

Resilience in Youth: A Literature Review

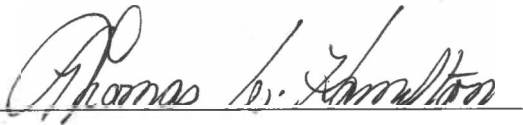

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### **Abstract**

Intrigued by the individuals among us who have risen above adverse circumstances and experiences to lead contented lives, this thesis is an attempt to unravel the complexities of resilience, particularly as it relates to youth. This thesis explores the resilience phenomenon through an extensive review of the literature, which includes both pioneering work and current studies and findings within the field. Included in this thesis are avenues for future studies as well as suggested applications. In addition specific findings resulting from those studies reviewed are noted. Among the findings, investigators have determined there to be certain protective factors, both biologically and environmentally speaking, which interact to produce resilient manifestations over the course of one's life. Research also suggests a link between gender and resilience. Further, investigators propose that resilience is not simply an endowed trait but rather an interaction between nature and nurture that can be influenced by one's will and desire along with a sufficient availability of resources. Resilience is a process which one can self-right like a capsized ship which has been overturned and is capable of righting itself; a process which all humanity can embrace given the opportunity. Resilience transcends restraints placed on individuals through race, social status, past experiences, and geography and plays on the common strings of humanity such as love, connectedness, and a sense of meaning and purpose.

## Introduction

Resilience is a much desired trait which influences some individuals, against all odds, to rise above adverse circumstances and even become some of the strongest voices among us. As a comprehensive literature review, this thesis will be used as an avenue to explore the phenomenon of resilience particularly as it is manifested in youth. The thesis will look at the historical roots of resilience studies, commonalities found among those determined to be resilient, the impact of nature vs. nurture, and suggest practical applications for such knowledge.

Through a systematic compilation of past and current resilience studies implications on a personal, communal, and societal level can be made. In gaining an understanding of resilience, one can influence their own future outcomes, impact persons within their sphere of influence, and positively alter current public policy and approach to social injustices. In an ideal world, complete prevention of childhood trauma and maltreatment would be desirable. Unfortunately, completely eliminating adverse childhood experiences for all does not appear to be possible. Therefore, it is important that children are given any and all tools available to counteract the negative effects of trauma and maltreatment. Within this context, resilience can be channeled as a powerful instrument which taps into the power of human plasticity. Implication of such tools is a lofty humanitarian goal yet one which sparks both curiosity and hope within. These tools, in the hands of competent and caring adults, can impact the lives of those children already hurting and children who may face hardships in their future. This would be accomplished by helping to reduce negative impacts of social injustices which children

experience and in turn, positively impact their individual life outcomes and society by improving the chances and development of future generations.

## Background

“Man never made any material as resilient as the human spirit.”

– Bern Williams (as cited in Cook, Gibson, & Deger, 1993, p. 649)

This thesis is driven by the stories of individuals who have triumphed over great adversity. Including: Charlie Chaplin, the icon of the silent film, who grew up as a starving orphan on the streets of London after the death of his alcoholic father and the psychiatric commitment of his mother, yet pulled himself up out of the pit of darkness to become one of the most famous entertainers of all times (Chaplin, 1992). Jeannette Walls, whose memoirs describe a very chaotic, disorganized, and neglectful upbringing and yet she became a noted author, journalist, and motivational speaker (Walls, 2007). Harriet Tubman, arguably one of the nation’s most courageous historical figures, born into slavery who became the operator of the Underground Railroad, a Civil War spy and nurse, a suffragist, and humanitarian (Larson, 2004). The survivor of one of the most extreme cases of child abuse ever to be reported in the state of California, David Pelzer, became a Pulitzer Prize nominee, authored six bestselling novels and is currently a nationally acclaimed inspirational speaker (Pelzer, 1995; Pelzer 1997; Pelzer 2000). Ray Charles, the world-renowned soul musician, who overcame: poverty, blindness, the drowning of his younger brother, the death of his parents, and racism to become one of the most inspirational people of his time (Charles & Ritz, 1978).

These are just a few of the famous names which embody the essence of resilience, but there are many more among us whose stories are never publicized and whose triumphs go unnoted. These life narratives seem to defy the natural order of life and

highlight the essence of resilience bringing meaning to the sentiments of Hauser, Allen and Golden (2006) when they say, "Happy Endings are most intriguing when they are hard won" (p. 1). Through the careful analysis of these life stories and the stories of those resilient individuals who have personally touched our lives in one manner or another, commonalities may be found, the role of nature and nurture are better understood and the lives of future generations are improved.

