 (Spitzer et al., 2006) to measure the presence of Generalized Anxiety Disorder; results from the 2013-2014 academic year found that 22% of participants met diagnostic criteria for an anxiety disorder. When Healthy Minds Study (Eisenberg & Lipson, 2014) and ACHA-NCHA II (Reetz, Barr, and Krylowicz, 2013) results are compared, it appears that students are more likely to describe themselves as being anxious than they are to meet diagnostic criteria for anxiety and depression. In addition, more students appear to meet diagnostic criteria for anxiety than are diagnosed by mental health providers.

According to the APA (2013) and NIMH (2012), Generalized Anxiety Disorder (GAD) is the most commonly diagnosed anxiety disorder in the United States, with three percent of the adult population in the United States being affected. Pigott (2012) estimated that women are two to three times more likely to have GAD than men. GAD typically has onset during late adolescence and early adulthood, and takes a chronic, persistent course (ADA, 2013; Pigott, 2012). Likewise, the APA (2013) noted that anxiety disorders often develop in childhood and persist if not treated.

Pigott (2012) reported that negative outcomes correlated with the presence of an anxiety disorder include functional impairment, decreased educational and vocational opportunities, and higher rates of morbidity. Pigott (2012) further found that relatively few of those with GAD or other anxiety disorders receive appropriate treatment for their disorder as anxiety is often masked by prominent somatic complaints, such as chest pain, shortness of breath, shaking, sweating, numbness, and headaches, making them difficult to identify.

In a review of literature focused on anxiety and mood disorders, Swinbourne and Touyz (2007) indicated that the presence of anxiety disorders was significantly higher in those with disorders. Similarly, Pigott (2012) estimated that two-thirds of those diagnosed with anxiety disorders will subsequently develop a depressive disorder, particularly major depression. Eisenberg, Hunt, and Speer (2013) found that students who grew up in upper class, wealthy families were at higher risk for anxiety than those who grew up in financially comfortable circumstances.

Depression. Doornbos et al. (2011), estimate that 17% of the adult population in the United States will experience depression during their lifetimes. According to the APA (2013), depressive disorders are characterized by sadness severe or persistent enough to interfere with daily functioning, and are often marked by decreased interest or pleasure in activities. The APA (2013) describes several distinct diagnoses as depressive disorders: Disruptive Mood Dysregulation Disorder, Major Depressive Disorder (including major depressive episode), Persistent Depressive Disorder (dysthymia), Premenstrual Dysphoric Disorder, Substance/Medication-induced Depressive Disorder, Depressive Disorder Due to Another Medical Condition, Other

Specified Depressive Disorder, and Unspecified Depressive Disorder.

The National Institute of Mental Health (2010) reported that depression is the leading cause of disability in the U.S. for those between the ages of 15 and 44. Further, the NIMH (2012) found that 16 million US adults had experienced at least one major depressive episode within the previous year, representing nearly 7% of all US adults. Kornstein and Wojcik (2002) reported that women are at greater risk for depression, with Doornbos et al. (2011) indicating that women may be 70% more likely to develop depression than men.

Findings from the ACHA-NCHA II and the Healthy Minds Study regarding depression in college students were similar to the findings about anxiety. On the ACHA-NCHA II, 34% of students self-reported that they felt so depressed it was difficult to function within the previous 12 months, with 12% being diagnosed with depression by a mental health professional (ACHA, 2013). (ACHA 2013). Results from the Healthy Minds Study (Eisenberg & Lipson, 2014) found that, on the PHQ-9 (Kroenke et al., 2001), a standardized screening assessment for depression, 21% of students screened positive for Major Depressive Disorder. These results indicate that students are more likely to describe themselves as being depressed than they are to actually meet diagnostic criteria for, or be professionally diagnosed with, depression.

According to the APA (2013), Major Depressive Disorder is the most commonly diagnosed depressive disorder, and is characterized by episodes of depression lasting at least two weeks, with distinct changes in affect, cognition, and overall functioning (APA, 2013). While single episodes are possible, it is more likely that episodes recur in the same individual over time, with periods of typical functioning between them (APA,

2013). Herman et al., (2011) determined that psychotherapy and antidepressant medications are effective treatment for approximately 60-80% of those affected by depression, but only about 25% of all those affected get treatment.

Eisenberg, Hunt, and Speer (2013) determined that, in a study of 14,175 college students, students who screened positively for major depression, 40% also screened positive for generalized anxiety. In the same study, results indicated that women had a higher prevalence of major depression than men. According to Kornstein and Wojcik (2012), the presence of a comorbid mental health disorder in someone with depression has been correlated to worse treatment outcomes than for those with only depression.

Kornstein and Wojcik (2012) report that women are more likely to develop alcoholism when depressed. Weitzman (2004) noted that students who have mental health issues, particularly depression, have increased risk for alcohol problems, such as drinking-related harms—including missing class, falling behind in work, alcohol abuse, and unsafe sexual experiences. Weitzman (2004) further reported that such alcohol problems are more significant for females than males.

Individuals with financial difficulty, particularly those living below the poverty level, are more likely to experience mental health issues, particularly depression (Doornbos et al., 2012). Similarly, Eisenberg, Hunt, and Speer (2013) found that financial difficulties among students are correlated with higher risk for mental health issues, especially depression. The authors noted that this risk persists even with campus based access to free or low-cost mental health services (2013).

Mental Health Issues and College Students

Hunt and Eisenberg (2010) noted that more than 65% of US high school graduates

attend college. Improvements in the assessment, diagnosis, and treatment of mental health disorders have led to more students with pre-existing mental health conditions to now be able to pursue higher education (Douce & Keeling, 2014; Kay & Schwartz, 2010; Kitzrow, 2003; Watkins, Hunt, & Eisenberg, 2012). According to Lundquist (2011), the number of students with psychiatric disabilities has begun to surpass the number of students with ADHD and learning disabilities combined. Hunt and Eisenberg (2010) noted that mental health can impact a student's college experience, as it is a foundation for well-being and academic success.

Academic Impact of Mental Health Issues. Douce and Keeling (2014) indicated that mental health issues are learning issues; if students are not ready to learn to due emotional or psychological distress, they are unable to learn. According to Dobmeier et al. (2011), students may experience significant anxiety due to academic demands. Hysenbegasi, Hass, and Rowland (2005) determined that depression and academic performance were interrelated; students indicated that poor school performance was one of the causes of their depression.

Eisenberg, Golberstein, and Hunt (2009) found that the presence of depression is significantly predictive of lower GPA, and a higher probability of dropping out, even after controlling for symptoms of anxiety and eating disorders, prior academic performance, and other covariates. A study by NAMI (Gruttadaro & Crudo, 2010) noted that, due to lower GPA as a result of mental health issues, students were at risk of losing financial aid and/or scholarships. Further, Eisenberg, Golberstein, and Hunt (2009) reported that depression also appears to interact with anxiety; the association between depression and negative academic outcomes is particularly strong among students who also have a

positive screen for an anxiety disorder.

Retention and Mental Health. Research indicates that student retention, persistence, and success can be negatively impacted by mental health issues (Hartley, 2010; Gruttadaro & Crudo, 2012), not only for the individual suffering from the affliction, but also for those around them (Eisenberg, et al., 2009; Gruttadaro & Crudo, 2012). Eisenberg, Golberstein, and Hunt (2009) found that depression was correlated with higher college dropout rates. Similarly, a 2012 study by NAMI (Gruttadaro & Crudo) discovered that mental health issues, particularly depression, had resulted in students leaving school both temporarily and permanently.

Breslau, Lane, Sampson, and Kessler (2008) noted that non-completion of a degree can lead to lifelong impact for economic and social functioning. According to Tinto (2004), the development of support programs for students, including academic, social, and personal supports, can serve to enhance student retention. Yet, of the students responding to the NAMI study (Gruttadaeo & Crudo, 2012), 45% indicated that they had not received any accommodations for their mental illness. The Healthy Minds Network (2015) has found that improving student mental health can increase student retention. This benefits the student, through direct economic benefit to the student, as well as the institution, through higher tuition revenue (Healthy Minds Network, 2015).

Habley and McClanahan (2004) determined that student involvement in campus life was a key component in student retention. Chatriand (2012) similarly reported that social and academic integration of students enhances retention. Kuh, Kinzie, Buckley, Bridges, and Hayek (2006), in a review of literature related to student success, found that participation in co-curricular activities was positively related to student persistence

and retention, yet more than two-fifths of students do not participate in such activities. .

Social Relationships and Mental Health. According to Chickering and Reisser (1993), friendships and student communities are some of the key influences on student development. Erikson (1968) described intimacy versus isolation as a core developmental task for young adults. However, Iarovici (2014) indicated that, for some college students, they are unable to form friendships and connections, leading to feelings of loneliness; such feelings can impact student mental health by causing or exacerbating mental health difficulties. Iarovici (2014) further highlighted the difficulty in differentiating normal developmental struggles from serious mental health issues.

Coyne and Downey (1991) cited that several studies correlated social support with better mental health outcomes. Dobmeier et al. (2011) noted that student involvement in campus activities decreased student alienation. Similarly, Strayhorn (2012) described significant positive correlations between involvement in campus activities and student's sense of belonging. Such involvement can increase a student's sense of belonging, which Iarovici (2014) and Kadison and DiGeronimo (2004) described as a key component in students' sense of well-being and academic engagement.

