Resilience in Physician Lives

by
William F. Morgan, MD

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ProQuest LLC.
789 East Eisenhower Parkway
P.O. Box 1346
Ann Arbor, MI 48106 - 1346

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Jemma Elliot, M.A., L.P.C.C., L.M.F.T.
Portfolio Evaluator

On behalf of the thesis committee, I accept this paper as partial fulfillment of the requirements for Master of Arts in Counseling Psychology.

_____

Jemma Elliot, M.A., L.P.C.C., L.M.F.T.
Research Associate

On behalf of the Counseling Psychology program, I accept this paper as partial fulfillment of the requirements for Master of Arts in Counseling Psychology.

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Avrom Altman, M.A., L.M.F.T., L.P.C.
Director of Research

Abstract

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Physicians require discipline, determination, a tolerance for delayed gratification, and brainpower to navigate college, medical school, postgraduate education, and their personal and professional careers. A high degree of resilience is needed for this journey. Adding to research on the concept of resilience, this thesis recognizes two factors beyond one's control that influence one's capability for resilience: infant attachment pattern and adverse childhood experiences. Alchemical hermeneutic methodology was employed to examine the influence of these factors on the development of resilience and to explore the vulnerability of medical students and physicians to a failure of resilience. A heuristic approach taken to incorporate the author's experience and observations as a physician provides evidence of the pressures and potential pitfalls in physician lives. The author proposes changes in medical training and the structure of medical practice that take into account individuals' strengths and limitations in regard to their capacity for resilience.

Acknowledgments

I would like to acknowledge the faculty at Pacifica Graduate Institute who have been excellent teachers and mentors in guiding me through this journey. This thesis could not have been created without the guidance and optimism of Jemma Elliot, my very understanding and wise thesis instructor. Likewise, my editor, Jan Freya, has molded this thesis, and her suggestions and wisdom have been invaluable.

I also extend appreciation to my Jungian therapist, Kim Arndt, who has guided me through the many of the rooms of my unconscious, and to my mentors throughout my life, in particular, Dr. Melvin Cohen, my pediatric residency director, who taught me how to be a physician, and Dr. Jim Haaland, my U.S. Air Force commander, who modeled how to accept responsibility and advance up the chain of command.

Dedication

This thesis is dedicated to my wonderful wife, who has been more than understanding and loving throughout our marriage and my medical career, and to our children, who grew up with medical parents and still pursued careers in medicine and nursing. I am deeply indebted to my wife and children, who have been resilient and loving.

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Chapter I
Introduction

Area of Interest

My parents said to me, as a child, if you fall down, pick yourself up and try again. Resilience was reinforced in my family in a variety of ways. Giving up and quitting was not an option. I retired from my medical career 3 years ago, and now, at age 70, I can look back at the resilience required to manage a career in medicine along with my personal life, including my role as a husband and father. My wife is a retired nurse, our son is a nurse, and our daughter is a family practice physician. I have watched our adult children face challenges requiring resilience, and now, our three grandsons are learning resilience, too.

I am a mentor to eight freshman medical students at the University of Arizona College of Medicine. At the other end of a physicians' career, I have seen my colleagues and their families struggle to adjust to retirement. Not only does the physician have to adjust to his or her internal changes, but the field of medicine is rapidly changing externally, in terms of insurance and government controls, reimbursements, and other factors that affect the physician's practice.

When I first entered the medical field, my professional life was "characterized by high demand and *high control*" (Sotile & Sotile, 2002, p. xv). Now, "being a physician means encountering high demand/*low control* stress, both at work and home" (Sotile & Sotile, 2002, p. xv). With this change, I have seen an ever-greater need for resilience.

Guiding Purpose

I am interested in the factors affecting resilience that a physician can control, but I am more interested in the factors that contribute to resilience that are not in one's control. The unconscious influence of one's experience of early childhood is critical, such as attachment patterns, as described by development psychologist Mary Ainsworth (Brisch, 2011, pp. 28-71). In addition, the discussion of various childhood traumas now being viewed as *adverse childhood experiences* shines a new light on adult emotional and physical symptoms (Felitti & Anda, 2010). The guiding purpose of this thesis is to elucidate how attachment patterns and adverse childhood experiences affect one's capability for resilience.

Rationale

A thorough search of the literature revealed little research on the combination of attachment patterns and adverse childhood experiences in physician lives as related to resilience. This is an area of interest that has relevance for the general public and, more importantly, for physicians who have responsibility for our health. Physicians must have a high degree of resilience to be effective and navigate the challenges of their personal and professional lives. Their understanding of their ability to meet these challenges as related to aspects of their personal histories will benefit them, the field of medicine, and, ultimately, those whom they treat.

Methodology

Research problem. Physicians have a high-stress career. Becoming a physician and practicing medicine requires a unique combination of brainpower, dedication, altruism, and a tolerance for delayed gratification. The physician's career is unique in that

a physician usually practices in his or her area of interest for 30 to 40 years, according to statistics published on the website *Best Medical Degrees* (Kemppainen, 2014). The website also reported that physicians will work a lifetime of 102,989 hours compared to the 65,360 hours worked by teachers. In addition, the average time spent becoming a doctor, including a 3-year residency, is 41,760 hours. This is the equivalent of 20 years of full-time work. If the additional hours of training are included, at 40,000 hours for physicians and 6,400 hours for teachers, the total hours are 142,989 for physicians and 71,760 hours for teachers. (This data is not meant to demean the teaching profession but is simply offered as a comparison of two helping professions.)

Adding to the pressure and stress of completing an undergraduate education, medical school, and residency training is the enormous debt incurred by physicians, calculated at over $300,000, whether paid by parents, savings, and/or loans. As noted by physician Ben Brown (2010), "physicians spend over a decade of potential earning, saving and investing in time training and taking on more debt, debt that isn't tax deductible" (para. 1).

These challenges seem to require a significant degree of resilience in physicians in order to maintain successful relationships and happy lives. Research shows that physicians in the United States have a high rate of burnout and low morale. In their article on stress among physicians and medical students, psychiatrist and educator Randy Sansone and physician Lori Sansone (2007) reported a study by the American College of Executive Physicians in which 46% of over 1,200 physicians surveyed indicated low morale ("Physician Morale," para. 1). In regard to job stress, 66.7% were found to have emotional burnout, 34.2% experienced marital or family discord, and 32.3% reported

depression (“Physician Morale,” para. 2). In discussing a survey of 545 Minnesota medical students in which 45% reported symptoms of burnout, Sansone and Sansone noted that “the prevalence of burnout significantly increased with the year of training” (“Medical Student Stress,” para. 1). Psychologists Julika Zwack and Jochen Schweitzer (2013) reported major depression in 12% and mild to moderate depression in 9.6% of 2,000 medical students. They also reported that the male-physician suicide rate is 1.4 times and the female physician rate 2.3 times higher than the average population (p. 382).

A medical student, M. L. Jennings (2009), suggested that “the root cause of burnout is a dehumanized, technocratic paradigm that fosters disconnection, devalues its students, and discourages self-care” (p. 264). The same conditions in medical school are fostered throughout postgraduate training and on into physician’s careers. Resilience is a prerequisite to survival in this system.

Research question. This research is an attempt to answer the following question: What are the resilience factors in physician lives and how can they be developed and supported? This question is broad; however, for the purpose of this thesis, the following areas are addressed: concepts of resilience, attachment patterns, neurobiology and brain plasticity, genetics and epigenetics, stages of psychological growth identified by developmental psychologist Erik Erikson (Erikson & Erikson, 1997), adverse childhood experiences, the psychology of physicians, and Jungian depth psychology as applied to resilience and the meaning and purpose of life.

Methodological approach. The focus of this thesis called out to me to combine alchemical hermeneutic and heuristic methodologies. Explaining Jungian psychotherapist Robert Romanyshyn’s (2007) concept of alchemical hermeneutics, depth psychologist

Michael Elliot said that "the topic chooses the researcher. Any personal/soul manifestations are part of the data collection (dreams, visiting images, noted synchronicity, etc.). The process is alchemical as the topic and data work on and transform the researcher" (personal communication, August 22, 2014). The topic of this research chose me just as clearly as the career of physician seems to have chosen me at an early age. At 14 years old, I had a serious bicycle accident that required hospitalization. The surgeon who took care of me was kind and understanding. I felt at that time that if I could do what he had done for me, then that was my life's calling. In the words of 19th-century American physician, Crawford Long, I have certainly felt "that my profession is a ministry of God to me" (as cited in McDowell, 2003, p. 9).

I have long pondered what makes some physicians successful not only in their medical careers but also in their personal lives. Some have very successful professional careers but their personal lives are a disaster for them and their families. I was curious as to what has happened to those physicians who struggle in their professional and or personal lives. When the process for selecting a thesis topic was introduced at the beginning of my second year of studies at Pacifica Graduate Institute, I knew immediately that this would be my topic and have never wavered. I feel this subject chose me so that I might help physicians identify and understand the factors regarding their own resilience that can allow them to find professional and personal satisfaction and happiness in their lives. This journey of research was internal for me as well, as I simultaneously sought to discover aspects of resilience that have been present in my life.

Regarding the heuristic approach also taken in this research, humanistic psychologist Clark Moustakas (1990) explained, "The heuristic process is

autobiographic, yet with every question that matters personally there is also a social—and perhaps universal—significance" (p. 15). Having been called to the topic, in applying heuristic methodology, the researcher explores, over time, a particular phenomenon in his or her personal experience (Pacifica Graduate Institute, 2014, p. 52). I have also felt personally called to this topic as an educator and one who wants, altruistically, to spread the word so that others may have insight and a sense of direction from one who has navigated the journey of a physician successfully. This is not to say that one's life can be without some bumps in the road; however, as indicated later in this thesis, the key to resilience is navigating those bumps or setbacks. This development of resiliency begins in infancy with a pattern of attachment to one's mother or primary caregiver. As that famous Tennessee philosopher, Dolly Parton, said, "the way I see it, if you want the rainbow, you gotta put up with the rain" (as cited in Alexander, 2014, para. 6). Resilience is about weathering the rainstorms to see the rainbow.