### Brief Historical Overview

“It is something of a paradox that a nation which has exulted in its rapid expansion and its scientific-technological achievements should have developed in its studies of childhood so vast a ‘problem’ literature” – Lois B. Murphy (1962, p. 2)

According to Hauser, Allen and Golden, the study of resilience, successful adaptation in the face of danger, began serendipitously through an observation made by Norman Garmezy in the 1950's (2006). Garmezy, the psychologist widely regarded as the founder of resilience studies, noticed that while some of his schizophrenic patients were hospitalized for many years some recovered after only brief hospitalizations. According to an interview with Garmezy, this led him to wonder what might be causing the notable difference in terms of the length of hospitalization among his schizophrenic patients. The two groups, defined by a short or long length of stay, were given the same classification, but were manifestly different in their work history, marital status, and participation of family activities. The good confident work histories, family patterns and the like of the short stay schizophrenic patients raised a critical question regarding a different adaptation in the presence of uncommon stress. This observation became very important to Garmezy and his collaborator and mentor, Elliot Rodnick, and it was in trying to understand this phenomenon that led to their study of resilience. Wanting to find out more about these different adaptations Garmezy and Rodnick chose to branch out and study a group of Minnesota school children who seemed to be very adaptive despite living in highly stressed environments (Glantz & Johnson, 1999). Curtailing on his original work with the schizophrenic patients and the Minnesota school children, Garmezy launched longitudinal studies, some spanning over twenty years, which focused

on areas of competence observed in at risk children (Hauser et al., 2006).

Working under Garnezy, Lois B. Murphy, a child psychologist and resilience pioneer, also became intrigued by the ability of some youth to successfully adapt despite adverse circumstances and claimed it would be shortsighted to look only at children's problems and so sacrifice insight into their success. In Murphy's opinion, the deficit model, which was the predominant approach at that time, led to an insufficiency of direct studies involving the methods for correcting, bypassing, or overcoming threats. Murphy believed that through shifting the energy of research from a deficit model to a success model that lives could begin to be altered for the better (Murphy, 1962).

Murphy's opinion, shared by others such as Emmy E. Werner, Ruth S. Smith, Anne Masten, Douglas Coatsworth, and Norman Garnezy led to a paradigm shift from a deficit model to a success model. Werner and Smith noted that the error of a deficit model is that it creates the impression that a poor developmental outcome is inevitable if an individual is exposed to perinatal trauma, poverty, parental psychopathology, or chronic family discord, since it examines only the lives of the "casualties," not the lives of the "survivors" (Werner & Smith, 2001, p. 2). Like Werner and Smith, the resilience pioneers believed successful adaptation which manifested in some who had experienced great adversity was deserving of scientific research. Further, studies of the "survivors" could carry heavy implications in regards to human development over time (Werner & Smith, 2001). Therefore within the study of risk, resiliency studies arose as pioneering investigators realized that there were children flourishing in the midst of adversity (Garnezy, 1971; Murphy, 1974; Werner and Smith, 1982; Masten & Coatsworth, 1998; Glantz & Johnson, 1999).

During the 1970's, the shift from a deficit model to a success model began to take shape as investigators of child development and psychologists pushed for a movement away from early-childhood determinism (the belief that early-childhood experience is the primary determinant of an individual's life course). The shift led to the current broadly accepted view that many developmental paths can arise from adversity, and that their endpoints are incredibly varied (Hauser et al., 2006). Furthermore, the idea of self-righting, or the ability to turn a spirit capsized by adverse experiences in such a direction that one can produce positive outcomes just as a ship is designed to right itself when capsized, began to gain momentum (Werner & Smith, 1992). Perspectives have adjusted to this more dynamic thinking, largely in part to a handful of longitudinal studies in the United States and Europe, and particularly through the Kauai study of Werner and Smith (Cederblad, 1996; Clausen, 1993; Elder, 1999; Vaillant, 1997; Werner, Bierman, & French, 1971). With the shift in paradigms and the expansion of scientific research it became increasingly important to define resilience and terms related to resilience in order to gain validity from studies and allow for more qualitative and reproducible scientific results.

The definition of resilience, although continually being refined and expanded as insight is gained, began its solidification with the psychiatrist, George Vaillant, who studied adaptation for many years. Vaillant (1993) felt the then popular terms being loosely used by media such as: "supernormal children," "invulnerable," and "invincible" to describe youth who had overcome horrific circumstances, were catchy and inspiring but did little to accurately define the intricacies of resilient adaptation. Vaillant's view was that children do not "come" resilient but rather "become" resilient, after experiencing

suffering and hurt (Vaillant, 1993). With this Vaillant claimed, it is not the illusory invulnerability of resilient children that should command attention and respect, but rather their powers to self- heal. Further, these powers vary with circumstances; people's styles of adaptation change and evolve over their lifetimes (Vaillant, 1993).

Vaillant's notion of adaptation over time rather than an endowed trait was shared by many other investigators and professionals and drawing on the idea of fluid traits, the term resiliency was changed to resilience, in the 1970's, in order to preserve the conceptual aspects versus the earlier implication of a permanent endowment or a protective shield. It has become widely accepted within the field of psychology and child development that there is no universally "resilient personality" (Hauser et al., 2006). That is, there is no one attribute that is uniform among all resilient people. Resiliency is a successful combination of inherited traits and available environmental resources. Ann S. Masten, director of the longitudinal study, Project Competence, and her colleague, Jennifer L. Powell state it in this manner, "resilience is not a trait of an individual; rather individuals manifest resilience in their behaviors or life patterns" (Masten & Powell, 1999). Masten notes, "Resilience appears to be a common phenomenon that results in most cases from the operation of basic human adaptational systems" (Masten, 2001).