Kadison and DiGeronimo (2004) reported that students with mental health issues should engage with peers as one way to address their issues, particularly related to isolation and loneliness. However, in a presentation by Gillham and Brunwasser (2012), it was indicated that mental health issues can lead to impairment in coping and problem-solving skills, which are crucial in relating to others and engaging in successful social relationships. In addition, Corrgian (2004) noted that stigma regarding mental health issues can negatively impact opportunities for social engagement.

Sororities and Mental Health

Biddix et al. (2014) surmised that sororities can exert a major influence on the overall culture of higher education as well as the culture of particular campuses. According to Erb (2014), peers and roommates play an important role in socialization and mental health. Given this, sorority membership has significant potential to impact members, including their mental health, both positively and negatively.

Biddix et al. (2014) indicated that little research has been generated directly from sororities, governing councils, or sorority-related professional groups. The NPC is the largest governing organization of sororities in the United States with approximately 300,000 undergraduate sorority members on 658 campuses across the United States (Biddix et al., 2014). Researchers have attempted to gain access to NPC-affiliated organizations, but have had difficulty as research within this population is highly restricted (Taylor, 2010).

History of Sororities

Fraternal organizations have existed on college campuses for more than 225 years (Jelke & Kuh, 2003). Women's sisterhood organizations were in place on campuses by the mid 1850's (Singer & Hughey, 2003). Most of these organizations initially termed themselves as fraternities until 1882, when the use of the term sorority was widely adopted (Singer & Hughey, 2003). The notion of sisterhood was the initial focus of these organizations, with members providing support to each other, as they were often some of the first female enrollees on many campuses (Singer & Hughey, 2003).

As described by Singer and Hughey (2003), "individual and collective growth and development, together with the provision of opportunities for social interaction, have been at the heart of women's fraternal organizations" (p. 59). Women believed that

collective rather than individual action would better assist them in meeting their goals (Baron, 2010). Given the start of sororities as literary societies, academic support has long been a guiding principle (Singer & Hughey, 2003). There has also been a strong emphasis on service and philanthropy, with the establishment of funds for members in need (Singer & Hughey, 2003).

From the beginning, women's fraternal organizations sought relationships with their counterparts on other campuses (Singer & Hughey, 2003). This led to attempts to develop agreements and contracts related to sorority rituals, rites, and socialization processes. The initial agreements between organizations varied widely, but did help to precipitate a degree of standardization for these processes amongst organizations.

Symbolic events, such as rituals, and rites of passage within sororities refer to those that are both formal (ceremonies, ritual) and informal (drinking games, parties) (Reikofski, 2008). Rituals may be seen as culturally transmitted symbolic codes, which are repeated, structured, authoritatively designated and intrinsically valued (Smith, 2009). These rituals may be highly meaningful to members, but have little value to non-members (Schein, 2010).

The socialization of sorority members is the process of cultural learning (Kuh & Arnold, 1993). Generally, there are four distinct steps in the process of socializing members of Greek-life organizations: recruitment (rush), new member education (pledging), initiation (finishing) and post-initiation (ongoing) (Rolnik, Engeln-Maddox, & Miller, 2010). Many of these steps are intentionally designed and specifically orchestrated experiences (Kuh & Arnold, 1993).

Recruitment is the process by which the sorority identifies those who might be

considered for membership (Kuh & Arnold, 1993). Recruitment processes for NPC member organizations are standardized, with clear procedural mandates and rules providing structure to the process (NPC, nd). Research on recruitment indicates that this process can negatively affect self-esteem, for potential new members as well as current membership, as the process is often stressful, time-consuming, and may result in rejection of some form (Chapman, Hirt, & Spruill, 2008).

After receiving an invitation to join the organization, the new member (formerly referred to as a pledge) begins the education process, in which they learn about the history, rites, and rituals of the organization (Kuh & Arnold, 1993). During this process, new members have frequent contact with each other, are susceptible to group influence, and develop a strong loyalty to each other and to the organization (Kuh & Arnold, 1993). This process is often a rigorous, weeks-long experience, during which time the sorority provides guidelines for new members as to how to spend their time and interact with others (Kuh & Arnold, 1993). Completion of this process ensures the complete socialization of new members into the organization (Kuh & Arnold, 1993).

By the end of the 19th century, it was established that an oversight body, which had the authority to establish uniform processes and procedures, was needed (Singer & Hughey, 2003). The NPC, initially known as the Inter-Sorority Conference, was established in 1902 (Barber, Espino, & Bureau, 2014; Singer & Hughey, 2003). The NPC remains the largest governing body of sororities, with 26 member organizations (Biddix et al., 2014). NPC sororities have traditionally and historically sponsored primarily Caucasian membership, but have shown increasing diversity over time; when member organizations were founded, it was often only Caucasian women who

demonstrated the ability to attend institutions of higher education.

There was significant growth and expansion of sororities between the time of their founding and World War II (Barber, Espino, & Bureau, 2014; Singer & Hughey, 2003). During the 1940's and 1950's, higher education became more inclusive and democratic, and an increase in socioeconomic diversity was seen on campuses and within sororities (Singer & Hughey, 2003). Racial, ethnic, and social barriers began to change during this time (Singer & Hughey, 2003).

Participation in sororities remained robust until the late 1960's, when enrollment began to decrease (Singer & Hughey, 2003). Part of the decline in membership is attributed to fallout from the Vietnam War and the rise of the women's movement (Singer & Hughey, 2003). Since the 1980's, however, sororities have experienced a resurgence, and membership continues to grow (Singer & Hughey, 2003).

Sorority Advising

Sororities are complex systems with multiple and varied stakeholders—including members, chapters, national offices, campus professionals, volunteers, the NPC, the Association of Fraternity and Sorority Advisors (AFA). According Kuh and Arnold (1993), sororities are products not only of their own cultures, but of the societal and institutional values and attitudes that allow them to continue to exist in their current forms. It is notable that colleges and universities may express concern with or displeasure towards these organizations, but often continue to tolerate this subculture on their campuses. Reikofski (2008) noted there may be distinct differences between Greek organizations' espoused values and the actual behavior of members', which present challenges for many on campus, particularly student affairs administrators.

Campus-Based Advisors. Despite the substantial issues—as well as the significant benefits—associated with sororities, the advisement and management of these groups, according to Reikofski (2008), is frequently left to entry or mid-level student affairs staff or graduate students who may not have had any personal involvement in sorority membership. Reikofski (2008) questioned whether these advising professionals possess the breadth and depth of skills and knowledge that would provide them with the tools necessary to manage day-to-day issues while facilitating positive culture change. In a 2009 membership survey, the Association of Fraternity Advisors found that the average career level of advisors was 6.9 years, with an average salary of $40, 926. About half of advisors reported that the person on their campus with the primary responsibility for advising was a current grad student or entry level professional, and nearly 80% reported their operating budget to administer the entire Greek life system was $14,999 or less (Reikofski, 2008).

Riordan (2003) describes campus advisors for sororities as members of professional student affairs staff, who are tasked with numerous roles and responsibilities, and who must know and support the mission of their host institutions. This professional must be an “educator, counselor, mentor, role model, programmer, leader, communicator, ambassador, administrator, supervisor, accountant, and manager” (Riordan, 2003, p. 215). The Association of Fraternity and Sorority Advisors (AFA) has outlined core similar core competencies that advisors should have, and roles they should play (AFA, 2010).

Specific skills campus advisors should possess were outlined by Riordan (2003)—a strong understanding of student development and student personnel work; the ability to

learn about and utilize campus resources, while building partnerships and relationships with campus stakeholders; technical skills, such as record keeping, policy implementation, assessment, budget management, and programming; and conflict resolution, supervision skills, and professional ethics—often referred to as human skills. Riordan (2003) noted that it is important that relationships are built between the campus advisor and internal as well as external constituencies. Riordan (2003) further indicated that conceptual skills, such as goal setting, strategic planning, and applying educational theory, are needed.

According to Reuter (2013), the primary objective of sorority advisors is to manage and prevent risk, spending a disproportionate amount of time addressing the debilitating issues that plague the system. Riordan (2003) noted that advisors tend to be more reactive to situations; they may lack the time and skills necessary to be more proactive in addressing issues. For example, according to Reuter (2013), the amount of time that campus professionals spend, for just one incident of alleged hazing in an organization, can total upwards of 100 hours—including direct staff, mid-level staff, and senior administrators. Reuter (2013) indicated that, given that such a scenario might occur multiple times during a school year, the focus on risk management becomes easier to understand.

Riordan (2003) indicated that campus advisors must have knowledge of current student affairs issues, as well as an understanding of tort and other laws affecting sororities. Hall (2009) further notes changes in the way colleges and universities bear legal responsibility for their students, from in loco parentis to the emergence of tort

liability, defined as a civil wrong, for which courts will allow a damage remedy. Hall (2009) indicated that colleges and universities should establish policies and procedures

> that adjudicate student behaviors through the lens of duty. Whether through implementing policies to curb binge drinking, maintaining university facilities, providing adequate campus security, or monitoring campus activities, colleges and universities must be able to provide reasonable care for students. (Hall, 2009, p. 32)

According to Reikofski (2008), issues of liability and litigation provide rationalization for the need to change the culture of Greek life organizations, particularly as related to alcohol abuse and hazing. Reikofski (2008) elucidated that, even if litigation occurs but does not result in large monetary settlements, other costs are incurred; organizational and institutional reputation could be significantly damaged.