Ethical Concerns

As the author of this thesis, I have used my own life story exclusively to provide examples of resilience as it applies to attachment and adverse life experiences. The psychology of physicians in general is discussed, but no specific examples, case studies, or interview data are included in this study, and, therefore, there is no ethical requirement for consent or providing confidentiality for other individuals.

Overview of the Thesis

Chapter II presents a brief history of research on resilience. Although the field of the study of resilience in human beings is only about forty years old, the literature is now so exhaustive that only the works of some critical thinkers that are the most relevant to

this current study are reviewed. The chapter also incorporates a discussion of the attachment theories of English physician John Bowlby (1969), who initially specialized in pediatrics and then in child psychiatry, as well as the research of Ainsworth (1973), his successor, regarding attachment styles in infancy that influence resiliency in adulthood.

Aspects of recent research on resilience are explored with a focus on the mind-body connection. A discussion of Erik Erikson's model of the stages of psychosocial development (Erikson & Erikson, 1997) emphasizes the importance of successfully negotiating these passages in terms of establishing resilience. Research on the affect of adverse childhood experiences is reviewed to inform an understanding of early childhood trauma and its later impact on one's mental and physical health. The specific psychology of physicians is discussed as it relates to their capacity for resilience.

In Chapter III, the content of the literature review is applied to my personal and professional life with regard to recent family deaths and losses that challenged my resilience. My own infant and childhood attachment pattern is examined, and reference is made to the factor of resilience as demonstrated by clients in my clinical practicum.

In this chapter, the Jungian depth psychology concept of the shadow, as discussed by psychiatrist Adolph Guggenbühl-Craig (1971/1982) in his book *Power in the Helping Professions,* is applied to my experience as a physician. Having the MD behind their names grants doctors a power that can be misused, as illustrated by examples in Chapter III. The likelihood that physicians can be unconsciously led to identifying with the shadow side of the Wounded Healer archetype is explored in regard to the abuse of their power. The transcendent function is discussed in terms of the extremes of the human condition a physician confronts and may internalize.

Chapter IV presents a summary of the thesis. Conclusions are presented regarding this study's integration of research on attachment patterns and adverse childhood experiences as they impact the development of resilience. A proposal is made to include a personal, historical perspective when screening medical students and following them longitudinally through their careers. This data would allow medical schools to proactively identify students that may be at risk for academic problems, burnout, anxiety, depression, suicide attempts, dysfunctional relationships, and "complex multisystem psychological outcomes" (Briere & Hodges, 2010, p. 208), for example. This research is intended not only to contribute to strengthening the medical profession as a whole but also to provide a rationale for early intervention for individual physicians who need all the resilience skills possible in their toolbox.

Chapter II
Literature Review

Research and literature on resilience and research has increased steadily since the early 1970s. Resilience came into focus, in part, as our veterans returned from the wars they fought, and some came home with posttraumatic stress disorder (PTSD). Researchers began to question why some individuals could experience major trauma or repeated trauma and yet not develop depression, PTSD, and drug addictions; attempt suicide; and express multiple physical symptoms. Neuroscientific research related to resilience is beginning to offer insight regarding this question. This chapter presents a review of literature regarding various components of resilience including the findings of related neuroscientific research. Particular emphasis is placed on attachment patterns and adverse childhood experiences as major contributors to the understanding of the development of resilience and the reason resilience is unreliable for some individuals.

A Brief History of the Conceptualization of Resilience

Psychologist Norman Garmezy (Garmezy & Streitman, 1974) is considered one of the pioneers in the study of resilience. He published his initial research on this topic in relation to his study of adult schizophrenics and their children, who were at risk for mental health problems. One of his students, developmental psychologist Ann Masten, (Masten, Best, & Garmezy, 1990), furthered Garmezy's work and has published extensively on resilience. She and her colleagues have researched children who have overcome adversity and found that "there are fundamental but common and ordinary

adaptive systems that play a crucial role in resilience, and more broadly in human development. When these systems are available and operating normally, individual resilience is common" (Masten & Obradovic, 2006, p. 21). The adaptive learning systems Masten and her colleagues identified include learning systems of the human brain, the attachment system, the mastery motivation system, the stress response system, the self-regulatory system, the family system, the school system, the peer system, and cultural and societal systems (Masten & Obradovic, 2006, p. 21). They found that children who were successful had "high quality relationships with parents and other adults, and good cognitive, as well as social and emotional skills" (Masten & Tellegen, 2012, p. 345).

Trauma specialist Margaret O'Dougherty Wright, Masten, and researcher Angela Narayan (2013) described the "four waves of research on positive adaptation in the context of adversity" (p. 15). The first wave developed descriptions of resilience; the second wave "adopted a developmental systems approach" (p. 15); the third wave concentrated on "changing developmental pathways" (p. 16); and the current fourth wave is "focused on understanding and integrating resilience across multiple levels of analysis, with growing attention to epigenetic and neurobiological processes, brain development, and the ways that systems interact to shape development" (p. 16). In short, current research into the development of resilience is no longer focused on the question of nature versus nurture, but rather on how the complex factors of the mind and environment are integrated with the physiology and development of the brain. In other words, the focus now is on the mind-brain-body connection.

Donald Meichenbaum (2012), a cognitive-behavioral psychologist who wrote *Roadmap to Resilience: A Guide for Military, Trauma Victims and Their Families,*

defined resilience as "as the capacity to adapt successfully in the presence of risk and adversity" (p. 3). Meichenbaum has treated and conducted research with individuals who have been traumatized in natural disasters, violence, and terrorist attacks; people who have suffered sexual and physical abuse and torture; and veterans who have PTSD. Based on his findings, he concluded that "all individuals have the ability to improve their level of resilience following the experience of stressful event" (p. xii). He claimed that his book provides "a *roadmap* on ways to improve your level of resilience" (p. xi). His model for improvement includes "1. Physical fitness, 2. Interpersonal fitness, 3. Emotional fitness, 4. Thinking (or Cognitive) fitness, 5. Behavioral fitness, 6. Spiritual fitness" (p. xii).

Psychiatrists Steven Southwick and Dennis Charney (2013) defined resilience as "having the capacity to bend without breaking, to return to an original shape or condition" (p. 7). They noted that the American Psychological Association described *resilience* as "the process of adapting well in the face of adversity, trauma, tragedy, threats and even significant sources of stress—such as family and relationship problems, health problems, or workplace and financial stresses" (as cited in Southwick & Charney 2013, p. 7). Southwick and Charney conducted a study of "highly resilient individuals: former Vietnam prisoners of war (POWs), Special Forces instructors, and civilian men and women who had not only survived enormous stress and trauma, but had somehow endured or even thrived" (p. 9). They found 10 resiliency factors: "realistic optimism, facing fear, moral compass, religion and spirituality, social support, resilient role models, physical fitness, brain fitness, cognitive and emotional flexibility, and meaning and purpose" (p. 13).

In *Trauma-Proofing Your Kids,* psychologist Peter Levine, who focuses his practice on the resolution and healing of trauma, and Maggie Kline (2008), from her perspective as a family and child therapist, school psychologist, and parent, clearly outlined the way to resilience for children. They explained that children's vulnerability to trauma depends on a variety of factors, including age, quality of early bonding, trauma history, and genetic predisposition. The younger the child, the more likely he or she will be overwhelmed. With single-event trauma, they said, children's reaction is primarily physiological rather than psychological, and their primary response is instinctual. The authors pointed out that the brain's main function is survival, and it programs people with a fight or flight response. Freezing, they said, is the last resort, but the physiological fight or flight response is still in full force.

Levine and Kline (2008) found that in order for children to resolve a trauma, "there must be a safe adult to support them." (p. 10). They noted that "the younger the child, the fewer resources she has to protect herself" (p. 10) and explained,

> The likelihood of developing traumatic symptoms is related to the level of shutdown as well as to the residual survival energy that was originally mobilized to fight or flee. This self-protective process has now gone haywire. Children need consistent, patient support to release this highly charged state and return to healthy, flexible functioning. (p. 11)

The authors stated that "prenatal infants, newborns, and the very young children are the most at risk to stress and trauma due to their undeveloped nervous, muscular and perceptual systems" (pp. 11-12). Emotions, said Levine and Kline, are anatomically mapped in the brain for survival, having been etched in specific neural circuitry corresponding to the specific physical sensations from various parts of the body. The authors observed that "when something we see, hear, smell, or taste evokes similar body

sensations to . . . [a] previous threat, the emotions of fear and helplessness are evoked again" (p. 12). If this trauma occurred before children developed language capability or so early that they have no conscious memory of the event, the fight or flight response can be activated again without them understanding it.

In order for an adult to help a child with trauma or stress, advised Levine and Kline (2008), it is important for the adult not to be overwhelmed by the child's experience. The adult must remain calm. Levine and Kline declared that "children, by their nature, are both fragile and *resilient*" (p. 16) and that the more they learn to win mastery over their setbacks and losses, the more competent and resilient they become. They pointed out that "children 'read' the facial expression of their caregivers as a barometer of how serious the danger or injury is" (p. 16). The caregiver's visible control is reassuring and necessary. When caregivers are in this situation, by keeping calm, they can attend fully to the child's needs. By being allowed to calm themselves in the caretaker's presence, children learn to handle the current episode and future stresses or disappointments. According to Levine and Kline, resilience is built in a gradual fashion by overcoming one stressful event after another; resilience builds on past resilience. The authors incorporated these principles into a series of simple steps that can be followed to build resilience (p. 36). In addition, research has found certain individual attributes, relationships, and community resources and opportunities outside the family to be associated with resilience (Masten & Powell, 2003, p. 13) as discussed in Chapter III.