Project Competence was instrumental in changing resilience from a static term, consisting of one trait, to one that included several manifested adaptations. According to Masten and Powell (2003), resilience is not confined to one trait yet is defined by "patterns of positive adaptation in the context of significant risk or adversity" (p.4). Masten and Powell (2003) further added that resilience is an inference about a person's life that requires two fundamental judgments. The first judgment is paraphrased as the

belief that a person is “doing ok” psychosocially speaking (Masten & Coatsworth, 1998). The concept of “doing ok,” does not imply outstanding achievements but instead refers to behavior within or above the expected average range for a normative cohort in developmental tasks which are salient for people of a given age, society or context, and historical time (Masten, 1999). Werner and Smith (2001) in their Kauai follow up study produced the following areas of psychosocial development which one could quantifiably measure if an individual was “successfully coping” or displaying normative behaviors in adulthood. The first measure, according to Werner and Smith (2001), relates to work. “The individual is employed and/or is enrolled in school; is (very) satisfied with work and/or school achievements” (Werner & Smith, 2001, p. 36). Second relates to the individual’s relationship with a spouse/mate and is measured as: “The individual is married or in a long-term committed relationship; is (very) satisfied with partner and reports little or no conflict; no record of desertion, divorce, or spouse abuse in court files” (Werner & Smith, 2001, p. 36). The next measurement involves their relationship with children as manifested by: “The individual evaluates children (very) positively; is (very) satisfied with parental role; no record of child abuse or delinquent child support payments in court files” (Werner & Smith, 2001, p. 36). Additionally, Werner and Smith reviewed the individual’s relationship with parents and siblings through the following criteria: “The individual evaluates father, mother, and siblings positively; reports little or no conflict with them” (Werner & Smith, 2001, p. 36). The next quantifiably measurable behavior deals with relationships with peers. It is measured with the following standard: “The individual has several close friends who provide emotional support when needed; is (very) satisfied with the relationship; no record of assault, battery, rape or other criminal

offenses in court files” (Werner & Smith, p. 36-37). Last on the list of measurements was that of self-assessment defined as: “The individual is (very) happy or mostly satisfied with present state of life; reports non dependency on alcohol or drugs; no psychosomatic illnesses; no record of psychiatric disorders in Mental Health Registry” (Werner & Smith, p. 36-37).

The above measurable standards have been used in a number of other studies and although differing slightly depending on the population being observed, they all fall within the normal developmental milestones psychosocially speaking. The second judgment deals with determining that, “the subject is or at one point has had significant risk or adversity to overcome” (Masten & Powell, 2003 p. 4). Resilience, according to Masten and Powel (2003), was thus defined by the intersection of two conditions: serious risk and good outcome.

In order to gain validity and the ability to replicate findings with scientific significance, researchers began striving to define serious risk and good outcomes. The following currently acceptable terms, published by Brooks and Goldstein (2005), are included in this thesis in order to provide a contextual background from which the majority of the current work is being grounded in and in order to shed light on the methodology and outcomes of the studies included in this thesis. Adversity is “the environmental conditions that interfere with or threaten the accomplishment of age-appropriate developmental tasks” (Brooks & Goldstein, 2005, p. 19). It should be noted that the accumulation or number of adverse experiences has been linked to negative outcomes. The implication being that the more adverse experiences a person is exposed to the more likely they are to produce negative outcomes (Felitti, Anda, Nordenberg, et

al., 1998; Masten & Garmezy, 1985, Kraemer et al., 1997). Brooks and Goldstein (2005) defined resilience as, “a pattern of positive adaption in the context of past or present adversity” (p.19). Risk is “an elevated probability of an undesirable outcome” (Brooks & Goldstein, 2005, p. 19) In addition, risk factor refers to, “a measurable characteristic in a group of individuals or their situation that predicts negative outcome on a specific outcome criterion (Brooks & Goldstein, 2005, p.19). Common risk factors include: biological factors of parents, such as schizophrenia, low socioeconomic status, low IQ, community trauma, crime, violence, abuse and maltreatment, and abuse of drugs or alcohol (Masten, 2001; Anda et. al., 2006; Werner & Smith, 1971). Goldstein and Brooks (2005), have defined vulnerability as “individual susceptibility to undesirable outcomes; the diathesis in diathesis-stressors models of psychopathology (p. 19). Protective Factors are seen as the “quality of a person or context or their interaction that predicts better outcomes, particularly in situations of risk of adversity” (Brooks & Goldstein, 2005, p. 19).

Beginning serendipitously in the 1950's with Norman Garmezy, the study of resiliency has grown tremendously in the last sixty years and has gained momentum across multiple disciplines; such as: Human Development, Education, Psychology, Neurology, Medical, Health and Human Services, Judicial, Political, etc. With the framework of resilience studies in place investigators continue to analyze their data sets in such a manner that common themes among the life narratives of resilient individuals gleaned the concept of nature vs. nurture is being explored, and practical applications of resilient components are able to be made.