Effects of Sorority Membership

The value of sororities on campuses has perpetually been under scrutiny (Biddix et al., 2014; Pike, 2000), with debate as to whether these organizations are valuable or beneficial, and some calls to abolish the system all together (Kuh, Pascarella, & Wechsler, 1996; Pike, 2000). According to Barber, Espino, and Bureau (2014), criticisms of sororities, both past and present, include the notion that these organizations are elitist and exclusionary, and that barriers to membership, including social class, gender expression, and sexual orientation still persist. Barber, Espino, and Bureau (2014) indicated that while restrictions based on race and religion have been removed, though current practice may, at times, differ from established policy. According to Hevel and Bureau (2014), since their inception, efforts to ban sororities have been predicated on the fact that they were incongruent with an educational community. Despite such scrutiny, however, membership in sororities has not decreased, but has continued to increase annually (Biddix et al.; Singer & Hughey,

2003; Swigert, 2005), and, as Barber, Espino, and Bureau (2014) noted, the majority of American colleges and universities play host to sororities on their campuses.

In 1996, Kuh, Pascarella, and Wechsler wrote that research did not support the espoused benefits of sororities—including improved academic performance, exposure to diversity, student support and engagement. According to a review of sorority research conducted by Biddix et al. (2014), there was little data available in 1996 to refute Kuh, Pascarella, and Wechsler's assertions. Biddix et al. (2014) surmised that, while research regarding the overall impact of sorority involvement has increased, much of the research available between 1996 and 2011 focused primarily on the detrimental effects of membership. The present review of the literature about sororities provides an overview of some of the research focused on the effects of sorority membership, both positive and negative.

Academic Impact. According to Astin (1984), if members of sororities were increasingly engaged in education and learning, greater learning outcomes could and should result from their high level of involvement. The results of research in this area (Jelke & Kuh, 2003; Pike, 2000) seem to bear out this contention, as there appears to be little evidence that challenges the notion that sorority membership is correlated with positive academic outcomes. Lien (2002) found that sorority membership promoted involvement in campus life, which was positively correlated with cognitive development. According to Kuh, Kinzie, Buckley, Bridges and Hayek (2006), sorority members were generally more engaged than other students in educationally effective practices, including the amount of effort put forth in and out of classroom, perceptions of the campus environment, and self-reported gains in personal growth and educational areas.

Pike's (2000) research indicated that many sororities stress academic success in their members, and membership is associated with higher gains in overall cognitive abilities. Similarly, Jelke and Kuh's (2003) research results determined that members of sororities, in many cases, fare better than other students in terms of their level of engagement in educationally effective practices. Bureau, Ryan, Ahren, Shoup, and Torres (2011) noted that high performing sororities express high academic standards. These standards start with college and university administration, and are shared and perpetuated by student leaders within the sorority community (Bureau et al., 2011). According the review of sorority research by Biddix et al. (2014), these high expectations are often accompanied by minimum GPA standards for joining a sorority, as well as minimum GPA levels for continued membership.

Engagement. Pascarella and Terenzini (2005) found that sorority membership can assist in development of community orientation, and civic engagement. Lein (2002) identified similar findings regarding opportunities for sorority members to develop interpersonal skills, particularly through leadership positions. Likewise, Chatriand (2012) indicated that sororities can assist in facilitating the student's social integration in the college/university environment, with members being likely to participate in other campus based extracurricular activities—often in leadership positions—than non-affiliated students.

According to Jelke and Kuh (2003), this integration includes involvement in service projects benefitting the community, through philanthropy as well as direct, hands-on service projects. This focus on philanthropy and service, established during recruitment

and new member development, is infused through all aspects and levels of one's membership (Biddix et al., 2014, Jelke & Kuh, 2003). Biddix et al. (2014) report that sorority members, along with their male counterparts in fraternities, form the largest network of volunteers in the United States, volunteering approximately 10 million hours of community service annually.

Reikofski (2008) noted that sororities and their alumnae demonstrate significant political impact on colleges and universities. They are often more loyal to their institutions, have higher rates of institutional donations, and may be involved in governing boards and trustee bodies (Jelke & Kuh, 2003; Reikofski, 2008). Kuh (2006) indicated that alumnae often indicated predominantly fond memories of their sorority and think it played an important part in their development and subsequent success.

Retention and Persistence. Pike (2000) found that strong reciprocal relationships between in- and out-of-class experiences serve to enhance student persistence, retention, and success. Likewise, several studies have correlated sorority membership with persistence, with membership increasing the likelihood of the graduating successfully from college (Barnhardt, 2014; Baron, 2010; Chatriand, 2012; Jelke & Kuh, 2003; Kuh, et al., 2006). In an NPC generated study (Biddix, 2014) documented similar results—sorority members were more likely to persist from freshman to sophomore year than non-members, and were more likely to graduate not only within six years, but within four.

Social integration within sororities has also been positively correlated with persistence (Chambliss & Takacs, 2014; Long, 2012). Singer and Hughey (2003) report that sororities help members in "coping with the complications, demands, and

expectations" (p. 65) of college life, which may partially explain member persistence towards degree attainment. In addition, Chambliss and Takacs (2014) found that the social connection and sense of belonging provided to members not only positively impacts retention, but overall learning, success, and happiness with the college experience.

Social/Relationships. Astin (1993) indicated that students often seek a place to belong on campus—sororities offer established groups that can meet that need. According to Pike (2000), sororities are powerful socializing agents; whether that socialization is positive or negative may depend on the institutional culture within which the sorority system operates. Baron (2010) suggested that formal group involvement appears to enhance the development of one's social identity and feelings of belonging.

There appears to be limited research regarding a sense of belonging in sororities, though Long (2012) found that a high sense of belonging did result from sorority membership. Long further indicated that a main sororal ideal—friendship—is enhanced by sense of belonging. Pascarella and Terenzini (2005) additionally determine that sorority membership enhances interpersonal skills; these skills can contribute to overall sense of belonging.

According to Krueger (2013), shared habits and ideals within a sorority not only mark membership, but serve to foster cohesion and belonging. Krueger (2013) further indicated that the use of Greek letters on clothing, jewelry, signs, etc., serve as an outward symbol of belonging. Additionally, these letters, per Krueger (2013), convey what the organization is, and what it—and, by extension, the individual wearing the letters—believes, practices, and values.

According to Baron (2010), strong group identification can result in high confidence in the group, and while this can be a positive aspect of sorority membership, Perkins, Zimmerman, and Janosik (2011), indicated that sorority members can be exposed to the more negative aspects of group culture. Likewise, Baron (2010) found that individual members may view themselves in terms of the group, rather than as an individual; they may view the organization in a more positive light than is warranted, and may have difficulty acknowledging issues within the group. Reikofski (2008) noted that, even after initiation, members have the potential for group think that drives the collective behavior of the group.

Drout and Corsoro (2003) determined that members of sororities may have a higher level of social orientation and rely more on their peers and those relationships than non-Greeks. While this social orientation can be positive, Corrigan and Matthews (2003) reported that embarrassment and shame can be problems within cohesive social groups. According to Baron (2010), conflict between one's dominant social identity and group norms may arise when there is an aspect of one's identity that is stigmatized within the group.

Psychosocial. Sororities play prominent roles on many campuses, and Lein (2002) indicated that these organizations can influence members' psychosocial development. As Biddix et al. (2014) found, however, it can be difficult to isolate the psychosocial effects of sorority membership; students come to campus and to sororities with their own personal histories and experiences, while also experiencing, and perhaps struggling with, typical developmental processes. In addition, Biddix et al. (2014) reported that those studies which have focused on psychosocial issues tend to be

small, single-site studies, making generalization difficult.

In their review of sorority related research conducted between 1996 and 2013, Biddix et al. (2014) discovered that alcohol-related research is the most prevalent area of empirical study regarding sorority involvement, with little variance amongst the studies. Excessive alcohol use is shown to be a significant issue for sororities and their members (Biddix et al., 2014; Pike, 2000; Sher, Barthlow, & Nanda, 2001; Vohs, 2008). According to Biddix et al. (2014), regardless of the study, sorority members drank in greater quantities and more frequently than non-members, and college students, even if not members themselves, drank alcohol and binged more in fraternity and sorority houses than in any other locations. Members living in chapter houses were more frequently classified as heavy drinkers than members living elsewhere (Fairlie, DeJong, Stevenson, Lavigne, & Wood, 2010).

Pigott (2012) reported that binge drinking is reported to be the primary substance abuse problem seen in college students. Biddix et al. (2014) indicated that sorority membership was associated with higher prevalence of such behavior. Likewise, Chatriand (2012) found that sorority membership itself increased the likelihood that a student would binge drink, with members also having more negative alcohol-related consequences than other students (Fairlie et al., 2010). According to Pigott (2012) and Ragsdale et al. (2012), these consequences include unsafe sex, violent behavior, sexual assault, and poor academic outcomes.

While the NPC describes sororities as not being “a place that puts your looks and wardrobe ahead of your values and personality” (NPC, nd), Biddix et al. (2012) found that body image issues and subsequent disordered eating behaviors can, and do, exist

for members of sororities. The authors noted that sororities may have distinct views of what it means to be a woman, with competition amongst each other to be perfect (2012). Further, the authors report that definitions of femininity often focus on external appearances, leading to potential problems with disordered eating.

Research in this area, much like the work done in the area of alcohol use, shows little variation—sorority members are shown to be at increased risk for disordered eating, regardless of specific study methodology (Basso, Foran, & Bookwala, 2007; Becker, et al., 2008; Becker, Smith, & Ciao, 2005). Nicopolis (2008) indicated that sorority members may have greater fears of being overweight, body size distortion, high levels of body dissatisfaction, and the pressure to conform to a particular standard of beauty than non-members; body dissatisfaction can lead to unhealthy weight control management strategies and disordered eating behaviors. Schwartz (2012) correlated some of these behaviors to the culture of college drinking—women may engage in starvation to offset calories from alcohol, or vomiting as a way to “undo” the calories from drinking.