Attachment Theory Related to Resilience

In his book, *Treating Attachment Disorders: From Theory to Therapy*, neurologist and child and adolescent psychoanalyst Karl Brisch (2011) traced the development of

attachment theory, beginning with the research of John Bowlby (1907-1990), an English physician who initially specialized in pediatrics and then in child psychiatry. Prior to World War II, he worked at the London Child Guidance Clinic and became convinced that early environmental experiences were important. During World War II, he worked alongside army psychoanalysts and psychiatrists and subsequently wrote a paper that dealt with early childhood experiences, in which, according to Brisch, he proposed that "children's actual early experiences in the relationship to their mother could play a fundamental role in development, and that neither the Oedipus complex and its resolution nor sexuality was solely responsible for a child's emotional development" (p. 9). When presenting his theories to the British Psychoanalytic Society, "Bowlby laid out for the first time his conviction that there is a biologically based system of attachment that is responsible for the powerful emotional relationship between mother and child" (p. 10). He believed that the "oral satisfactions of nursing are primarily responsible for the development of a child's attachment to the mother" (p. 11).

According to Brisch's (2011) account, Ainsworth joined Bowlby in attachment research and later developed a test to study children's attachment between the ages of 12 to 18 months that became known as the "strange situation" (as cited in Brisch, 2011, p. 11), whereby the mother and baby would be separated in the care of a stranger for a short period of time. The mother would then return, and the interactions of the infant and mother were observed. From experiments using the strange situation, the following attachment patterns were observed in infants (pp. 30-33):

- Secure attachment: After the mother returns, the child reacts with happiness, wants to be held and consoled, and then returns to play (50-60%).

- Insecure avoidant attachment: These children react with little protest to the mother leaving and, after her return, react to her with avoidance and a lack of physical contact (30-40%).
- Insecure ambivalent (anxious) attachment: These children display the greatest distress after separation. They want physical contact but also act aggressive toward their mothers (hitting, pushing away, etc.) (10-20%).
- Insecure-disorganized attachment: When their mother returns, these children run toward the mother, then stop and run away from her, increasing their distance (3-5%). This disorganized attachment is a high clinical risk for the child's future attachments. The mother usually has her own history of trauma.

The factors involved in these attachment patterns include the mother's sensitivity or psychological factors and the genetic or biological factors for the child.

> Research on the effect of the mother's prenatal experience—especially of fearfulness—on fetal development and on infant behavior regulation show that stressors during pregnancy affect the irritability of the infant and decrease his capacity to control behavior. Infants of fearful mothers have more frequent problems with self-regulation than do other infants. (p. 34)

Brisch (2011) reported that subsequent research has found that children with disorganized attachment have an increased incidence of ADHD with an overlap of psychopathological patterns and similar polymorphisms in the genes for certain dopamine receptors (p. 36). He stated, "A diagnosis of disorganized attachment is an unambiguous indication for trauma-centered psychotherapy—including concurrent therapeutic treatment of the parents. The goal here is to interrupt the intergenerational transmission of the parents' traumatic experiences" (p. 37). He noted that a secure attachment is a protective factor that makes the child more resilient and allows for the child to deal better

with stress factors and not to succumb emotionally (p. 49). Children who are securely attached, he said, usually have mothers whose attachment in their early lives was secure; likewise, children with insecure attachments usually have mothers with insecure attachments, unless the mother has had a significant mentor or psychotherapy (p. 51). Brisch alleged that "important life events such as divorce, relocation, illness, or the death of a parent during the first year of life are capable of transforming a secure quality of attachment into an insecure one" (p. 53). From a family systems point of view, various individual family members can have a positive or negative effect on the child's attachment as well (p. 70).

The discussion of attachment would not be adequate without mentioning psychoanalyst and pediatrician Donald W. Winnicott's pioneering work in this field (see, for example, Winnicott, 1971). He believed that "experience was traumatic for the child if it was incomprehensible, beyond the child's grasp. The onus was on the mother, at first, to present the world to the infant in manageable doses" (Phillips, 1998, p. 2). The mother had to be "good enough" (Winnicott, as cited in Phillips, 1998, p. 2).

Clinical psychologist Sarah Daniel (2015) stated that a childhood attachment pattern usually manifests in the adult's attachment pattern. She added, however, that "attachment patterns are not necessarily stable throughout childhood. Nor are they stable as the child moves from childhood into adulthood" (p. 25), because life events such as the death of a parent, divorce, and others can lead to changes in the adult attachment pattern, even during the life span of the adult. Neurobiological factors to consider with regard to such changes are epigenetics and neuroplasticity.

Neurobiology and Brain Plasticity

As mentioned earlier, resilience and human physiology are intimately linked. Linda Graham (2013), a marriage and family counselor with an interest in the neuroscience of relationships, pointed out that people learn from their experiences and that the brain "translates or encodes that learning into its neural circuits" (p. 4). Conditioning and neuroplasticity make this possible (p. 4).

Southwick and Charney (2013) identified the regions of brain that interact in the stress response. The amygdala, they said, is the key player in the fight or flight response. The prefrontal cortex (PFC) is the brain's "executive center" (p. 16), which helps to control emotions and keep the amygdala in check. The hippocampus is the main player in learning and memory and helps to regulate the stress response but is vulnerable to chronic stress. The anterior cingulate cortex, which is connected to the PFC and the amygdala, helps with attention, detects errors, assesses emotional information, and regulates emotion. The anterior insula is involved in many functions concerning emotions and the sense of self-awareness. The nucleus accumbens has a central role in the brain's reward circuit or pleasure center. It works with the ventral tegmental area to mediate reward and punishment and is associated with the pleasure of food, sex, and drug abuse (p. 16).

My educational training as a medical doctor prompts me to simplify this information by offering the analogy that the brain is like a two-story building with a basement. The second floor is the prefrontal cortex, for cognition and reasoning; the first floor is the limbic system, for emotions and memory; and the basement is the brainstem, which works unconsciously and carries out the orders of the other floors or can act on its own for survival. In addition, the autonomic nervous system, with the sympathetic

system, activates the stress or the fight-or-flight mode, and the parasympathetic system is the brake or conservator of resources under nonstressful conditions (Southwick & Charney, 2013, p. 16).

The master control system in terms of stress is the hypothalamic-pituitary-adrenal (HPA) axis, which responds to stressful events and instructs the body how to respond, particularly with regard to chronic stress (Southwick & Charney, 2013). As explained by Southwick and Charney (2013), as part of the HPA axis, the following hormones and neurotransmitters are active in the stress response as well as in resilience: (a) cortisol, a stress hormone secreted by the adrenal glands; (b) epinephrine (adrenaline), a stress hormone and neurotransmitter released by the adrenal glands for fight or flight responses; (c) norepinephrine, a hormone and neurotransmitter that helps with alerting and alarm reactions in the brain and memory of emotional events; (d) serotonin, a neurotransmitter that regulates mood, sleep, appetite, and other functions; (e) dopamine, a hormone and neurotransmitter associated with pleasurable feelings and in the reward system; (f) neuropeptide Y (NPY), which acts as a neurotransmitter to decrease anxiety and return the nervous system to baseline after a stress response; and (g) oxytocin, a hormone that is associated with maternal behavior, bonding, social communication, trust, social support and anxiety reduction (pp. 16-17). Related to these is the brain-derived neurotrophic factor (BDNF), which repairs and grows new neurons in the nervous system (p. 17).

Genetics and epigenetics. Genetics determines the genes that one inherits; however, Southwick and Charney (2013) emphasized that "resilience to stress and susceptibility to develop PTSD undoubtedly result from complex interactions between multiple genes and multiple environmental factors rather than from any single gene

variant" (p. 18). In recent years, epigenetics, a system affecting which genes are expressed, "determines whether any given gene is actually made into its gene product or not" (Stahl, 2012, p. 250), has become central to explaining how certain genes can be turned on and others turned off. Southwick and Charney (2013) explained that stress, social interactions, drug use, and, in general, internal and external environmental factors can cause biochemical reactions that can turn genes on or off. Furthermore, these epigenetic events can be passed from the mother to the offspring and one generation to another (pp. 18-19). Resilience training and psychotherapy can be considered avenues of healthy epigenetic change (p. 19).

One of the exciting findings of epigenetic research is that psychotherapy can act as an epigenetic factor, just as psychopharmacology can. Stephen M. Stahl (2012), a psychiatrist with a research interest in psychopharmacology, reported that "stress testing uncovers inefficient information processing (too high or too low), indicating malfunctioning in specific circuits" (p. 249). He claimed that, in such instances, psychotherapy is effective not only due to "its classical psychodynamic principles but also . . . as a neurobiological probe capable of inducing epigenetic changes in brain circuits" (p. 251). A combination of medication and psychotherapy is indicated for moderate to severe depression, for example (Springer & Harris, 2010, p. 369).

Neuroplasticity. One of the more impressive areas of brain research involves neuroplasticity, whereby the brain can respond to good or bad, intrinsic or extrinsic stimuli by changing its structure, function, and connections or wiring (Southwick & Charney, 2013). According to Southwick and Charney (2013), with activity, the brain has a normal pruning process, and "by repeatedly activating specific areas of the brain, we

can strengthen those areas" (p. 19). With advanced methods of imaging, through PET scans and functional MRIs, medical science can often see evidence of neuroplasticity (p. 154).

Genetics, epigenetics, and neuroplasticity now can explain how the brain grows, adapts, and changes. The next section presents a discussion of the psychological growth, adaptations, and changes of the mind during development.

Resilience and Human Development

Developmental stages. Psychologist Joan Erikson stated,

> One may well ask how it is that we find the *epigenetic* principle so practical in depicting the overall configuration of *psychosocial* phenomena. . . . The answer must be that the stages of life remain throughout "linked" to somatic processes, even as they remain dependent on the psychic processes of personality development and on the ethical power of the social process. (Erikson & Erikson, 1997, p. 59)

Her husband, Erik Erikson, had a background in developmental psychology and anthropology, and in his approach to psychoanalysis, included the effects of culture and society on psychological growth. Erikson identified eight stages of psychosocial development, from infancy to old age (Erikson & Erikson, 1997; see Appendix A**).** In their book, *The Life Cycle Completed,* Erikson and Erikson (1997) explained that each of the eight stages is based on a specific psychosocial conflict or crisis. "The resolution of each crisis is associated with a particular psychosocial outcome that shapes the way the individual relates to other people and to society" (Luborsky, O'Reilly-Landry, & Arlow, 2008, p. 31). In this model, "each step . . . is grounded in all the previous ones" (Erikson & Erikson, 1997, p. 59). Erikson and Erickson (1997) further explained that "the stages of life remain throughout 'linked' to somatic processes, even as they remain dependent

on the psychic processes of personality development and the ethical power of the social process" (p. 59).