### Significant Data

*“It is often when wandering through the emotional carnage left by the worst of humankind that we find the best of humanity as well.”—Bruce D. Perry (2006, p.5)*

### Internal & External Protective Factors

Within the study of resilience, there are numerous pioneers and leading professionals, who have produced significant findings regarding the complex subject matter of resilience. Within the last six decades, resilience has become a broad area of study which addresses some commonly shared threads of humanity. According to Werner and Smith (1971), studies of resilience propose that nature has provided powerful protective mechanisms for human development that appear to transcend ethnic, social class, geographical, and historical boundaries. In other words, because of the transcendent nature of resilience and the individualized nature of humans, resilience provides a large breeding ground for studying shared humanity (Werner & Smith, 1971). However, due to the limitations of this thesis, only a handful of the studies will be discussed at length. The studies included in the next few sections were chosen to represent findings which have been replicated or verified as well as some studies which are expressions of newer concepts which have yet to be duplicated or solidified. They summarize many of the main concepts and themes resulting from resilience studies thus far. The studies cover the commonalities found among the resilient, nature verses nurture in the role of resilient manifestations, and practical ways to implement programming based on the data gathered. One of the main ideas emerging from commonalities found within the studies on resilience is the concept of protective factors which include both

inherited biological traits and environmental components which are constantly interplaying with one another.

An American developmental psychologist, Dr. Emmy E. Werner, was one of the first scientists to capitalize on the term resilience in the 1970's. Werner's work is paramount and is still laced throughout current studies and publications in the field. Dr. Werner is best known in her field of child development for her leadership of a forty year longitudinal study of 698 infants from the island of, Kauai, Hawaii. The 698 infants comprised the islands' entire birth cohort for the year 1955 (Werner & Smith, 1971). The original study, published in 1971, was designed to support the notion that children with exposure to reproductive and environmental risk factors experience more problems with delinquency, mental and physical health and family stability than children exposed to fewer risk factors (Werner & Smith, 1971). However, one of the most significant findings surfaced not from the two thirds of the children who fit this hypothesis but with the one in every three children who displayed resilience and developed into caring, competent, and confident adults despite their problematic developmental histories (Werner & Smith, 2001). Following this discovery, Werner and her colleagues were able, through a carefully constructed longitudinal study, to identify a number of protective factors in the lives of the resilient children. These protective factors helped balance out the risk factors during critical periods in their development (Werner & Smith, 2001).

According to Werner and Smith (2001), "successful coping," is achieved through protective factors and mechanisms that buffer or ameliorate a person's reactions to a stressful situation or chronic adversity so that his or her adaptation is more successful

than would be the case if the protective factors were not present. In a follow up study to the 1971 study results, Werner and Smith grouped the protective factors which correlated with adult adaptation at age forty into several (theoretical) constructs called latent variables.

The following are clusters of manifest variables or observable variables that represented characteristics of the individual and short synopses of how they measured these variables. The first latent variable identified by Werner and Smith (2001) is autonomy and social maturity, a cluster of variables that included the Cattell IQ, the Vineland SQ, and a count of adjectives describing the child's positive social orientation. This variable was checked by independent observers during the developmental examinations at age two. The next manifesting variable was scholastic competence, a cluster of variables that included the PMA IQ and scores on a practical problem-solving test (PMA-R) and on the STEP reading test at age ten (Werner & Smith, 2001). Also observed was self-efficacy, a cluster of variables that included scores on the CPI scales measuring Intellectual Efficiency and Responsibility; scores on the Locus of Control scale and ratings of achievement motivation and realism of educational and vocational plans at age eighteen (Werner & Smith, 2001). Temperament, a variable that included scores on the Activity and Distress scales of the EAS Temperament Survey at age thirty two was included. Last on the list of variables is health status in childhood, adolescence, and adulthood, a variable that included a count of serious illnesses and accidents reported by the individual or his caregivers and the number of referrals to health care providers (Werner & Smith, 2001).

Werner and Smith (2001) further developed the concept of protective factors

using elements from the environment which they called characteristics of latent variables of the caregiving environment and they included the following within these variables. Maternal competence, represented by a cluster of variables that included the mother's age and years of schooling (for the males), and the proportion of positive interactions with her child. This particular variable was checked independently by observers in the home at age 1, and during the developmental examinations at age two (for the females) (Werner & Smith, 2001). The next latent variable included sources of emotional support at ages two to ten; a variable that included ratings of the quality of the teenager's social life and of his/her feelings of security as part of the family. Sources of emotional support from ages thirty to forty were also noted. This variable included the number of persons the individual turned to in times of crises, such as: a spouse or mate, parents, siblings, members of the extended family, friends, teachers or mentors, coworker or boss, ministers, and mental health professionals (Werner & Smith, 2001). Last on the list of characteristics of latent variables was the number of stressful life events reported in childhood, adolescence, and adulthood (Werner & Smith, 2001).