According to Schwartz (2012), norms within the sorority system are created, exaggerated and modeled by peers—the thin ideal. Schwartz (2012) indicated that these norms begin to be instilled at recruitment—many potential new members report feeling judged by their physical appearance rather than their personality, character, or accomplishments, and these norms may continue with membership. In fact, Nicopolis (2008) determined that groups of sorority members living together are the students at the highest risk for developing eating disorders.

Based on current research, Biddix et al. (2014) noted the difficulty in trying to

holistically evaluate the impact of sororities on member mental health. While research (Kaye et al., 2004; Vohs, 2008) indicates that anxiety and depression are co-morbid factors for both alcohol abuse and disordered eating, anxiety and depression are often not specifically addressed within research focused on sorority members. According to Biddix et al. (2014), when there has been research specifically focused on depression and sorority membership, it has often focused on the recruitment process and how that affects potential new members and their self-esteem; it has been determined that a drop-in self-esteem occurs for potential new members, as well as current members.

In 2013, the NPC participated in a White House summit focused on student mental health (Neiderpruem, 2013). Subsequently, the NPC partnered with the National Alliance on Mental Illness (NAMI), providing an online toolkit for member organizations to utilize, focused on general information about student mental health and support (NPC, 2013). In the press release detailing this partnership, the NPC cited data from a NAMI study (NAMI, 2012) as indicating the need for attention in this area. However, the NAMI study (2012) cited included only 765 participants, and did not provide demographic information indicating whether or not they were sorority members. Despite the NPC focus on mental health, no data was available regarding the use and impact of the NAMI tool kit. Further, only nine of 26 NPC member organizations make any mention of student mental health on their websites.

In September 2014, Alpha Chi Omega announced a partnership with the JED Foundation, a non-profit organization focused on addressing the mental health needs of students and suicide prevention (Alpha Chi Omega, 2014). The press release accompanying the announcement indicated that the partnership was centered on the

promotion of ULifeline, “an anonymous, confidential online resource center, allowing students to find information about a variety of mental health topics any time of day.” (Alpha Chi Omega, 2014) This writer was unable to access information pertaining to how this intervention would be assessed, or what the mental health needs of Alpha Chi Omega’s membership were at the time of this partnership.

When national surveys of student mental health do include demographic information about sorority membership, such as on the ACHA-NCHA II (2013) and Heathy Minds Study (Eisenberg & Lipson, 2014), specific information regarding the type of sorority or national governing council is often not included. The lack of such information, as well as the absence of specific focus on sorority member experiences with their membership, including reasons for joining and feelings of support within the group, make it difficult to draw conclusions from these studies that can be applied and generalized to overall sorority membership.

Despite increased discussion of sorority member mental health, there does not appear to be any baseline information regarding the prevalence and severity of mental health issues within this population. Data is needed order to determine whether interventions are successful, and to assess whether resources have been well allocated. Simply offering a website or online tool kit, while a step in the right direction, seems inadequate to address this important issue, given the serious and debilitating effects that mental health issues can have.

Summary

This chapter provided information about college student mental health and sorority membership. Student mental health issues can have significant impacts on academic

performance, retention, and social involvement. The current structure of campus based mental health services does not appear adequate to meet student needs.

There is increasing scholarly research on sororities, particularly the effects of sorority membership. However, the prevalence and severity of anxiety and depression amongst sorority members does not appear to be addressed within the present literature. As such, the present research sought to address this gap.

III. METHODOLOGY

Introduction

This study sought to fill the gap in the literature regarding sorority member experiences with anxiety and depression. A correlational, quantitative research design to explore relationships between specific student characteristics and the presence of depression and anxiety was utilized. This chapter includes descriptions of the research design, sampling method, instrumentation, data collection method, data analysis, and possible limitations and delimitations of the study.

The methodology utilized in this study was a departure from that described in the initial study proposal. The researcher had proposed to study the presence of anxiety and depression within a specific sorority member population, by surveying the entire undergraduate membership, via web-based survey, of one national sorority. The NPC is the largest sorority advocacy organization, representing 26 national sororities (NPC, 2013). Given the size of the NPC and it's member organizations, as well as the NPC's focus on mental health on a national level—participating in 2013 in a White House Mental Health Conference (Niederpruem, 2013)—the researcher sought to partner with an NPC organization for the study. The goal of surveying members, across the country, of a single sorority was to be able to have a study population that was representative of overall NPC sorority membership.

The researcher requested and obtained endorsement of the study from the NPC governing board (Appendix A). The researcher had adapted, with permission (Appendix B), the survey tool utilized in the Healthy Minds Study (HMS), based at the University of Michigan, (Eisenberg et al., 2005) for use in the study. While other studies and surveys

pertaining to student mental health exist, including the American College Health Association's National College Health Assessment, the researcher chose to utilize and adapt the HMS survey tool due to its use of well-known and well-validated mental health screening measures.

All 26 NPC member organizations (Appendix D) were informed of the study endorsement by NPC staff, and were also contacted via email by the researcher with the opportunity to participate in the study. None of the contacted organizations chose to participate in the study. Given the inability to obtain direct access to sorority members for the purposes of the research, permission to access and utilize data from the HMS for the 2013-2014 academic year was requested and obtained (Appendix C). With this data, the researcher specifically analyzed demographic information and results of anxiety and depression measures for those female undergraduate students who identified as living in a sorority house.

Purpose

The purpose of this study was to explore the prevalence and severity of anxiety and depression in a sorority member population, as a way to address the gap in the literature regarding mental health and sorority members. Data about the presence of anxiety and depression can inform how students are assessed and how interventions and services are developed and delivered (Eisenberg, Hunt, & Speer, 2013), and can assist in improving overall student well-being. The presence of anxiety and depression has been positively correlated with the development and presence of alcohol abuse and eating disorders (Iaorvici, 2014), which appear to be the most researched mental health topics related to sorority members (Biddix et al., 2014). Information about the

prevalence and severity of anxiety and depression amongst sorority members, as well as information about student characteristics that may be associated with the presence of these disorders, may help inform educational leaders, individual chapters and members, campuses and governing organizations in determining how to best assist their members with these issues while managing risks and resources.

Research Questions

This study explores sorority members' self-reported symptoms of anxiety and depression, as reported in The Health Minds Study (Eisenberg & Lipson, 2014), a nationally administered mental health survey. The following questions were used to guide the study:

1. What is the presence and severity of symptoms of anxiety of women who identify as living in a sorority house?

2. What is the presence and severity of symptoms of depression of women who identify as living in a sorority house?

3. What is the relationship between age, grade point average, financial status, employment status, year in school, and the presence of anxiety/anxiety symptoms?

4. What is the relationship between age, grade point average, financial status, employment status, year in school, and the presence of depression/depressive symptoms?

5. Is there a significant difference between the self-reported symptoms of anxiety and depression in women, 18-22, who reside in sorority housing compared to those who live in non-sorority housing?

Research Design

This study employed a correlational, quantitative design utilizing ex-post facto data from the HMS. Quantitative research is a "means for testing objective theories by examining the relationship among variables. These variables can be measured...so that

numbered data can be analyzed using statistical procedures" (Creswell, 2009, p. 233). Quantitative research is best utilized when the intent of the research is to generalize the sample to a population (Creswell, 2009). It is non-experimental in nature as there is no treatment being introduced. A self-administered, web-based survey was used to describe the phenomenon being studied, and the resulting data formed the database used for the present study. Correlational design is beneficial when examining relationships between two or more variables and is best used to determine the strength of those relationships (Huck, 2012).

This design allowed for the use of data from the HMS, an existing, multi-site national study of student mental health. The HMS was launched nationally in 2007, and, to date, has been administered at over 100 college and university campuses across the U.S., with over 100,000 survey respondents (Healthy Minds Network, 2015). The purpose of the HMS is to provide participating colleges and universities with an overall picture of student mental health and related issues, from the student perspective (Eisenberg & Lispon, 2014). In general, these institutions then utilize the data to: “identify needs and priorities; benchmark against peer institutions; evaluate programs and policies; plan for services and programs; and advocate for resources” (Eisenberg & Lipson, 2014, pg. 1).

HMS data has been used by participating institutions and researchers to explore overall trends in college student mental health, help seeking, stigma, and correlates of student mental health (Eisenberg et al., 2009; Eisenberg et al., 2005; Eisenberg & Lipson, 2014; Hunt & Eisenberg, 2010). This information has been used to help inform the development of programs and allocation of resources (Eisenberg et al., 2009; Eisenberg et al., 2005; Eisenberg & Lipson, 2014; Hunt & Eisenberg, 2010). To date, it

does not appear that HMS data has been utilized to specifically analyze the experiences of sorority members with anxiety and depression. The present study used HMS data to determine the prevalence and severity of symptoms of depression and anxiety according to student self-report. Relationships may exist age, grade point average, financial status, and year in school and these self-reported symptoms of anxiety and depression. A goal of this research was to investigate the presence and significance of such relationships.

Sampling

Colleges and universities are required to enroll in the HMS, and pay a fee for participation. Institutions chose to participate in the HMS to obtain data about mental health and related issues, from the student perspective. For those institutions that do participate, a random sample of 4,000 students is drawn from the student body (Eisenberg & Lipson, 2014). For those participating institutions with less than 4,000 students, the entire population is surveyed (Eisenberg & Lipson, 2014). The expected response rate each year is approximately 25% (D. Eisenberg, personal communication, December 13, 2013). For the purposes of the present research, only data specific to women, ages 18-22, and who identified as residing in a sorority house were utilized.