In addition to viewing resilience as related to successfully resolving the crises outlined in the Eriksonion model of eight stages of psychosocial development, resilience can also be found to result from rites of passage that require work and effort. Some of these rights of passage are easily identifiable, such as a bar mitzvah or bat mitzvah for Jewish boys and girls or basic training for the military. These passage are considered "Initiations . . . [that help] to speed up the search for identity" (Stephenson, 2004, p. 12).

Rites of passage. In his book, *From Boys to Men,* adolescent counselor Bret Stephenson (2004) discussed the lack of rites of passage for today's adolescents by comparison with my theme of the hero's journey, as identified by mythologist Joseph Campbell (2008). Stephenson (2004) wrote,

> If we imagine that the goal of a boy's initiation is to get to the other side of a river, and his rite of passage is the physical crossing of that river, then the Hero's Journey would be the vessel he uses to cross the water. (p. 100)

Fairy tales are replete with the hero's journey. Poet and men's movement leader Robert Bly (1990) applied elements of the fairy tale *Iron John* to the hero's journey of initiation. In the story, the boy (the Hero to be) must go into the forest to meet the wild man, Iron John, and gain knowledge. Most importantly, the boy becomes a man and must bring the knowledge back to the kingdom. Through a somewhat frightening and uncertain journey, resilience is evident as the boy becomes the man. The essential components of a rite of passage that give it the magical quality of a fairy tale are transition and transformation.

Stephenson (2004), related that David Oldfield, author of a program that conducts adolescent initiations, was strongly influenced by Campbell's work in formulating his

model of the stages of rites of passage as follows: separation; isolation; trials and obstacles; transition/transformation (symbolic wounding, symbolic death, symbolic rebirth); and incorporation (p. 79). As this list implies, psychological and physical challenges and trauma are part of childhood and adolescence. Some are more profound and significant than others. The concept of adverse childhood experiences helps to explain the wounding from these experiences as it relates to the formulation of resilience.

Adverse childhood experiences (ACEs). As discussed in relation to attachment theory, "attachment categories reflect the degree to which very young children expect to emotionally interact with and be comforted by their caregivers" (Karr-Morse, 2012, p. 205). Family therapist Robin Karr-Morse (2012) stated that securely attached children are connected to their caregiver (usually the mother) "in play, often affectionate, and [are] comfortable exploring their environment with the caregiver nearby" (p. 205). If attachment problems are detected early, when therapeutic support is available, said Karr-Morse, even a child with disorganized attachment may become securely attached (p. 208).

Research on ACEs was initiated by a team led by physicians Vincent J. Felitti and Robert F. Anda (Felitti et al., 1998). Their initial paper identifying ACEs connected trauma before 18 years of age with mental, emotional, and or physical illness in adulthood. As reviewed by psychiatric nurse Ruth Staten (2013), in Felitti et al.'s 1998 study of "17,000 HMO participants, two thirds of participants reported experiencing at least one adverse childhood experience and 20% reported three or more adverse childhood experiences" (p. 160). The study demonstrated that ACEs are more prevalent than is generally assumed and the effects are long lasting into adulthood. Further research

on ACEs found that “if one experiences one adverse event, there is an 80% likelihood that there will be other events with increasing numbers of experiences leading to increased health problems throughout adulthood” (p. 160). According to the scoring method developed by ACE researchers, an ACE score of 4 indicated being at risk for the following conditions or illnesses: alcohol and drug abuse, chronic obstructive pulmonary disease (COPD), heart disease, depression, fetal death, high risk sexual activity and STDs, HIV, sexual assault, domestic violence, liver disease, smoking, obesity, cancer, unintended pregnancy, arthritis, and poor adherence to medical regimens (Felitti & Anda, 2010, p. 84). In addition, “individuals with ACE score 6 and higher had a lifespan almost two decades shorter than those with an ACE score 0” (Felitti & Anda, 2010, p. 84).

The original ACE questionnaire developed by Felitti et al. (1998) has now been reduced to 10 questions, with each question receiving one point (see Appendix B). The questions cover fear in the home, domestic violence, child abuse, child sexual abuse, being unloved in the family, neglect, divorce or abandonment by a parent, parental alcoholism or drug abuse, mental illness or attempted suicide by a household member, and conviction and imprisonment of household member (Felitti & Anda, 2010, pp. 78-79).

Most importantly, in ongoing ACE program research, Anda et al. (2006) connected the ACE studies with neurobiology and epidemiology. Among their findings was an increase in cortisol, epinephrine, and neurotransmitter alterations in individuals with high ACE scores. In addition, functional magnetic resonance imaging (fMRI) studies have provided “neurobiological evidence [that] supports the hypothesis of dysfunction in the hippocampus, amygdala, medial prefrontal cortex, and other limbic

structures believed to mediate anxiety and mood dysregulation following early abuse" (p. 181).

ACE program research found, however, that physicians are reluctant to question their patients about ACEs because it takes time, physicians and patients are often uncomfortable regarding the topic, and many physicians do not have the training or experience to deal with the responsibility of holding this information (Edwards, Anda, Felitti, & Dube, 2004). Researchers concluded that "the most important follow-up question a medical practitioner can ask when a patient reports childhood trauma is, 'How has that experience affected you in your adult life?'" (Edwards et al., 2004, p. 90) and that the answer may help to explain the many unconnected symptoms the patient is presenting and alterations in neurodevelopment.

The Psychology of Physicians

My experience in the profession has shown me that physicians are well trained to look for pathology in their patients, but they are not good at looking at themselves. Part of the problem is that "the physician who treats himself has a fool for a patient" (Osler, 2008, p. 53). Medical training induces self-denial in physicians. Sotile and Sotile (2002) claimed that "medical training teaches you to repress awareness of your own needs and feelings and to rely too much on your ability to delay gratification as you work to gain approval from others" (p. 47). They found that physicians' profiles often include an "excessive busyness; a compulsive pursuit of perfection; insistence that others submit to your way of doing things; emotional detachment; loss of playfulness; poor interpersonal relationships; and the 'neurotic triad' of doubt, guilt, and an exaggerated sense of responsibility" (pp. 47-48). My observation is that physicians generally have feelings of

inadequacy and therefore overcompensate with work and achievements. When under stress, the physician simply works harder and longer, because that was the norm in medical training.

Sotile and Sotile (2002) posited that "emotional mismanagement can become a physician's worst enemy" (p. 48). Those affected by the physician's emotional mismanagement often respond with passive or passive aggressive behavior (p. 48). These individuals are usually family and staff, who effectively become extended family due to long hours of work alongside the physician. Sotile and Sotile indicated that the balancing work and personal life becomes an issue for all physicians. It may be that attaining a balanced life is more an ideal than a reality for physicians, but they can reset their priorities. Sotile and Sotile recommended therapy that includes "effective emotional management" (p. 22). They proposed personal and family therapy as a good way for physicians to begin self-examination and explore deeper, underlying issues such as what myth the physician wants to live out.

Jungian Concepts as Applied to Resilience

Physicians are held in high esteem in society by the nature of their education and the responsibility they take on with their work. In maintaining this position and status, physicians may develop a powerful *shadow*, analytical psychologist Carl G. Jung's (1951/1968) term for the repressed aspects of oneself that do not fit one's persona. Guggenbühl-Craig (1971/1982) discussed the many manifestations of the "power shadow" (p. 26) of those in the helping professions. Physicians often try to force their views on their patients (p. 21), because "the power drive is given free rein when it can

appear under the cloak of objective and moral rectitude. People are the most cruel when they can use cruelty to enforce the 'good'" (p. 23).

Guggenbühl-Craig (1971/1982) posited that the power shadow of physicians manifests as the charlatan and or the high priest (p. 31). The charlatan physician usually appears in most physicians sometime in their careers. Guggenbühl-Craig pointed out one of the tactics of the charlatan physician: "By not pointing out the emotional components to those patients whose bodily complaints are largely psychic in origin, the average physician encourages his patients to emphasize even more the somatic aspects of their emotional problems" (p. 31). This omission benefits the physician interested only in money or other reward or in avoiding the real issue.

The shadow side of the high priest is the physician who thinks he knows it all or acts like it to the patient. Guggenbühl-Craig (1971/1982) noted that "the dark side of this noble image of the man of God is the lying hypocrite, the man who preaches not because he believes, but in order to gain influence and power" (p. 32). The physician whose ego becomes grossly inflated will come to believe that he is Godlike.

Discussing Jung's concept of the *wounded healer*, Guggenbühl-Craig (1971/1982) explained that "the mythological image [archetype] of the wounded healer is widespread. Psychologically, this means not only that the patient has a physician within himself, but also that there is a patient in the doctor" (p. 81). A polarity thus exists in the doctor-patient relationship. Within the doctor is a patient, because all doctors also have been in the patient role. The patient in the doctor wants that healer archetype in himself or herself to be manifest as well. It may be too anxiety provoking, however, for the

doctor to feel the patient's pain as if it were his or her own, because it would make the physician have to confront his own mortality (p. 85).

> Reunification with the missing aspect of the polarity may take place through power. The doctor may turn his patient into an object of his power drive. . . . The doctor is no longer able to see his wounds and potential for illness. He sees sickness only in the other. He becomes powerful through psychological failure rather than through strength. One pole of the archetype is repressed, then projected, then reunited through power. The patient can do precisely the same thing. (p. 83)

According to Guggenbühl-Craig, men and women are attracted to a career in medicine by the healer-patient archetype (p. 85). "So the physician tries to reunite the split archetype through power and the patient through acknowledgement of this power, through his subjection, or childish independence" (p. 84). In this case, the physician comes across as dictatorial and the patient as a willing, dependent partner. In addition, the physician has to deal with his or her own personal unconscious shadow, the collective unconscious shadow, and the archetypal shadow, which Guggenbühl-Craig called *evil* (pp. 95-97).