Werner and Smith were able to show how the series of protective factors within the individual and the outside sources of support and stress are linked together throughout the six developmental cycles (from birth to age forty) and how these variables, in turn predict quality of adaptation and psychological well-being at midlife. This illuminates the complexity of the resilience phenomenon and emphasizes that resilience is a process in which positive factors outweighing risk factors can, over time, lead to adaptation within the context of adversity (Werner & Smith, 2001). Werner and Smith mention that the study allowed them a "rare opportunity to examine the interplay between protective

factors in the individual, the family, and the community that contribute to resilience in the formative years and to recovery in adulthood” (Werner & Smith, 2001, p. 2).

In summarizing the above latent variables and their significance, the study's outcomes determined that a mother's competence and the emotional support available to the children were positively linked to the quality of the children's adaptation as well as their health status, competencies, self-efficacy, and ability to make realistic plans. By age forty, “nearly half of all men and women (42.7%) were rated as having made a “good” adaptation and/or successful coping in their transition to midlife” (Werner & Smith, 2001, p. 31). Rather than one protective factor, the chain of protective factors which enabled the resilient individuals to overcome multiple adversities in their formative years and to navigate successful transition into midlife had many links. These associations included the individual's biological makeup which included an intact central nervous system and general good health, psychological dispositions composed of cognitive skills, temperament and self-efficacy, and the sources of emotional support he or she could rely upon at each stage of the life cycle (Werner & Smith, 2001). This last link which implies the importance of having emotional support has gained a lot of momentum since the study was published. Werner and Smith (2001) state that when asked what helped them succeed against the odds, resilient children, youth, and adults overwhelmingly and exclusively gave the credit to members of their extended family, to neighbors and teachers, to mentors and voluntary associations and church groups. Werner and Smith (2001) go on to note that once they entered the world of work, coworkers and bosses became major sources of emotional support for women as did friends. Further the number of informal sources of support available to the individuals in

the third and fourth decades of life correlated positively with their quality of adaptation at age forty (Werner & Smith, 2001). These adults from whom the children “gathered strength” were later termed Charismatic adults by Dr. Julius Segal (Brooks & Goldstein, 2004).

When comparing the findings of the Kauai study to that of other longitudinal studies from different generations who lived in different social and geographic contexts, we can be encouraged by the fact that many of the protective factors and the buffering processes in this study are also found in numerous other studies similar in nature (Werner & Smith, 2001; Edler, 1999; Clausen, 1993.; Vaillant & Milofsky, 1980.; Cederblad, Dahlin, Hagnell, & Hansson, 1994.; Rydelius, 1981.; Jorgensen et al., 1987 ). Werner and Smith’s findings, complimented by others’ findings, suggest that a number of potent protective factors have a more generalized effect on the life course of vulnerable children than do specific risk factors or stressful life events (Werner & Smith, 2001; Anda et. al.; Masten, 2001). According to Werner and Smith (2001), the resilient children represent a common core of individual dispositions and sources of support that interact and contribute to successful adaptation in adulthood; especially for children who were reared under adverse conditions. Werner and Smith (2001) claim “these factors matter over time. They foster hope” (p. 164)!

One study that produced results similar to that of the Kauai study was the High Valley Resilience Study which was conceived, designed, and carried to fruition by Stuart T. Hauser and Joseph P. Allen. This study analyzed recovery from serious psychiatric illness in the narratives of individuals who were disturbed as teenagers and were confined to the locked ward of the High Valley Residential Psychiatric Hospital (Hauser & Allen,

2006). Twelve years after the adolescent's crisis, which led to their hospitalization, many of the former patients were still leading disturbed and unhappy lives. Although a small few, nine out of sixty seven (12.8%), felt successful and optimistic. They anticipated the future with pleasure and excitement, and their performance on objective appraisals of young-adult development showed subjective confidence (Hauser & Allen, 2006). From these nine adequately adapted individuals, four were selected and their narratives were documented in detail within the book, *Out of the Woods* (Hauser & Allen, 2006). The purpose of the study was to answer the question of how resilience evolves or doesn't, and how it is informed by experience. Hauser and Allen were able to capture multiple aspects of their subject's journey from the comical, harrowing, distinctive, and ultimately triumphant. Their careful examinations of the four individuals who transcended adversity produced significant insight into the resilience phenomenon (Hauser & Allen, 2006).

Hauser and Allen (2006) began the children's narratives while they were still in crisis, predating a resilient outcome. This gave them unique insight which allowed them to investigate what helped some of them to better understandings and broader opportunities, and left others stalled in self-defeating helplessness. Hauser and Allen (2006) claim it is important to identify risk factors and protective factors; yet they warn lists cannot provide for the "something deeper" which makes the difference in people who despite real misfortune go on to lead solid and content lives. Through careful examinations of the children's life narratives, Hauser and Allen were persuaded to believe that there are characteristic thought patterns found among the resilient which have allowed them to emerge strong from experiences which destroy others (Hauser & Allen,

2006). They noted that there were important identifiable themes which ran consistently through the narratives of the resilient which were conspicuously absent from the others. These consistent themes were: the belief that one can influence one's thoughts and feelings, the ability to handle one's thoughts and feelings, and the capacity to form caring relationships (Hauser & Allen, 2006). These characteristic kinds of thinking mesh well with Werner and Smith's findings and when the themes are analyzed in greater detail, include components similar to the protective factors determined by Werner and Smith.