Instrumentation

Surveys can provide information about the study subjects, with the information coming directly from the subject themselves (Fink, 2006). Information obtained on surveys can be used "to describe, compare, or explain knowledge, attitudes, and behavior" (Fink, 2006, p. 1). They are a useful research technique because of cost-effectiveness, ease of analysis, familiarity to most people, being less obtrusive than

face-to-face surveys (Huck, 2012). When gathering information on sensitive or personal topics, such as mental health, surveys may be utilized. The researcher had sought, in the original research proposal, to conduct survey research for these reasons as well as ethical ones. The researcher is a licensed mental health professional, and it would have been difficult to conduct in-person interviews about mental health issues without being able to intervene or provide treatment.

The present study used ex-post facto data, collected as a part of the HMS during the 2013-2014 academic year (Eisenberg & Lipson, 2014). The HMS was administered as a web-based survey (Eisenberg & Lipson, 2014). While the HMS asks up to 200 questions, specific information about demographic student characteristics and results from the PHQ-9 (Kroenke et al., 2001) and the GAD-7 (Spitzer et al., 2006) were analyzed as a part of this research study.

Questions regarding demographic information, including age, year in school, financial status, employment status and grade point average are included at the start of the Healthy Minds Study survey instrument. The HMS utilizes several specific clinical measures, only two of which were utilized in the present study—Patient Health Questionnaire-9 (PHQ-9) (Kroenke, Spitzer & Williams, 2001) and Generalized Anxiety Disorder Assessment (GAD-7) (Spitzer, Kroenke, Williams, & Löwe, 2006). Both the PHQ-9 and GAD-7 are widely used in a variety of settings and are well-known for measuring symptoms of depression and anxiety, respectively (Eisenberg et al., 2011; Kroenke, Spitzer & Williams, 2001; Spitzer et al., 2006).

The PHQ-9 is the nine item depression scale included in the longer and more comprehensive Patient Health Questionnaire (PHQ), and inquires about symptoms over

the preceding two weeks (Kroenke et al., 2001). The Generalized Anxiety Disorder Assessment (GAD-7) is also a sub-scale of the longer PHQ and inquires about anxiety symptoms in the last two weeks. It includes seven questions related to anxiety symptom criteria, assessing for the presence and severity of symptoms (Spitzer et al., 2006).

Support for the content and construct validity of the instruments is based on the literature (Kroenke et al., 2001; Spitzer et al., 2006). Internal consistency of both PHQ-9 and GAD-7 data are high, with each having a Cronbach's α of 0.89 (Kroenke et al., 2001; Spitzer et al., 2006). Both measures are based on symptoms and diagnostic criteria included in the *Diagnostic and Statistical Manual for Mental Disorders, 4th edition* (APA, 2013). Research on the PHQ-9 supports strong construct validity as measured by the correlation of increasing PHQ-9 severity scores and worsening functioning as measure by SF-20 scales (Kroenke et al., 2001). The inter-correlations between GAD-7 results and results from other measures, such as the PHQ-9, Rosenberg Self Esteem scale, and the Questionnaire on Life Satisfaction, indicate that the GAD-7 also has strong construct validity (Spitzer et al., 2006).

Data Collection

The present research utilized existing data collected as part of the HMS during the 2013-2014 academic year. The researcher requested and received access to the Healthy Minds data via email (Appendix C). According to the HMS 2014 Data Report:

> The HMS is a web-based survey. Students are invited and reminded to participate in the survey via emails, which are timed to avoid, if at all possible, the first two weeks of the term, the last week of the term, and any major holidays. The data collection protocol begins with an email invitation, and non-responders are contacted up to three times by email reminders spaced by 2-4 days each. Reminders are only sent to those who have not yet completed the survey. Each communication

> contains a URL and a unique study ID that students use to gain access to the survey. The HMS questionnaire asks up to 200 questions, with skip logic used to eliminate irrelevant questions. (Eisenberg & Lipson, 2014, p. 2)

Participating colleges and universities then receive site specific data reports from the HMS. These reports include tables and graphs of the findings for key survey measures and an appendix containing descriptive statistics for nearly all survey items.

For the purposes of the present study, the researcher was provided with a de-identified data set of all student responses to the survey collected during the 2013-2014 academic year. The researcher did not receive site specific data reports. HMS did provide an overall data report summary, outlining the demographics of the full data set.

Data Analysis

Data from the HMS, conducted during the 2013-2014 school year, was uploaded into the Standard Package for Statistical Sciences (SPSS) software for statistical analysis. For research questions 1 and 2, frequencies, percentages, means, and standard deviations were determined. Descriptive statistics are used to present quantitative descriptions in a manageable form and are used to describe the basic features of the data in a study by providing summaries about the sample and the measures (Creswell, 2009).

For research questions 3 and 4, a series of correlations were utilized to determine if relationships existed between scores on anxiety and depression screenings and student age, year in school, financial status, and GPA. Where significant relationships were found, effect sizes (r^2) were reported. For research question 5, *t*-tests were conducted to determine if there were significant differences between self-reported symptoms of anxiety and depression based on residence—sorority housing vs. non-sorority housing.

Limitations

Potential limitations to this study are:

- Mental health issues are personal, and there is still significant stigma about mental health on college and university campuses. As such, some students may have chosen not to participate in the HMS, or may not have been honest in their responses and self-reports regarding symptoms of anxiety and depression.

- The researcher was not involved in the development of the Healthy Minds Study survey tool nor in the collection of the data.

- The HMS survey instrument for the 2013-2014 year did not specifically ask respondents about membership in a social sorority. A question was included on the survey that asked respondents to indicate where they lived. A response option for this question was 'fraternity or sorority house'. The data was filtered to specifically include women who responded that they resided in a 'fraternity or sorority house'. Women who are members of a sorority but do not reside in fraternity or sorority housing were not included in this study's data analysis. In addition, it is possible that women who responded yes to living in a 'fraternity or sorority house' may not actually be members of a sorority.

- Knowledge about anxiety and depression could be a limitation of this study. The intended subjects are traditionally-aged college students. They may be unaware of the signs and symptoms of anxiety and/or depression. Established self-report scales that ask specific questions about several types of anxiety and depression symptoms were utilized to better understand more about the students' experiences with these issues.

Delimitations

Potential delimitations to this study are:

- The age of the selected student will be limited to current, full-time, traditional-aged students (18-24), which may exclude some women who are members of sororities.

- The results of this study may be not generalizable to all sorority members, given the small sample size and lack of demographic information specifically indicating sorority membership.

Summary

This chapter described the methodology that was employed to explore the relationships between the presence of anxiety and depression and specific student characteristics. The methodology was supported by a comprehensive literature review. The purpose of the study was to examine the self-reported symptoms of anxiety and depression of women who identified as living in a sorority house, as reported on the Healthy Minds Study survey during the 2013-2014 academic year. Frequencies, percentages, means, and standard deviations were determined for the population sample. The scores of the PHQ-9 (Kroenke et al., 2001) and the GAD-7 (Spitzer et al., 2006) were utilized to assess the presence of depressive and anxiety symptoms, respectively. The presence of statistically significant relationships among student variables such as age, year in school, GPA, financial and employment status were determined through correlational analysis.

Chapters IV and V address the study findings and interpretation of the findings, respectively.

IV. FINDINGS

Introduction

This chapter summarizes the research findings and results of this correlational study. The purpose of this study was to explore the prevalence and severity of anxiety and depression in a sorority member population, as a way to address the gap in the literature regarding mental health and sorority members. The study utilized ex-post facto data collected by the Healthy Minds Study (HMS) during the 2013-2014 academic year.

The purpose of the HMS is to provide "a detailed picture of mental health and related issues in college student populations" (Eisenberg & Lipson, 2014, p. 1), from the student perspective. Colleges and universities must opt in to the HMS, and pay a fee for the data collected and data analysis. The information obtained is then utilized to: "identify needs and priorities; benchmark against peer institutions; evaluate programs and policies; plan for services and programs; and advocate for resources" (Eisenberg & Lipson, pg. 1).

The present study differs from the HMS in exploring and analyzing data specific to sorority members. While the HMS did not contain a specific question regarding sorority membership, a question regarding residence was asked, and contained a response for sorority housing. For those female students who self-identified as living in a sorority house, their self-reported experiences with anxiety and depression were measured and analyzed. Relationships between anxiety, depression, and student characteristics—age, year in school, GPA, and financial status—were explored.

Research Design

The research design of this correlational study differs from that outlined in the original research proposal. The researcher had planned to survey the entire undergraduate population of a national sorority. Permission was obtained to adapt the HMS survey, and endorsement of the study was requested and received from the largest advocacy and support organization for sororities, the NPC. All 26 NPC member organizations were invited to participate in the study; many declined due to a variety of reasons, and several did not respond to the request for participation.

Given that access to a sorority specific population was unattainable, the researcher contacted the HMS and requested access to the most recently obtained data, collected during the 2013-2014 academic year. The specific data utilized in the present study included demographic information about student characteristics, as well as results from the Patient Health Questionnaire-9 (PHQ-9) (Kroenke, Spitzer & Williams, 2001) and Generalized Anxiety Disorder Assessment (GAD-7) (Spitzer, Kroenke, Williams, & Löwe, 2006).