It may be that the majority of physicians entered the medical profession because they felt they were called to it. It takes brainpower, determination, discipline, and a tolerance for delayed gratification to pursue a medical degree, and a person must have genuine altruistic motives; otherwise, the goal of becoming a physician is too hard. The calling, however, may go deeper than this, as indicated by Jungian psychoanalyst James Hollis (2005): "The Latin word [*vocatus*] is the source of our *vocation,* that is, our 'calling,' that to which the soul summons us. . . . [It is a] call to serve, a summons to serve spiritual enlargement" (p. 146). Executive coach John Schuster (2003) described a calling in this way: "Calls command that you attach yourself to something infinite and

lasting so that you can escape the life you thought you deserved and replace it with the life you were meant for" (p. 14).

Chapter III provides an exploration of resilience as a factor in physicians maintaining a vitally important sense of meaning and purpose in their lives as a whole. In considering avenues of treatment for physicians suffering burnout, the recovery model (person centered) is contrasted with the medical model (illness centered) (Ragins, 2002) along with the managing of energy rather than time (Loehr & Schwartz, 2003).

Summary

This literature review provided a brief historical account of the early pioneers of theory regarding resilience and how research on resilience has evolved. With regard to the wars in Vietnam and Middle East, the concept of PTSD from psychological and or physical trauma has become well understood. Mental health professionals such as Meichenbaum (2012) and Southwick and Charney (2013) are furthering research on the involvement of resilience in process of trauma, its effects, and the treatment of trauma and PTSD. Levine and Kline (2008) have investigated trauma in children and the role of the parent or parent figure in their care.

Critical to the child's view of the world is the attachment pattern that is forged in very early life. Bowlby's and Ainsworth's concepts of secure or insecure attachment patterns (Brisch, 2011) were discussed. Advances in the understanding of neurobiology and brain plasticity have provided a link to developmental psychology and this is an area of ever-increasing discoveries. Most exciting in terms of resilience is research in the area of genetics and epigenetics with regard to the question of nature versus nurture that enables an understanding of the effect of one's environment, internal and external, on the

genetic expression of health and disease. The psychosocial stages of development outlined by Erikson (Erikson & Erikson, 1997) were discussed, and rites of passages were emphasized as helping the growing person to develop resilience The most recent advance in the role of trauma in development is the concept of ACEs that has been developed by Felitti and others (Anda et al., 2006; Edwards et al., 2004; Felitti & Anda, 2010; Felitti et al., 1998). The ACE scores can be correlated with later mental and physical illness, and a shortened life span can be predicted with high scores. ACE clearly impacts mental and physical health as well as one's resilience.

More specifically in terms of resilience as a factor in physicians' personal and professional success, the literature review drew on Sotile and Sotile's (2012) description of the psychology of physicians. They emphasized that what makes individuals excellent physicians can be to their detriment as well and provided an understanding of how physicians can be educated and trained to be resilient in order to avoid such pitfalls.

The Jungian or depth psychological aspect of the physician's psyche was explored. Given the power that physicians have in today's society, their shadows can unconsciously manifest. Guggenbühl-Craig (1971/1982) discussed how the physician can become caught in the power shadow, which can appear in a range of manifestations, from the high priest who manipulates the patient with his or her knowledge and position to the charlatan who uses his or her power for reward at the expense of the patient. Another example is the shadow of the healer-patient archetype in which the physician becomes dictatorial, and the patient becomes a willing dependent partner. The physician must thus confront his or her personal, collective, and archetypal shadow motivations. As

Guggenbühl-Craig stated, “Health and sickness, the healer and the ill, doctor and patient, are all archetypal motives” (p. 78).

In the following chapter, emphasis is placed on physician’s attachment patterns and their ACE scores. Critical factors in the areas of attachment and ACEs are established before the young person can have any control over them. In Chapter III, I propose that much of problematic issues in physician’s mental and physical health exist due to these two factors. Examples from my personal and professional life are offered as illustration.

Chapter III
Clinical Applications of Resilience in Physician Lives

Introduction

I had never given much thought to the concept of resilience in general or as it applied to me. Beginning in 2009, however, a series of events involving loss would test my resilience and allow me to begin to think about it as it applies to my fellow human beings. In November of 2009, I had a serious bike accident that resulted in bed rest and or no weight bearing for 3 months. This necessitated resigning from the medical practice I had started and later working part-time as a physician employee. Four months later, in March of 2010, my best friend and golf buddy committed suicide, and in June of that year, my mother-in-law died. The next winter, my mother died of Alzheimer's disease. Within 3 months, my father died in his sleep, because he said that he was "done" without my mother. My parents had been married for 69 years. My sister, who was like a twin to me, died one year later from cancer, in July of 2012. In addition, I have known two physicians in my community who have died by suicide, and recently one of my counseling psychology program classmates died suddenly this past summer, with no explanation.

One of the definitions of *resilience* that resonates with me states, "Resilience refers to patterns of positive adaptation in the context of significant risk or adversity" (Masten & Powell, 2003, p. 4). Masten and pediatric psychologist Jenifer Powell (2003) focused on three contexts in the lives of individuals in which they identified attributes

associated with resilience: (a) individual differences (cognitive abilities, self-perception of competence, worth and confidence, temperament and personality, self regulation skills, positive outlook on life); (b) relationships (parenting quality, close relationships with competent adults, connections to prosocial and rule-abiding peers); and (c) community resources (good schools, connections to clubs or religious groups, neighborhood quality as well as quality of social services and health care) (p. 13).

In my life as a physician, I attempted to maintain boundaries between my personal and professional life. The huge factor that blurred those boundaries was the fact that I was usually on call every second to fifth night and on weekends (Friday night to Monday morning). My specialty was allergy and immunology. My group practice cared primarily for very sick asthmatic children and adults. The drugs we have today to control asthma were not available then and so there were many phone calls, emergency room visits, and hospital admissions. My children and wife knew that when dad was on call, they could not count on him to attend soccer games or participate in other family activities. I tried to take care of myself by controlling what I could in terms of my well-being. This included regular daily physical exercise; eating healthily; being sensitive to my fatigue (mental, emotional, and physical); attending church; having a strong social network of friends and family; living according to my values; and protecting my relationships, particularly those with my wife, children, and other close relatives. I think my philosophy of always doing the right thing and taking as much vacation time as possible was helpful in maintaining my optimism, love of medicine, and life, in general. In the course of my medical career, I was blessed to have many great mentors who modeled resilience in their way of managing their professional and personal lives.

Attachment Theories

As I explored the topic of resilience, I became more interested in the factors that occur very early in one's life. In my education as a physician, I completed a pediatric residency and practiced general pediatrics in the U.S. Air Force for 2 years before I completed my allergy fellowship. I have long been interested in infant and child normal development. When I read about Bowlby's attachment theories and the types of attachment patterns as developed by Ainsworth, it made sense to me that one's attachment pattern will usually dictate the characteristics of one's pattern of relating as an adult. As psychiatrist and neuroscientist Amir Levine and psychologist Rachel Heller (2010) stated, "adults show patterns of attachment to their romantic partners similar to the patterns of attachment of children with their parents" (p. 7).

Looking back on my early life with an understanding gained from my individual therapy, I am convinced that I have an insecure ambivalent or anxious attachment. My parents' lives were influenced by the Great Depression. Shortly after their marriage, my father was in the Navy during WWII, flying on a B-24 in combat in the Pacific Theatre. My mother remained with her parents while my dad was overseas. Mom was always an anxious woman and perhaps depressed. My father was overseas for the first 2 years of my life; therefore, my primary attachment was to my overwrought mother whose attention to me was probably inconsistent.

> Attachment theorists propose that a child develops an attachment bond with a primary caregiver (attachment figure) based on generalization of this caregiver's daily reactions to the child's proximity—and comfort-seeking behaviors. From these reactions, the child develops internal working models of the attachment relationship. . . .
>
> . . . Children of mothers who were unpredictable in their sensitivity [toward their children] exaggerated their expressions of distress and were never fully

> comforted, to the detriment of exploration: these children were classified as *insecure ambivalent.* (Bureau, Martin, & Lyons-Ruth, 2010, p. 49)

Through my personal therapy, my studies at Pacifica Graduate Institute, and since my mother's death, I can see the enmeshment that I had with her. As a child and an adult, I could always read her moods. This aided my medical career in that I could have an extra sense of the patient's affect or mood. It affected my marriage in that intimacy scared me. This hyperalertness to my mother's moods and my fear of intimacy are characteristics of insecure ambivalent (anxious) attachment disorder (Graham, 2013).

Relating attachment behavior to resilience, Graham (2013) wrote,

> Researchers know that the coping styles we learn from attachment behaviors stabilize in our neural circuitry by eighteen months of age continue to operate well into adulthood. . . . The hippocampus does not fully mature until we're about two and a half years old. . . . At age two to three, we develop the capacity to process our experiences both consciously and verbally, thus enormously expanding our options for learning and resilience. (p. 38)

Our early attachment experiences are thus preverbal, and, according to Graham, our memory of them is not conscious but rather *implicit*. She explained,

> Implicit memories have no time stamp. All the body sensations, emotions, and even views and beliefs about ourselves and our capacities encoded from the past event are vividly present, with *no* awareness that what we're experiencing right now is a memory. . . . The coping styles we learn from attachment behaviors stabilize in our neural circuits by eighteen months of age and continue to operate well into adulthood. (pp. 37-38)

Our higher brains, said Graham, are not the main location of this memory storage. She noted that "neuroscientists have discovered that about 80% of the neural instructions for behavior are recorded in implicit memory, outside of our conscious awareness" (p. 36).

Genetics play a role in how one reacts to early childhood experiences of one's environment, including attachment. Genes are inherited, but how they are expressed is a function of one's internal and external environment, or epigenetics. "It is now thought

that a complex interplay of genetic inheritance and environmental experience, mediated by epigenetic processes, shapes the brain from womb to adulthood" (Fine & Sung, 2014, p. 521).