The first theme noted by Hauser and Allen (2006) is the belief that one can influence one's thoughts and feelings which they refer to as, "Agency and the Quest for Mastery;" another way of defining self-righting abilities (p.262). Hauser and Allen (2006) note that there is nothing comfortable or predictable in the way the resilient kids go about things but their belief that they can influence their environment is a dynamic, living force. They refer to it not as a placid reservoir of self-confidence, but a raging torrent. Hauser and Allen go on to note that the children experimented with ideas and life, not always in a manner which would appear rational or prudent, often embracing impulsivity. Yet, they always learn from the outcomes they evoke and incorporate them into their developing narratives (Hauser & Allen, 2006). The resilient youth also displayed overwhelmingly a phenomenon closely linked to the drive for self-mastery, known within psychology as an optimistic bias (Hauser & Allen, 2006). In other words they tend to focus on the upside of whatever it is they are doing. Optimistic bias has been linked to life competence and it is known that optimistic beliefs about how much we can alter our environments not only inspire action, but also soften the unavoidable failures and setbacks (Hauser & Allen, 2006; Seligman, 1991). Expanding this notion even

further, Martin Seligman (1991) argues that like helplessness, optimism can also be learned and therefore is not limited to endowed traits but is something that can be gained and applied throughout one's life.

The second characteristic, which was found within the resilient youth at High Valley, is defined by Hauser and Allen (2006) as the ability to handle one's thoughts and feelings; a process of looking inward and an ability to reflect. Hauser and Allen (2006) claim, "Resilience and disturbance are conjoined twins, impossible to uncouple. Resilience can easily coexist with "bad" behavior, and often does. And the capacity to reflect is no guarantee of adult judgment" (p. 270). Therefore, we should be careful not to cast an individual into a category of non resilience based solely on manifesting behaviors; particularly during the already volatile stage of adolescence. Reflection according to Hauser and Allen (2006) is the ability to think about one's thought process and make an active effort to make sense out of feelings (p. 270). Also found within the context of reflection is the ability of the children to understand themselves and others as complex individuals. This helps them to form a life narrative including those aspects of others which are not appealing and to change or harness those found within oneself (Hauser & Allen, 2006).

The third protective factor which came to light from the High Valley study is the capacity of the youth to form caring relationships. Hauser and Allen (2006) feel strongly about this last factor as they believe that through promoting inner resources such as reciprocal relationship skills, that children may be able to blunt the impact of social stressors, while the struggle to prevent and ameliorate social injustices continues. The children in the resilient narratives are noted as actively courting connections, and when

not recruiting connections, are engaged in minute and persistent observation of relationships; watching and listening (Hauser & Allen, 2006)). This allows them to be well positioned to take advantage when an appealing relationship presents itself. They are also noted as experimenters of relationships, devoting energy and attention into observing the art of relationships. This would point to a systematic process verses a luck of the draw haphazardness which determines which at risk children end up with the all-important relationship; Segal's charismatic adult (Hauser & Allen, 2006). Strikingly different are the fewer, confusing and impoverished recollections of relationships and overtones of estrangement and isolation which haunt the stories of the non resilient children. It is undetermined whether these children had less availability of relationships or if they were unable to make use of the ones that crossed their paths. What we do know is that the reflective children were often able to engage responsive adults in their stories and as noted above were actively engaged in the connection process. In short, Hauser and Allen believe that luck and access can never explain fully the way relationships become available to some children and not to others. They strongly believe the children themselves play an active role (Hauser & Allen, 2006).

The High Valley Study does not account for all variables which may affect resilience. Yet within such a complex web of risk and protective factors, it sheds light on the commonalities and differences, complicated and entangled as they were, found among the High Valley clients. Hauser and Allen are not conclusive about the origins of the divergent forces that made the distinction between the resilient and the non resilient. They believe neither of the two best explanations of human behavior, nurture nor nature has provided a satisfactory explanation of the resilience phenomenon. Interplay of the

two must be acknowledged as genes imply an absolute endowment which is not consistent with observation and despite highly problematic nurturing the resilient teens survived and even thrived (Hauser & Allen, 2006). However, regardless of whether the forces were historical, constitutional, interpersonal, structural, pathological, or something altogether different or what activated or inhibited them, something made a significant difference. This difference, according to Hauser and Allen (2006), appeared to be born through an individual's attention to agency, reflection, and relationship.