Research Questions

The following questions were used to guide the study:

1. What is the presence and severity of symptoms of anxiety of women who identify as living in a sorority house?
2. What is the presence and severity of symptoms of depression of women who identify as living in a sorority house?
3. What is the relationship between age, grade point average, financial status, employment status, year in school, and the presence of anxiety/anxiety symptoms?
4. What is the relationship between age, grade point average, financial status, employment status, year in school, and the presence of depression/depressive

symptoms?

Overview of Data Collection and Analysis

This study utilized ex-post facto data collected by the HMS during the 2013-2014 academic year. The researcher for the present study was not involved in the development of the HMS survey tool, or the implementation of the HMS study. Based on the size of the participating institution, a random sample of all current students is utilized for the purposes of the HMS. Data from the HMS study were collected via a web-based survey sent directly to students. Students were provided with a unique study ID, tied to their email address, which was used to gain access to the survey.

Data were uploaded into the Standard Package for Statistical Sciences (SPSS) software for statistical analysis. For research questions 1 and 2, frequencies, percentages, means, and standard deviations were determined. For research questions 3 and 4, a series of correlations were utilized to determine if relationships existed between scores on anxiety and depression screenings and student age, year in school, financial status, and GPA. Where significant relationships were found, effect sizes (r^2) were reported.

Demographics of Survey Participants

During the 2013-2014 academic year, 16,342 students responded to the HMS online survey, representing a 29% response rate. Female students comprised 55% of the overall study sample. Students who responded that they resided in a fraternity or sorority house accounted for 1% of total survey respondents.

There were 6,966 women, ages 18-22, who responded to the HMS survey. Seventy two (72) of these women self-identified as residing in a sorority house, and comprised

the sample for the present study. Similar to the overall HMS results for fraternity or sorority housing, 1% of women, ages 18-22, reported living in sorority housing. Table 1 presents the characteristics of the present study sample, women 18-22 (*N* = 72) who identified as residing in a sorority house, as compared to women, ages 18-22 (*N* = 6894), who do not reside in a sorority house. The mean and standard deviation for each characteristic are also noted.

Data regarding respondent age was re-coded for the purposes of the present study, as the age of respondents was limited to ages 18-22, to represent those students of typical college age, who are more likely to be active members of sorority than older students. Nearly 30% of this study sample (*N* = 21) were ages 18 or 19. Twenty-eight respondents (39%) were 20 years old. The remaining 23 respondents (32%) were ages 21 or 22.

Of the 72 women in the present study, there were no freshman. Thirty nine (39) respondents identified themselves as sophomores, 54% of the study sample. Twenty four (24) respondents were juniors, accounting for 33% of the sample.

More than 50% of the study sample reported having the equivalent of an A or A- for their GPA (*N* = 38). Twenty seven respondents reported the equivalent of a B+ or B GPA. Six participants reported a GPA of B- or C+. No respondent in the present study reported a GPA lower than a C+. For the purposes of data analysis, the original HMS data was recoded to better represent the reported GPA for the study sample.

Table 1

Demographic Characteristics and Frequencies of Female College Students, Ages 18-22, Who Responded to the 2013-2014 HMS, Based on Residence--Sorority Housing (*N* = 72) *and Non-Sorority Housing* (*N* = 6894)

	Sorority Housing	M	SD	Non-Sorority Housing	M	SD
Age		2.027	.786		1.98	.88
18-19	21 (29.2%)			2735 (39.7%)		
20	28 (38.9%)			1539 (22.3%)		
21-22	23 (31.9%)			2620 (38%)		
Year in School		2.58	.707		2.40	1.17
Freshman				2041 (29.6%)		
Sophomore	39 (54.2%)			1758 (25.5%)		
Junior	24 (33.3%)			1527 (22.2%)		
Senior	9 (12.5%)			1457 (21.2%)		
Other				105 (1.5%)		
GPA		3.32	1.156		3.37	1.26
B-/C+	6 (8.5%)			676 (10.3%)		
B	12 (16.7%)			1071 (16.2%)		
B+	15 (20.8%)			1373 (20.8%)		
A-	29 (40.3%)			2051 (31.1%)		
A	9 (12.5%)			1421 (21.6%)		
Financial Status		2.29	.615		2.12	.669
Struggle	6 (8.3%)			1182 (17.2%)		
Tight, but doing fine	39 (54.2%)			3690 (53.8%)		
Not a problem	27 (37.5%)			1984 (28.9%)		

Findings by Research Question

Research Question 1: What is the presence and severity of symptoms of anxiety of women who identify as living in a sorority house?

Of the women who identified as living in a sorority house (*N* = 72), 65 completed the GAD-7. Five women (8%) self-reported symptoms that would be classified as severe anxiety, with eight women (12%) reporting symptoms of moderate anxiety. Overall, 20% of the study sample reported that they were experiencing symptoms of anxiety. Table 2 presents the results of the GAD-7 for the study sample, as well as, for reference, all women, ages 18-22, who responded to the 2013-2014 HMS and did not reside in sorority housing.

Table 2

Anxiety Screening (GAD-7) Results of Female College Students, Ages 18-22, Residence-- Sorority Housing (N = 72) and Non-Sorority Housing (N = 6894)

	Sorority Housing	Non-Sorority Housing
Anxiety		
Moderate	8 (12.3%)	952 (13.8%)
Severe	5 (7.7%)	644 (9.7%)
Any	13 (20%)	1596 (24.1%)

Research Question 2: What is the presence and severity of symptoms of depression of women who identify as living in a sorority house?

Of the women who identified as living in a sorority house (*N* = 72), 66 completed the PHQ-9. Table 3 presents the results of the PHQ-9 for the study sample, as well as for reference, all women, ages 18-22, who responded to the 2013-2014 HMS and did not reside in sorority housing. Three women (5%) self-reported symptoms that would be classified as Major Depression, with seven women (11%) reporting symptoms of other depression. Overall, 15% of the study sample reported that they were experiencing symptoms of depression.

Table 3

Depression Screening (PHQ-9) Results of Female College Students, Ages 18-22, Residence-- Sorority Housing (N = 72) and Non-Sorority Housing (N = 6894)

	Sorority Housing	Non-Sorority Housing
Depression		
Major Depression	3 (4.5%)	853 (12.7%)
Other Depression	7 (10.6%)	560 (8.3%)
Any Depression	10 (15.2%)	1413 (21.1%)

Research Question 3: What is the relationship between age, grade point average, financial status, employment status, year in school, and the presence of anxiety/anxiety symptoms for those women who identify as living in a sorority house?

A series of correlations were utilized to determine the relationship between the student characteristics of the present study sample of the presence of anxiety

symptoms, as reported on the GAD-7. Table 4 presents the correlations between student characteristics and symptoms of anxiety for the present study sample as well as for all female HMS respondents, ages 18-22, who did not reside in sorority housing. The results of the correlations indicated the following:

- A significant relationship exists between the presence of anxiety and depression (r = .36, r^2 = .13, p = .004, medium effect size).
- Financial difficulty is positively correlated with depression—conversely, those with no financial worries are less likely to report symptoms of depression.

Research Question 4: What is the relationship between age, grade point average, financial status, employment status, year in school, and the presence of depression/depressive symptoms for those women who identify as living in a sorority house?

A series of correlations were utilized to determine the relationship between the student characteristics of the present study sample of the presence of depressive symptoms, as reported on the PHQ-9. Table 4 presents the correlations between student characteristics and symptoms depression for the present study sample as well as for all female HMS respondents, ages 18-22, who did not reside in sorority housing.

The results of the correlations indicated one major finding. Financial difficulty is correlated with depression (r = .27, r^2 = .07, p = .008, medium effect size). Those respondents who reported financial struggles were more likely to report symptoms of depression. Conversely, those with fewer financial difficulties are less likely to report symptoms of depression.

Table 4

Correlations Between Anxiety, Depression, and Student Characteristics of Female College Students, Ages 18-22, Who Responded to the 2013-2014 HMS, Based on Residence--Sorority Housing (N = 72) and Non-Sorority Housing (N = 6894)

	Anxiety—Any		Depression—Any		Age		Year in School		Financial Status	
	Sorority Housing	Non-Sorority Housing	Sorority Housing	Non-Sorority Housing	Sorority Housing	Non-Sorority Housing	Sorority Housing	Non-Sorority Housing	Sorority Housing	Non-Sorority Housing
Anxiety--any										
Depression--Any	.36**	.45**								
Age	-.12	-.00	.20	.04**						
Year in School	-.10	-.01	.09	.04**	.78**	.78**				
Financial Status	-.05	-.15*	.27*	.16**	.05	.01	-.10	.03**		
GPA	-.16	-.08**	-.07	-.10**	-.05	-.08**	-.12	.08**	.12	.16**

* Correlation is significant at the 0.05 level (2 tailed).

** Correlation is significant at the 0.01 level (2-tailed).

Research Question 5: Is there a significant difference between the self-reported symptoms of anxiety and depression in women, 18-22, who reside in sorority housing compared to those who live in non-sorority housing?

In order to measure any differences in the anxiety and depression reported by women, ages 18-22, who responded to the 2013-2014 HMS, *t*-tests were utilized. Table 5 presents the results of the *t*-tests. The quantitative data in this study suggests that, there is no significant difference in the symptoms of anxiety and depression, based on residence, for female students who identify as residing in a sorority house and their peers who do not reside in sorority housing. Twenty (20) percent of those living in sorority housing report symptoms of anxiety, compared to 24.1% of those not living in sorority housing. Similarly, 15.2% of those living in sorority housing report symptoms of depression, versus 21% of those living in non-sorority housing.