An intricate and complicated dance occurs from birth on, as the infant and mother bond to each other through eye contact, nursing or feeding, touch and feel, and tone of voice. As the infant grows and matures, the neural pathways and the endocrine system mature. If there is hidden trauma, the infant will respond in a stress mode and adjust to the mother, caregiver, or environment with an insecure attachment. Insecure attachments tend to endure for a lifetime unless there is a correcting action, such as through a healthy, supportive relationship or through psychotherapy. Our genetics, epigenetics, neuroplasticity, neural pathways, stress response (of the HPA axis system) involving epinephrine and cortisol, and the autonomic nervous system all play a role in our development and ultimately in our homeostasis (Bureau et al., 2010, pp. 48-56). It is not a surprise that with my insecure ambivalent or anxious attachment, I was being treated for hypertension and dysthymia by the time I was 50 years old.

Developmental Psychological Growth Stages

As discussed in the literature review, Erikson identified eight stages of psychosocial development. With my insecure anxious attachment, it seems that I may have never fully resolved the crisis of the first stage, trust versus mistrust. The following passage indicated the particular strength that one develops when successfully navigating this stage:

> *Hope, fidelity,* and *care* . . . are among the psychosocial strengths that emerge from the struggles of syntonic and dystonic tendencies at three crucial stages of life: hope from the antithesis of *basic trust* vs. *basic mistrust* in infancy; fidelity

> from that of *identity* vs. *identity confusion* in adolescence; and care from *generativity* vs. *self absorption* in adulthood. (Erikson & Erikson, 1997, p. 55)

Fortunately, I have been blessed with a wife of 44 years, whom I trust completely. I sometimes have trouble trusting others and trusting my own judgment or motives. Physicians are very competitive creatures. I always felt that my medical partners in my practice never ceased their competiveness with each other or with me, or I with them, because I was the founder and the oldest partner. It was easier being married than having medical partners.

I am generally an optimist, but in my adult years, I have had two episodes that challenged my optimism and sense of trust. At 40 years of age, my business account was embezzled by my office manager. My wife and I considered bankruptcy, but we decided that we could work our way out of it. I could never quite trust my administrative team after that and developed a strong oversight of the business aspects after the embezzlement. The second episode was contracting bladder cancer at age 58. I needed second medical opinions, and it took me some time to have confidence in my urologist without second guessing him. Throughout these two challenging situations, my wife was always there for me, for us. We were a team. In both cases, my sense of trust was challenged, but my wife compensated with her confidence in me and our business and medical teams, and I learned from her example. I can look back and see in these episodes the transformation of my ability to trust myself and others. Confronting the embezzlement and bladder cancer were rites of passage for me.

Rites of Passage

Much earlier, at the age of 14, two other events helped shaped my life. The first was the aforementioned bicycle accident that involved a hospitalization, and from that

experience, I decided, or rather *felt* called to become a doctor. I thought, *If I could do what that doctor did for me, what more noble purpose in life could I have than to care for others?* Medical school was certainly a rite of passage. It was the hardest 4 years of my life. I had never worked so hard to become average. Medical school taught me humility in that I was no longer the smartest kid in the class. Medical training was a lesson in delayed gratification, but at the same time, I held onto the pride that I was following my calling.

Later in my 14th year, I was sexually molested by a minister whom I had trusted. Compared to other stories of sexual abuse, mine is minor; however, that trauma has stayed with me all of my life. Only now, in my personal therapy, am I understanding my trauma and shame with regard to this incident. I can forgive, but I cannot forget. I lost my innocence then, and my childhood ended.

I have come to understand how these two events have determined my life course. I have fulfilled my calling; however, my feelings of not being good enough, due to my insecure attachment pattern, and shame over the sexual molestation have driven me to overcompensate in all areas of my life but particularly in my medical career, with a price for my family in terms of my intimacy with them. There have many other rites of passage, and with each one, I have felt the journey as the "physical crossing of that river" that Bly (1990, p. 100) described as a rite of passage from boyhood to maturity.

Adverse Childhood Experiences

As part of my counseling psychology training, I am working in a clinical setting seeing teenagers and families with a variety of mental illnesses and challenges. During this clinical practicum, I have become aware of the research on adverse childhood

experiences conducted by Felitti and others (Anda et al., 2006; Edwards et al, 2004; Felitti & Anda, 2010; Felitti et al., 1998; Phoenix Children's Hospital, 2014; Staten, 2013), as discussed in Chapter II. Their findings complemented my research on attachment theory. Many adverse childhood experiences can occur in the preverbal stage or before memory is present with the development of the hippocampus and other memory structures of the brain. Regarding attachment in these instances, "the cumulative history of care is a more powerful predictor of outcome than quality of attachment alone" (Sroufe et al., as cited in Szajnberg, Goldenburg, & Harari, 2010, p. 36). The fact is that when, for instance, "children are beaten by their caretakers, the children suffer, perhaps in varying ways but throughout development. Yet some human factors can alleviate that misery: mother's childhood or contemporary support" (Szajnberg et al., 2010, p. 36). Such adverse childhood experiences or traumas lead to a stress response with stimulation of the HPA axis, elevations of epinephrine and cortisol, stimulation of the autonomic system, and changes in the developing neuroplasticity of the brain. Unfortunately, "prolonged exposure to high levels of glucocorticoids has damaging effects on many systems of the body, including the central nervous system" (Richter-Levin & Jacobson-Pick, 2010, p. 95).

The patients and families that I see in my clinical practicum are at the poverty level in many ways. They all have experienced some forms of trauma, and their ACE scores are generally 4 or more. The ACE scoring documents trauma in the first 17 years of life. Please refer to Appendix B for the ACE test. The subject answers each of the 10 questions, one point is added for each positive answer, and then the scores are totaled. All

of my adult patients seem to be hypervigilant and vulnerable to physical problems. As clinical psychologist Julian Ford (2010) stated,

> early life traumatization is associated with adult vulnerability not only to psychiatric and behavioral morbidity, but also to chronic stress-related gastrointestinal, metabolic, cardiovascular, and immunological illness. . . . The more consistent finding is that the earlier the onset of maltreatment the greater the morbidity or risk in late childhood or adolescence or in adulthood. (p. 69)

Adults who survive adverse childhood experiences (trauma) are at risk for PTSD, anxiety, depression and suicidality, addiction, personality disorders, antisocial or violent behavior, serious mental illness, sexual disorders (p. 69). Ford added that "abuse survivors also are at risk for medical illness, overutilization of emergency and specialty medical care and underutilization of routine health care, impaired work functioning and parenting, and traumatic re-victimization in adolescence and adulthood" (p. 69).

The Regional Child Abuse Prevention Councils (2011), in its PowerPoint presentation titled *Strong Communities Raise Strong Kid*, included a seven-stage pyramid of increasing morbidity leading to early death (Slide 14). The base-level stage is adverse childhood experiences, proceeding to disrupted neurodevelopment; social, emotional, and cognitive impairment; adoption of health-risk behaviors; diseases, disability and social problems; and, ultimately, early death**.**

From my experience as a physician, the patients I see in my practicum with histories of ACEs are complicated, time-consuming, often have multiple diagnoses, have seen many doctors, and often are dependent personalities. They are frequently anxious and depressed. Most have received mental health services. They are usually frustrated and angry and often seem to have little insight into their problems. It is easy to get caught up in their transference (the doctor is the savior) and my countertransference (I cannot

make you well, and that diminishes my savior complex). Physicians are taught to develop one diagnosis that explains the patient's symptoms, if possible; however, these types of patients often do not fit into a neat, single explanation. This can cause the physician stress, as the physician strives for perfection.

The Physician's Type A Personality

Cardiologists Meyer Friedman and Ray Rosenman developed their personality theory base on how people respond to stress. They observed that patients who were very competitive and self-critical had a higher incidence of cardiovascular disease; they labeled these patients *Type A,* and those that were more relaxed were labeled as *Type B* (McLeod, 2011). Physicians are perfectionists and generally Type A personalities, as discussed by Sotile and Sotile (2002, pp. 62-66). Medicine is not a game where everyone receives a trophy for showing up. Physicians are competitive with one another, and support for one another is rare. Medicine is not a team sport. Admitting a need or perceived shortcoming goes against our grain. Often the physician does not ask for help until the problem is obvious. Sotile and Sotile presented a "paradigm for developing coping problems" (p. 66, figure 3.2), beginning with "repressing your own needs" (p. 66). Early intervention is the key to preventing the mental and physical consequences of the stress this repression causes. Sotile and Sotile (2002) devoted a chapter of their book, *The Resilient Physician*, to self-assessment, which is helpful for pointing out early warning signs of burnout or stress (pp. 31-46). In summary, effective emotional management is essential to resilience.

Using Sotile and Sotile's (2002) suggested assessment, I discerned my particular warning signs for burnout in the five categories of symptoms the authors outlined (pp. 33-34):

- Physical symptoms: insomnia, fatigue, and headaches.
- Emotional symptoms: anxiety, anger, and manic thoughts (too much on my mind). Thinking symptoms: worry, difficulty concentrating, and perfectionism.
- Behavioral symptoms: rushing, overworking, and losing sleep from trying to do too much.
- Interpersonal symptoms: competitiveness, over controlling, and aggressiveness

Sotile and Sotile discussed 10 "resilience factors: realistic optimism, facing fear, moral compass, religion and spirituality, social support, resilient role models, physical fitness, brain fitness, cognitive and emotional flexibility, and meaning and purpose" (p. 13). With a focus on developing and maintaining resilience in order to heal trauma and improve quality of life, The Sotile Center for Resilience (http://www.sotile.com/), a comprehensive wellness center for individuals and families, offers clinical and counseling services, speakers, links to physician and medical organizations, and leadership development.