In another attempt to gain insight as to why some succeed despite all odds, data was gathered through case studies by Warren A. Rhodes and Kim Hoey, and published in the book, *Overcoming Childhood Misfortune/ Children Who Beat the Odds*. Rhodes and Hoey approached the subject of resilience through a series of interviews as well as subject scores on the Sixteen Personality Factors Inventory. Their case studies include seven individuals whom they determined to be resilient despite compounding risk factors such as the death of both parents and growing up in foster care (Rhodes & Hoey, 1994). Their findings perhaps produced more questions than conclusive data; however, it is worth noting in the context of other study results. What Rhodes and Hoey (1994) discovered was that all seven individuals shared the sensitive characteristic from the administered personality test, although scores were not high, and the other individual characteristics varied considerably in regards to the seven participants. High scores among the youth were seen in the categories of: Abstract Thinking, Venturesome, and Suspicious characteristics. Five participants scored extremely high on Self-sufficient, Tense/Driven, Forthright, and Sensitive Characteristics. Four participants scored extremely high on the Dominant, Experimenting, and Conscientious characteristics

(Rhodes & Hoey, 1994). What Rhodes and Hoey (1994) suggest from this information is that “one must be, to some extent, an unrealistic daydreamer to succeed despite the odd” (p. 134-135).

Rhodes and Hoey’s work provides interesting insight but lacks conclusive, empirical evidence; yet there is something to be gleaned from the individual narratives and the unanswered questions which crept into the picture as Rhodes and Hoey searched for commonalities. Their case studies support the notions that predisposition and temperament may well play a role in the manner in which individuals face adversity (Rhodes & Hoey, 1994). Rhodes & Hoey (1994) confirm, through the interviews, that reciprocity and quality within relationships as well as sufficient external supports, impact youth in a positive manner and is a common denominator among the resilient teens followed in their case studies. Complimenting these correlations and expanding on these ideas, Robert Brooks and Sam Goldstein have and continue to greatly add to the study of resilience.

Robert Brooks and Sam Goldstein are considered to be two of the leading authorities on the topic of resilience today. After over fifty years of combined clinical work, Brooks and Goldstein came to realize the great importance that the qualities of resilience play in children’s lives and in the shadows of disappointment from attempting to fix deficits raised their desire to approach their clinical work through a model focused on building assets (Brooks and Goldstein, 2001). They approach the asset building process with the idea that a resilient mindset, the ability to cope with and conquer adversity, is not a luxury or a blessing possessed by some children but an essential component for all children (Brooks and Goldstein, 2001). In their publications on resiliency, Brooks and

Goldstein synthesize and present a large volume of research, gained from their years as clinicians and gleaned from numerous studies within the field.

According to Brooks and Goldstein (2004), resilient individuals are those who have a set of assumptions or attitudes about themselves that influence their behaviors and the skills they develop. These behaviors and skills influence this set of assumptions so that a dynamic process is constantly operating. They refer to this set of assumptions as a resilient mindset which they have determined to be composed of several main features. It should be noted that Brooks and Goldstein (2004) carefully chose the word mindset to emphasize an important premise of their work: mindsets can be changed. The main features composing a resilient mindset are: feeling in control of one's life knowing how to fortify one's "stress hardiness," being empathetic, displaying effective communication and other interpersonal capabilities, possessing solid problem-solving and decision-making skills, establishing realistic goals and expectations, learning from both success and failure, being a compassionate and contributing member of society, living a responsible life based on a set of thoughtful values, and feeling special (not self-centered) while helping others to feel the same (Brooks & Goldstein, 2004). Specifically, Brooks and Goldstein have determined ten keys for resilient living, through their own observations and findings as well as the scientific findings of others within the field such as Garmezy, Werner and Smith. These ten keys include, changing the words of life or rewriting your negative scripts, choosing the path to become stress hardy rather than stressed out, viewing life through the eyes of others, communicating effectively and accepting oneself and others, making connections and displaying compassion, dealing effectively with mistakes, dealing with the success in building islands of competence, and

developing self-discipline and self-control and maintaining a resilient lifestyle (Brooks & Goldstein, 2004).

To summarize, Brooks and Goldstein (2001) state, "Resilience conveys a sense of optimism, ownership, and personal control" (p. 293). They are encouraged and hopeful that the instillation of a resilient mindset will help not only children facing great adversity but all children; as no one is immune to life's hardships. Brooks and Goldstein also call attention to the great importance of healthy adult child relationships as this is the avenue for which many children learn to manage their emotions, thoughts, and behavior in order to master the keys to resilience. Furthermore, resilience is a process and should therefore not end during the formative years of childhood but should be strengthened throughout the span of one's life (Brooks & Goldstein, 2005).

Coming from both a medical and a psychiatric standpoint, Frederic Flach, M.D., tackles both the destructive qualities of stress and the constructive elements of resilience. Flach (1997) argues that biological resilience is far more important than many realize. He makes the argument that resilience is often masked by dysfunction which, when looked at from strictly a psychological standpoint, can lead to insufficient or missed diagnosis. This tends to mitigate the biological/physiological aspects of resilience which when treated can have a dramatic impact on observed resilience (Flach, 1997). Flach concludes from numerous case studies and first hand experiences with patients facing numerous adverse circumstances, that it is key, in order to be able to tap into our resources of resilience, to maintain a good working order within our biological mechanisms and, there are often underlying medical problems in seemingly "non resilient" individuals, which when treated can give way to biological resilience (Flach, 1997). Flach (1997) claims that

resilience restoring drugs; lenses and exercises aimed at correcting ambient visual perceptual flexibility; exposure to light, minerals, and other supplements, or a diet that is guaranteed to provide us with our nutritional requirements; regular exercise; and planned relaxation are all ways to capitalize on keeping our stress mechanisms in an appropriate cycle of heightened stimulation and homeostasis which is essential to being able to manifest resilience.