Table 5

t-test Presence of Anxiety (N = 6683*)* and *Depression (N =* 6774*) for Women 18-22 Who Responded to the 2013-2014 HMS, Based on Residence: Sorority Housing and Non-Sorority Housing*

	Housing	*n*	*M*	*SD*	*t*	*df*	*p*
Anxiety--Any	Sorority	65	.20	.403	.440	6681	.440
	Non-Sorority	6618	.24	.428			
Depression--Any	Sorority	66	.15	.361	1.173	6772	.191
	Non-Sorority	6708	.21	.408			

Summary

There were two primary findings in the present study. Within the study sample, the presence of symptoms of depression and anxiety were highly correlated. The presence of financial struggle or difficulty was correlated with the presence of depressive symptoms. In addition, the data in this study suggest that female students who identify as residing in a sorority house do not report more symptoms of anxiety and depression

than their peers who do not reside in sorority housing.

Chapter V further discusses the findings of this study, and compares the results with previous research on student mental health and sorority members. It also provides recommendations based on the study results, and outlines implications for future research.

V. SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Introduction

As college and university leaders work to address the mental health needs of their students, they are faced with significant challenges, which include increased demand for services and a challenging financial environment. One way to address such challenges is through the diversification of services to address student needs. Specific student populations have been specifically targeted for intervention, including first year students, international students, transfer students, veterans, and, more recently, athletes. One specific group of students that might benefit from increased study and attention are undergraduate women who are members of sororities, as minimal research has been conducted in this area to inform interventions and support program development.

Problem Statement

The mental health needs of college students are increasing in prevalence and severity (ACHA, 2013; Belch, 2011; Cleary, Walter, & Jackson, 2011; Gallagher, 2013; Hunt & Eisenberg, 2010; Kitzrow, 2003). Student retention, persistence, and success have been shown to be negatively impacted by mental health issues (Hartley, 2010; Gruttadaro & Crudo, 2012), not only for the individual with the issue, but also for those around them (Eisenberg et al., 2009; Gruttadaro & Crudo, 2012). Mental health issues can also negatively impact social relationships (Belch, 2011).

On college and university campuses, anxiety is the most prevalent and chronic of all mental health disorders (ACHA, 2013; Jane-LLopis & Matytsina, 2006), with 51% of undergraduates reporting overwhelming feelings of anxiety in the previous 12 months

(ACHA, 2013). Nearly 85% of students reported feeling overwhelmed by all they had to do during the previous twelve months (ACHA, 2013). Depression is also commonly experienced by undergraduates; within the previous 12 months, 47% of undergraduates reported they felt that things were hopeless, and 31% reported feeling so depressed it was difficult to function (ACHA, 2013).

Research indicates that underlying anxiety and depression are often co-morbid with disordered eating and substance abuse (Dobmeier et al., 2011; Larimer et al., 2004). While research on sororities and mental health primarily focuses on either alcohol abuse (Pike, 2000; Sher, Barthlow, & Nanda, 2001; Vohs, 2008) or disordered eating (Basow, Foran, & Bookwala, 2007; Becker et al., 2008; Becker, Smith, & Ciao, 2005), the underlying anxiety and depression (Dobmeier et al., 2011; Kaye et al., 2004; Larimer et al., 2004; Vohs, 2008) appears to be minimally addressed in the literature (Biddix et al., 2014). Anxiety and depression might influence or develop into maladaptive behavioral choices or other mental health disorders if not addressed. Early assessment and identification of potential issues is crucial.

Exploration of the prevalence of anxiety and depression within a sorority specific population may further the understanding of the presence and development of alcohol abuse and disordered eating. Given the disruptive impact these issues can have on student retention, persistence, and success, an assessment of member experiences with the most common mental health issues, anxiety and depression, should be considered. This information may help inform the development and delivery of interventions, strategies, and policies to address sorority member mental health.

This correlational, ex-post facto study explored the presence and severity of anxiety

and depression of women (*N* = 72) who self-identified as living in sorority housing. Permission was obtained to review data from the 2013-2014 Healthy Minds Study (Eisenberg & Lipson, 2014), including demographic information and results from the PHQ-9 (Kroenke et al., 2001) and the GAD-7 (Spitzer et al., 2006). Data analysis produced frequencies, correlations, and *t*-tests.

Principal Findings

RQ 1: What is the presence and severity of symptoms of anxiety of women who identify as living in a sorority house?

Of the women who identified as living in a sorority house (*N* = 72), 65 completed the GAD-7. Five women (8%) self-reported symptoms that would be classified as severe anxiety, with eight women (12%) reporting symptoms of moderate anxiety. Overall, 20% of the study sample reported that they were experiencing symptoms of anxiety.

RQ 2: What is the presence and severity of symptoms of depression of women who identify as living in a sorority house?

Of the women who identified as living in a sorority house (*N* = 72), 66 completed the PHQ-9. Table 3 presents the results of the PHQ-9 for the study sample, as well as for reference, all women, ages 18-22, who responded to the 2013-2014 HMS and did not reside in sorority housing. Three women (5%) self-reported symptoms that would be classified as Major Depression, with seven women (11%) reporting symptoms of other depression. Overall, 15% of the study sample reported that they were experiencing symptoms of depression.

RQ 3: What is the relationship between age, grade point average, financial status, employment status, year in school, and the presence of anxiety/anxiety symptoms?

A significant relationship exists between the presence of anxiety and depression (r = .36, r^2 = .13, p = .004, medium effect size). No statistically significant relationships exist between the presence and severity of anxiety/anxiety symptoms and age, grade point average, employment status or year in school.

RQ 4: What is the relationship between age, grade point average, financial status, employment status, year in school, and the presence of depression/depressive symptoms?

Financial difficulty is correlated with depression (r = .27, r^2 = .07, p = .008, medium effect size). Those respondents who reported financial struggles were more likely to report symptoms of depression. Conversely, those with fewer financial difficulties are less likely to report symptoms of depression. No statistically significant relationships exist between the presence and severity of depression/depressive symptoms and age, grade point average, employment status, or year in school.

RQ 5: Is there a significant difference between the self-reported symptoms of anxiety and depression in women, 18-22, who reside in sorority housing compared to those who live in non-sorority housing?

There was no statistically significant difference in the symptoms of anxiety and depression, based on residence, for female students who identify as residing in a sorority house and their peers who do not reside in sorority housing. Twenty (20) percent of those living in sorority housing report symptoms of anxiety, compared to 24.1% of those not living in sorority housing. Fifteen (15) percent of those living in sorority housing report symptoms of depression, versus 21% of those living in non-sorority housing.

Discussion and Implications

By all accounts, the prevalence and severity of student mental health issues on college and university campuses are rising (Belch, 2011; Cleary, Walter, & Jackson, 2011). Mental health issues can have significant, debilitating effects, including poor academic performance, discontinuous enrollment, and social difficulties (Belch, 2011; Cleary, Walter, & Jackson, 2011). Sororities must play a role, at both local and national levels, to address the mental health of their members.

Social engagement and sense of belonging-often highlighted as key benefits of sorority membership—are correlated with better mental health outcomes (Coyne & Downey, 1991; Dobmeier et al., 2011, Iarovici, 2014; Strayhorn, 2012). While sorority members in the present study did not fare worse than non-member peers on screenings for anxiety and depression, they also did not fare better. More research appears warranted to further explore this disconnect.

A supportive attitude regarding mental health is needed within the campus culture, to challenge stereotypes about mental health and to encourage those who need services to seek them out (Douce & Keeling, 2014). Stigma regarding mental health issues, however, still persists on college and university campuses. Sororities can play a role in stigma reduction, by creating environments in which members are able to openly discuss their struggles and experiences. To do this, advisors and leadership within the sorority community need to establish a culture of caring and support. The normalization of member experiences with anxiety and depression would be a key component of such a culture shift, and will likely begin with courageous members who are willing to share their personal experiences within the group.

Many colleges and universities participate in research studies to assess student

mental health, including the Heathy Minds Study and the National College Health Assessment. In order to best understand student experiences, detailed demographic information regarding students should be collected, including whether or not students are members of sororities. In present studies that do gather such information, details regarding the type of sorority is often not included. Knowing what governing council is associated with a sorority, or if a sorority is a sole local chapter, for example, would likely be helpful in applying the research to policy and practice decisions.

The answer to college student mental health issues cannot just be to keep increasing resources, particularly for crisis intervention—time and effort should be spent throughout a student's educational experiences to teach life skills, self-awareness, and coping skills (SAMHSA, 2007) so that they can be better prepared to manage the stresses inherent in life. The current climate of testing at the K-12 level does not seem to leave time for this, and students are coming into college without the skills they need to manage the transition and be successful in the face of stress. As students are coming in without the social and emotional skills they may need to be successful at the college level, a focus on such skills within the co-curricular experience, including sorority involvement, appears needed. Social-emotional learning supports positive mental health, enhances protective factors, and can be integrated into a variety of student programs, activities, and experiences.

Recommendations for Practice

National Panhellenic Conference (NPC) Sororities—National Level

- The NPC has initiated discussion of member mental health through their 2013 participation in a White House summit focused on student mental health, as well

as through a partnership with the National Alliance on Mental Illness to provide training materials to member organizations. In order to assess whether efforts to improve member mental health are successful, an assessment of the mental health needs of members should be undertaken to establish a baseline from which to measure the impact of outreach and education efforts Such an assessment could be initiated by the NPC, or individually by each member organization. The initial proposal for this dissertation would have provided an NPC member organization with such an assessment by surveying all active members. Unfortunately, none of the 26 NPC member organizations chose to participate in the survey, despite endorsement from the NPC.