Jungian Concepts as Applied to Resilience

A career in medicine has its light and dark sides. The shadow of medicine lies in its abuse of power. Guggenbühl-Craig (1971) hit on an important concern for me with his perspective on the abuse of power in the helping professions. As a physician, I was used to using my power consciously and unconsciously. I knew that when I saw a patient, just the title of "Doctor" or having "MD" behind my name granted me a certain degree of prestige and power. I could use that power in a subtle way by simply writing a prescription or not so subtly by using my medical knowledge to convince a patient about

a diagnosis or treatment plan. I am certainly guilty of using my power unconsciously in the sense of being the high priest. As Guggenbühl-Craig said,

> We try to enforce that which we consider "right" for people. And we often do this even when our help is rejected by those concerned. In our own way we frequently force a certain view of life upon others whether they agree to it or not. (p. 21)

I have also been the charlatan. At times, I ordered more lab tests or procedures to be certain of my treatment or diagnosis, which seems valid, but the problem is that with declining reimbursements, a physician is tempted to do this for financial gain. In addition, with the risk of being sued, the physician wants to cover every possibility of error. I was sued for the first time in the 35th year of my 41-year career. A malpractice suit can change forever a physician's style of practice and anxiety level with each patient seen. The physician wonders, "Did I do the right thing? Did I do enough to cover my backside?" The patient's concerns become lost in this dynamic, as the high priest–charlatan complex is constellated.

In my medical career, I practiced according to the traditional the medical model. Now, in the field of counseling psychology, I have attempted to shift into the person-centered model as described by Mark Ragins (2002), a leading psychiatrist in the recovery movement in mental health care. When I am frustrated or stressed with a patient, however, I am likely to revert to my medical model of power and take the road of the high priest. This tactic often fails.

My life in medicine has been full of challenges that have prompted me to work continually on developing resilience. I have had wonderful mentors in my pediatric residency and in the U.S. Air Force. Although I did not realize it until after my father

died recently, in my adult years, my father was my mentor also. He was not a physician, but I tried to model my life after his values and act accordingly.

In this journey, I have been amazed by the synchronicity of events in my life. *Synchronicity* is a term coined by Jung to refer "to events that coincide in time and space but can also be seen to have meaningful psychological connections" (Samuels, Shorter, & Plaut, 1986, p. 146). In 2002, I was consumed by my medical career, my wife and I were experiencing empty-nest syndrome, and we had become strangers to each other in the process of raising children and maintaining dual careers. That year, I was diagnosed with bladder cancer on Christmas Eve. Regarding one's health, there is no scarier word than *cancer*, even to a physician. I knew before the diagnosis that something had to give. I had to get off the roller-coaster but did not know how. As soon as I received the diagnosis, I knew my whole orientation to my life and work would change. I also find it curious that my decision to enter a medical career and my decision to retire from the high pressure of medicine and as a managing partner in a medical group practice were both associated with bicycle accidents. This feels like synchronicity to me.

The greatest blessing and gift in terms of my ability to develop resilience in the face of the challenges, trials, and tribulations in my life has been the transcendent function: "the capacity to hold tensions and let a meaning emerge without prematurely deciding whether a situation is good or bad" (Young-Eisendrath, 1996, p. 150). Another way of conceiving of transcendent function is as a practice whereby we create "a 'space' in which we wait for meaning to emerge rather than impose our own discontent" (Young-Eisendrath, 1996, p. 152). In my view, when trying to comprehend the opposites, they

may be seen as poles of light and darkness on a gray spectrum, but when cognizant of the transcendent function, one sees a rainbow.

One of the great transitions and rite of passage is the death of one's parents and a sibling, which I experienced in 2011 and 2012, respectively. The polar opposites of life and death are hard to reconcile. At first, one is consumed with one's own grief, without perspective or a container for the pain. In time, however, such losses prove to be opportunities to value family, love, and the present moment, and accept one's own mortality. There is a new clarity to life as well as meaning and purpose.

Clinical Applications of the Research

The purpose of this thesis was to identify the factors of resilience that influence the lives of physicians. Many individuals may have the critical resilience factors that were discussed but still experience times when they are not enough. Infant attachment patterns and adverse childhood experiences (trauma) have an effect on resilience, and physicians are not immune to these effects.

Southwick and Charney (2012) discussed 10 resilience factors: "realistic optimism, facing fear, moral compass, religion and spirituality, social support, resilient role models, physical fitness, brain fitness, cognitive and emotional flexibility, and meaning and purpose" (p. 13). As resilience gains popularity as a concept in the mental and physical health fields, resilience education and training is increasingly available. In addition to the previously detailed resources and services offered by the Sotile Center for Resilience, Dartmouth University lists the "Geisel Resilience Curriculum Resources" on its website (http://sites.dartmouth.edu/geisel-resilience-curriculum-resources/life), which provides 16 articles, seven books, and two PowerPoint presentations.

Compounding the resilience issue is the aging population that will demand increased care and the shortage of physicians to provide that care. This care will require of physicians to "juggle busy careers, hands-on participation in family life, and appropriate self-care" (Sotile & Sotile, 1994, p. 23). Self-care needs to be accomplished through effective emotional management (EEM) that is a critical component of resilience.

As reported in this thesis, I have had my moments of burnout in my medical career, my marriage, and my personal life. Couples and individual therapy has been most helpful to restore my sense of resilience. One of the concepts at the heart of resilience is that life is not a marathon, but a series of sprints and recoveries, as stated by performance psychologist Jim Loehr and journalist Tony Schwartz (2003), in their book, *The Power of Full Engagement,* subtitled *Managing Energy, Not Time, Is the Key to High Performance and Personal Renewal*. I have had to learn that as I get older, my sprints have to be shorter and my recoveries longer and with more quality.

In communication with Vincent Felitti, I asked him whether ACE studies have been done with physicians, and he replied that he was unaware of any published studies (e-mail communication, September 28, 2014). My literature search did not reveal such studies. Given this lack of focus on ACEs in the lives of physicians and based on the research for this thesis, I propose that a pilot program be established whereby entering medical students take the ACE test. Those with a score of 4 or more would be given the opportunity for counseling. The medical students would be monitored throughout medical school, postgraduate training, and their careers for any emotional and or physical problems that might arise. In order to have completed medical school and beyond, the logical assumption would be that physicians are resilient, but they may not be. This

program, which could be adopted by medical schools, would help in understanding physicians' issues and realizing that, perhaps, they are no different than the rest of us. They are not Gods.

In addition, I would have the students take the Adult Attachment Inventory (AAI) to "capture the childhood attachment experiences of adults" (Brisch, 2012, p. 42). The purpose would be "to explore whether the parents' childhood experiences of attachment contributed to their children's attachment quality" (Brisch, 2012, p. 42). Brisch (2012) reported that Mary Main, one of Ainsworth's students, "discovered that classifications of the parental narratives about attachment in childhood could be predicted from their infants' Strange Situation classifications 5 years earlier" (p. 42). A later study showed a strong correlation between high ACE scores and AAI-detected problems with "unresolved mourning regarding past loss or trauma and discordant states of mind" (Murphy et. al, 2014, p. 224).

The meaning and purpose of my life now is to mentor the generations behind me and be as genuine and real as I can in every encounter with others, especially with my family. Resilience is about accepting the challenge, seeing it as an opportunity, and going on the hero's journey. When one does, one emerges on the other side, changed and transformed; in the alchemical sense, lead is changed into gold. As an old English proverb states, "just when the caterpillar thought the world was over, it became a butterfly."

Chapter IV
Summary and Conclusions

Summary

"According to Masten and Coatsworth (1998), resilience is an inference about someone's life based on a past or current adversity and a pattern of positive adaptation. [Therefore, resilience] is a description of a pattern, not a personality trait" (Hernandez, Gangsei, & Engstrom, 2007, p. 231). In seeking to understand the components of a pattern of resilience, this current study found that resilience research has identified many factors. These resilience factors were discussed herein, but particular focus was placed on two factors that are beyond one's control.

The two areas of interest in this study with regard to the development of resilience were attachment patterns with the primary caregiver, usually the mother, and ACEs, or trauma. Attachment patterns occur pre-verbally and pre-memory but so can ACEs. ACE studies have shown the long-term effects of trauma that occurred before 18 years of age.

Resilience is mediated by internal factors (genetics and the epigenetic effect on genes and developing neural circuitry) as well as external factors such as one's environment; attachment patterns; and the severity, frequency, duration, and developmental stage when adversity (or trauma) occurs in one's life. These influences can have epigenetic effects as well. The ability to bounce back from adversity, however, can be enhanced through education, training, mentors, social supports, psychopharmacology, and psychotherapy.

My own personal and professional lives were discussed in relation to resilience. Analysis of my attachment pattern to my mother is speculated as she is deceased. My childhood trauma and its effect on my life are examined.

Clinical Implications and Ideas for Further Research

One would expect physicians to have a high degree of resilience given their extensive education, training, and experience of dealing with stress in their medical careers. This thesis proposes that insecure attachment patterns and high ACE scores could indicate a decrease in resilience in physician lives. A longitudinal study of physicians over the course of their early education and through their careers is necessary to investigate further how insecure attachment patterns and high ACE scores impact their resilience, morbidity, and life expectancy. Based on the findings of such a study, effective intervention and educational strategies could potentially be developed and employed. The integration of the medical and recovery models is recommended for these strategies.

A Depth Psychological Perspective on the Research

Given the power that most physicians have in our society, it is tempting to go to the shadow side of power as manifested by the high priest and charlatan. In addition, the physician is susceptible to the healer-patient archetype and the wounded healer archetype. Most physicians must continue to search for meaning and purpose in their personal and professional lives. Each of us has a myth that we live out, consciously and unconsciously. The physician must look internally for his or her source of resilience as well as externally in developing strong supportive social relationships and networks. One study reported that

> childhood maltreatment is known to be associated with a variety of negative outcomes. However, the effects of maltreatment can be reduced by a variety of psychosocial interventions, such as social support, which seem to help to moderate the complex genetic and environmental risk factors for psychopathology. (Ozbay et al., 2010, p. 189)

The persona, power, prestige, and money will not carry one through the stress physicians experience in their personal and professional lives. Self-examination through individual therapy and analysis is one way to engage one's deeper sources of strength. Physicians do not enter the most productive part of their career until the second half of life, which is when they must ask the "the critical question" Hollis (2005) posed: "*What am I called to serve?*" The answer to this question will provide physicians with meaning and purpose.