- NPC member organizations that wish to focus on member mental health are encouraged to establish partnerships organizations that specialize in student mental health. For example, Alpha Chi Omega recently became the first NPC organization to partner with the JED Foundation, a non-profit organization with the mission of promoting the emotional heath of college and university students.

NPC Sororities—Campus Level/Individual Chapters

- The four processes in the socialization of new members--recruitment (rush), new member education (pledging), initiation (finishing) and post-initiation (ongoing)--represent four key opportunities for education, intervention, and assessment regarding mental health issues. Discussions of mental health, including how to recognize signs and symptoms of mental health difficulties, are recommended at each stage of socialization. The sense of belonging in sororities—'sisterhood'—can be leveraged to create a network of support related to mental health issues

as members cope with everyday challenges and adapt to college life. One way that members might be socialized into a culture of caring and support within the chapter and larger sorority community is through the use of existing educational curricula. For example, the Student Support Network training program, originated at Worcester Polytechnic Institute (WPI), is a training program focus on mental and emotional health, warning signs, help seeking, and resources (WPI, nd). The training manual is available online, free of charge.

- Individual organizations might call upon their alumnae to return to their chapters, to share their experiences with mental health when they were active members. The normalization of feelings of stress, worry, and sadness can create an environment in which members can talk about their issues and seek help if needed.
- Education for chapter leaders and campus staff regarding the connection between mental health and many of the negative issues that sororities are facing—alcohol/drugs, sexual assault, sexual health, interpersonal violence, hazing, academic problems—appears warranted. Such education could foster partnership and collaboration between sorority chapters and campus mental health center.

Colleges and Universities

- Campuses should consider partnerships with organizations outside of the academy that focus on student mental health. For example, the JED and Clinton Health Matters Campus Program is designed to assist campuses in promoting student mental health and emotional well-being. Currently, 56 campuses are

members of this program, which takes a holistic, campus-wide approach to addressing student mental health issues utilizing current best practices.

- Given the correlation of financial difficulties and the presence of depression, financial aid staff should receive some education regarding signs and symptoms of mental health issues. In addition, financial aid staff should be aware of campuses resources and services for students with mental health issues, as well as how to make referrals to these services if necessary.
- As more colleges and universities utilize learning outcomes to assess the success of co-curricular programming, social-emotional learning goals should be included. Such goals could be related to topics such as social skills, coping skills, managing emotions, and self-care, which are all components of positive mental health and emotional well-being.

Recommendations for Further Study

- There appears to be a need for sororities themselves, on a national level, to engage in research regarding member mental health. Such research can serve to establish a baseline to be able to measure progress towards meeting member needs, and to help determine/inform allocation of resources.
- Studies of student mental health should include demographic information specific to sorority membership so that data analysis can specifically focus on this population; gathering specific information regarding type of sorority, including governing council, would likely be most beneficial.
- Much of the present research focused on sororities is specific to organizations whose membership has been traditionally and historically Caucasian. Research

regarding the experiences of members of local, multicultural and predominantly African American organizations is needed.

- Research to explore what protective factors related to mental health are present in sororities, and how to maximize these factors for better mental health outcomes would be beneficial.

Summary

This research employed a correlational, ex-post facto design to examine the prevalence and severity of anxiety and depression within a sorority member population. Findings indicated that women living within sorority housing reported the same prevalence and severity of women living elsewhere. This chapter discussed and analyzed the results of the present study and the implications for further research, and made recommendations for how to address sorority member mental health.

The value of sororities has been, and continues to be in question (Biddix et al., 2014). Research about sorority involvement has focused on negative aspects of membership, particularly alcohol abuse (Pike, 2000; Sher, Barthlow, & Nanda, 2001; Vohs, 2008) and disordered eating (Basow, Foran, & Bookwala, 2007; Becker et al., 2008; Becker, Smith, & Ciao, 2005). Anxiety and depression, the most common mental health issues among college women (ACHA, 2013; Eisenberg & Lipson, 2014), are often co-morbid with disordered eating and substance abuse (Dobmeier et al., 2011; Larimer et al., 2004). However, sorority member experiences with anxiety and depression have been minimally researched.

Sororities often highlight sisterhood, belonging, and support as key benefits of membership. Research indicates that social support and sense of belonging are

correlated with better mental health outcomes (Long, 2012; Pascarella & Terenzini, 2005). However, the findings of this study indicate that sorority members may not have better mental health outcomes than nonmembers. Further understanding of the mental health experiences of sorority members appears warranted.

Student mental health cannot solely be the purview of campus mental health centers; within a community mental health model, “the whole community must be responsible for the provision of care to the student” (Siggins, 2010, p. 146). The range of interventions needed to address those things that impact student mental health—social and physical environments, campus systems, academics, and family/peer relationship—are widespread and varied, requiring full community engagement (Davidson & Locke, 2010). Sororities can, and should, play an active role in addressing the mental health needs of their members.

Having a campus culture and learning environment that supports mental health as a part of overall student well-being is a key need, deeply rooted in the mission of every institution of higher learning (Douce & Keeling, 2014). Commitment to student success includes supporting students across multiple domains, leading to increased student performance and satisfaction (Pascarella & Terenzini, 2005). Sororities can play a key role in enhancing their members’ experiences by establishing a culture of care and support related to mental health issues.

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APPENDIX A

NPC Endorsement of Proposed Study

Nicki Meneley <nicki@npcwomen.org>
Tue 10/14/2014 9:47 AM
Inbox

To:
Kerry L. Burns (Student);
...
Inbox

Ms. Burns,

Thank you for reaching out to the National Panhellenic Conference. The research review committee has "approved" your proposal and I have communicated that "approval" with the 26 inter/national organizations who are members of the NPC. The reviewers did discuss the potential pitfall of you getting one group to work with you but I have let the organizations know this is your intent and that you would be reaching out to them. While the NPC encourages participation, we cannot guarantee it.

Best wishes,
Nicki

APPENDIX B

Permission to Adapt the Health Minds Study Survey Tool

Re: healthy minds adaptation

Daniel Eisenberg <daneis@umich.edu>

Wed 4/2/2014 12:55 PM

To: Kerry L. Burns (Student) <KLB984@wildcats.jwu.edu>;

Hi Kerry,

Great to meet you in March! You're welcome to adapt our survey however you'd like. I look forward to hearing how your research goes.

Best,

Daniel

On Wed, Apr 2, 2014 at 12:45 PM, Kerry L. Burns (Student) <KLB984@wildcats.jwu.edu> wrote:

Hello Dr. Eisenberg--

I am thankful to have had the opportunity to meet you in person while attending the College Mental Health Research Symposium and Depression on College Campuses conference. I look forward to attending again next year.

I am in the process of writing a first draft of my dissertation proposal for my research on anxiety and depression amongst undergraduates who are members of sororities. I would like to adapt the Health Minds Survey tool for use in my research. Specifically, I would utilize the parts of the survey related to mental health and help seeking behaviors. It includes many of the individual measures I was considering for use.

How would I go about getting permission to use an adapted version of the Health Minds survey tool?

Best,

Kerry Burns

Daniel Eisenberg

Department of Health Management & Policy, University of Michigan

daneis@umich.edu, 734-615-7764

www-personal.umich.edu/~daneis/, www.healthymindsnetwork.org

APPENDIX C

Permission to Access Data from the 2013-2014 Healthy Minds Study

From: Mira Dalal [healthyminds@umich.edu]
Sent: Wednesday, November 05, 2014 1:08 PM
To: Kerry L. Burns (Student)
Subject: Re: data set request

Hi Kerry,

Thanks for your message. I would be happy to share the Healthy Minds data with you. Are you looking for data from a particular year, or will the aggregate data set suffice? What form would you like it in (SPSS, SAS, or Stata)?

Thanks,
Mira Dalal
HMN Research Study Coordinator

On Wed, Nov 5, 2014 at 12:25 PM, Kerry L. Burns (Student) <KLB984@wildcats.jwu.edu<mailto:KLB984@wildcats.jwu.edu>> wrote:
Hello,

I am writing to request access to your most recent data set for purposes of secondary analysis as part of my dissertation research. I am an Ed.D candidate at Johnson & Wales University in Providence, RI. My primary interest is exploring the prevalence of anxiety and depression in sorority members. While the Healthy Minds study does not specifically ask a question about fraternity/sorority membership, there is a designation regarding residency in fraternity or sorority housing. I am particularly interested in the results of the PHQ-9 and GAD-7 for those women who identify as residing in sorority housing vs. women who identify as living elsewhere.

Should you need any further information to facilitate this request, please let me know.

Much appreciated,

Kerry Burns, LICSW, CAGS
Doctoral Candidate
Johnson & Wales University, Providence, RI
klb984@wildcats.jwu.edu<mailto:klb984@wildcats.jwu.edu>
401-527-1773<tel:401-527-1773>

APPENDIX D

National Panhellenic Conference (NPC) Member Organizations

Pi Beta Phi

Kappa Alpha Theta

Kappa Kappa Gamma

Alpha Phi

Delta Gamma

Gamma Phi Beta

Alpha Chi Omega

Delta Delta Delta

Alpha Xi Delta

Chi Omega

Sigma Kappa

Alpha Omicron Pi

Zeta Tau Alpha

Alpha Gamma Delta

Alpha Delta Pi

Delta Zeta

Phi Mu

Kappa Delta

Sigma Sigma Sigma

Alpha Sigma Tau

Alpha Sigma Alpha

Alpha Epsilon Phi

Theta Phi Alpha

Phi Sigma Sigma

Delta Phi Epsilon

Sigma Delta Tau