As a physician, I am excited to see the psychology of attachment, adverse childhood experiences, and resilience beginning to join with neurobiology and medicine to understand the process of trauma experiences. This new alliance between disciplines requires the psychologist to learn science and the physician to learn psychology in order to speak the same language. A century ago, Jung was correct in approaching psychiatry and psychology with as much of a scientific investigation as possible. His depth psychological perspective, however, allows seeing deeper into the mind and the soul. I am sure that if he were alive today, he would be at the forefront of the polar opposites of psychology and science, experiencing the transcendent function. That challenge is left to those of us concerned with the quality of resilience in physicians, who impact our lives daily.

Appendix A
Erikson's Model of Stages of Psychosocial Development

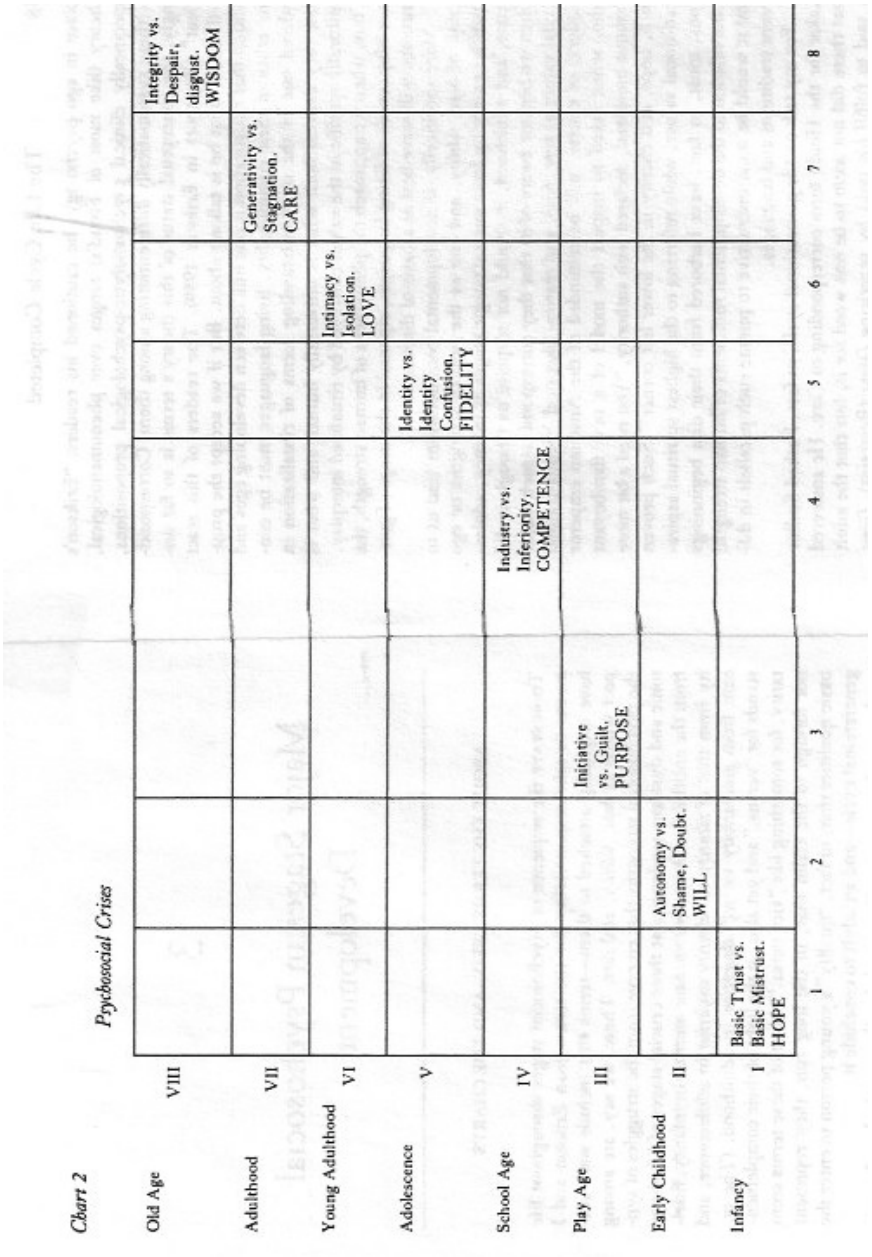
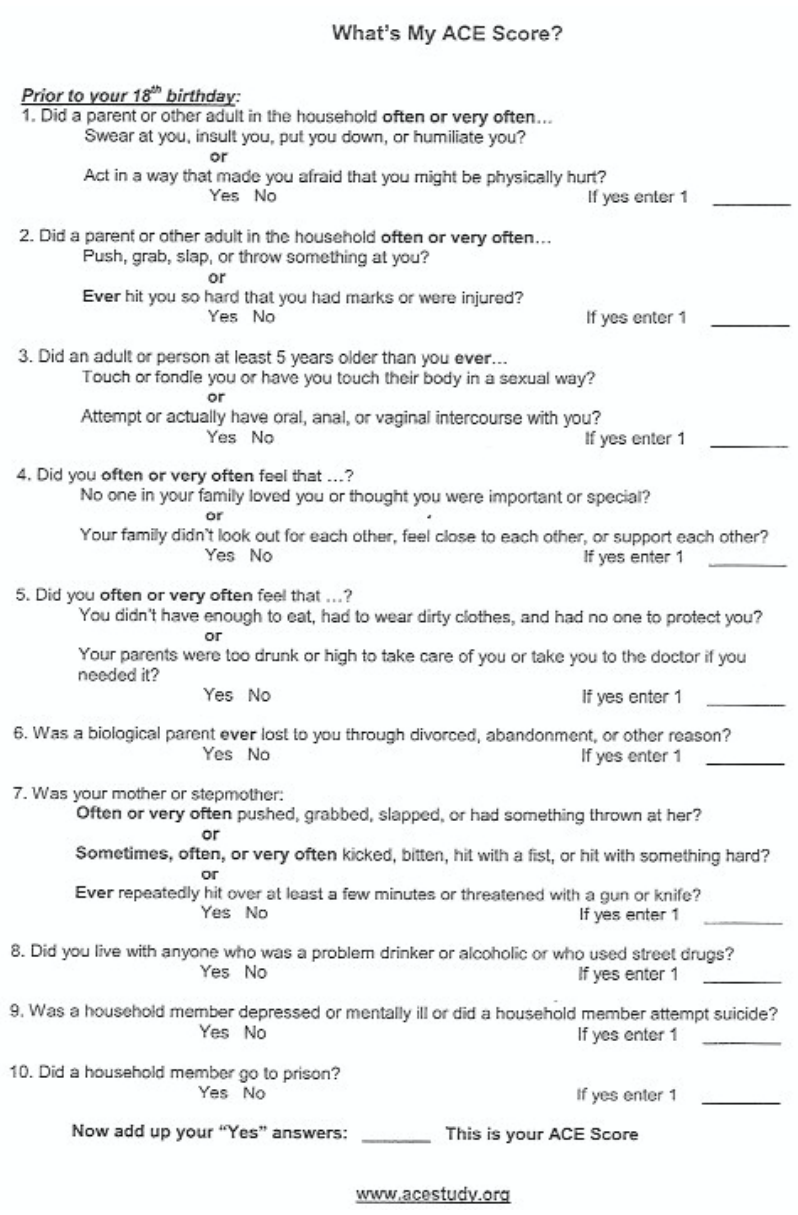


Figure 1. Stages of Psychosocial Development. From *The Life Cycle Completed,* by E. Erikson & J. M. Erikson, 1997, pp. 56-57. Copyright 1997, J. M. Erikson. Reprinted with permission.

Appendix B
Adverse Childhood Experiences (ACE) Test



What's My ACE Score?

Prior to your 18th birthday:

1. Did a parent or other adult in the household **often or very often**…
   Swear at you, insult you, put you down, or humiliate you?
   or
   Act in a way that made you afraid that you might be physically hurt?
   Yes No If yes enter 1 _____

2. Did a parent or other adult in the household **often or very often**…
   Push, grab, slap, or throw something at you?
   or
   Ever hit you so hard that you had marks or were injured?
   Yes No If yes enter 1 _____

3. Did an adult or person at least 5 years older than you **ever**…
   Touch or fondle you or have you touch their body in a sexual way?
   or
   Attempt or actually have oral, anal, or vaginal intercourse with you?
   Yes No If yes enter 1 _____

4. Did you **often or very often** feel that …?
   No one in your family loved you or thought you were important or special?
   or
   Your family didn't look out for each other, feel close to each other, or support each other?
   Yes No If yes enter 1 _____

5. Did you **often or very often** feel that …?
   You didn't have enough to eat, had to wear dirty clothes, and had no one to protect you?
   or
   Your parents were too drunk or high to take care of you or take you to the doctor if you needed it?
   Yes No If yes enter 1 _____

6. Was a biological parent **ever** lost to you through divorced, abandonment, or other reason?
   Yes No If yes enter 1 _____

7. Was your mother or stepmother:
   Often or very often pushed, grabbed, slapped, or had something thrown at her?
   or
   Sometimes, often, or very often kicked, bitten, hit with a fist, or hit with something hard?
   or
   Ever repeatedly hit over at least a few minutes or threatened with a gun or knife?
   Yes No If yes enter 1 _____

8. Did you live with anyone who was a problem drinker or alcoholic or who used street drugs?
   Yes No If yes enter 1 _____

9. Was a household member depressed or mentally ill or did a household member attempt suicide?
   Yes No If yes enter 1 _____

10. Did a household member go to prison?
    Yes No If yes enter 1 _____

Now add up your "Yes" answers: _____ This is your ACE Score

www.acestudy.org

Figure 2. Adverse Childhood Experiences (ACE) Test. From *Overcoming Adverse Childhood Experiences: Creating Hope for a Healthier Arizona*, brochure published by Phoenix Children's Hospital, n.d. Reprinted with permission.

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