On more of a psychological basis, Flach formed what he believes to be 14 traits attributed to resilient personalities. The following fourteen attributes emerged from various sources including personal experience, scientific literature, and close connections with resilient individual case (Flach, 1994). Among these attributes are: a strong, supple sense of self-esteem, and independence of thought and action without fear of relying on others to do so (Flach, 1994). Also included are: the ability to give and take one's interactions with others as well as an established network of personal friends; including one or more who serve as confidants. Flach (1994) states resilient individuals also have a high level of personal discipline and a sense of responsibility, recognition and development of one's special gifts and talents, and an open-mindedness and receptivity to new ideas. Also, willingness to dream, a wide range of interests, and a keen sense of humor are among the attributes (Flach, 1994). Incorporated into Flach's (1994) traits is the ability to gain insight into one's own feelings and those of others, and the ability to communicate these in an appropriate manner. Last on the list of attributes is a high tolerance of distress and focus, a commitment to life, and a philosophical framework within which personal experiences can be interpreted with meaning and hope, even at life's seemingly helpless moments (Flach, 1994). In concluding Flach (1994) states, "the

key to resilience, after all, is flexibility” (p. 104). This includes an active avoidance of polarization of any personality trait. Polarization stifles resilience as it restricts our ability to see the other side. Therefore, he concludes one should remain flexible, avoid polarization and integrate a medical and psychological approach when attempting to draw out resilient traits (Flach, 1994).

This section provided a brief overview of the protective factors composed both of psychological and biological constructs which are unique to the individual and influenced by their unique environmental experiences and which appear to be linked to resilience within youth. The following section will address the realm of gender differences which were often noted within the longitudinal studies as well as life narratives of resilient individuals.

### **Gender Differences**

One of the more interesting developments, observed in Werner and Smith’s Kauai study, was the notable differences between genders in relation to their “successful coping” (Werner & Smith, 2001). At age forty, a significantly higher proportion of men than women were in the “troubled” group (M: 23%; F: 8.7%). A higher proportion of women than men (M: 40%; F 54%) showed positive changes in their life trajectories in the transition from early adulthood to midlife and were rated as having made a “good” adaptation at age forty” (Werner & Smith, 2001). With this data, Werner and Smith (2001) conclude that a number of factors seem to combine to make life generally more difficult for males than females, particularly those that grew up in adversity.

One noted factor is the biological factor. With the female carrying an XX

combination of chromosomes and the male carrying an XY combination of chromosomes one might speculate that since it is known that the X chromosomes carry at least one hundred important genes, other than those specifically related to reproduction, and in addition the female has 4-5% more chromosomal material than the hemizygous male, females may be able to assemble more resistance to external hazards of development (Werner & Smith, 2001). Additionally, these noted genetic differences may be more likely to reveal themselves when the organism is stressed.

Another hypothesis for the gender differences, according to Werner and Smith (2001), may involve the "tendency for a mother without a Y chromosome to be sensitive to gene products of the Y chromosome and to provoke a reaction from her immune system, thus creating a relatively unhealthy prenatal environment for the male fetus" (p. 174). Werner and Smith go on to note that this immune reaction might produce neurological damage prenatally and contribute to the greater incidence of behavior disorders, learning disabilities, and mental retardation observed in males in childhood that do not substantially improve over time making their percentages of success less than that of their female cohorts (Werner & Smith, 2001). This hypothesis has yet to draw any conclusive evidence in favor of this theory yet it may be an area of resiliency research which will be analyzed in future studies.

A third factor explored is the differences in brain growth and brain activity areas between males and females. It appears that young girls are more verbal than young boys and tend to have fewer problems reading. Reading is a skill linked to successful adaptation in adulthood, particularly within our culture (Werner & Smith, 2001). Also, testosterone is linked to aggression and to suppression of the immune system which lends

to an increase in violent crimes among males and an increased vulnerability to physical ailments associated with stress (Werner & Smith, 2001). On a psychosocial level, women tended to take advantage of opportunities as they arose in terms of education, occupation, and emotional support which arguably gave them the upper hand, so to speak, when comparing them to their male cohorts (Werner & Smith, 2001). In summarizing the gender differences Werner and Smith (2001) state, "throughout the study there were large individual differences among "high-risk" individuals in their responses to both negative and positive circumstances in their lives. The very fact of individual variations in coping skills among the men and women who lived in adverse conditions suggests that educational, rehabilitation, or therapeutic programs designed to improve their conditions will have variable effects, depending upon the dispositions and competencies of the participants in such programs" (p. 176).

The extent to which genetics and neuroanatomy play a role in the process of resilience had only begun to be explored through the Kauai study and continues to be an area in which scientists and psychologists alike are investigating. Werner and Smith (2001) have hope for the future in looking at the current progress in understanding the human genome and claim that just as in the case of Phenylketonuria (PKU) or dyslexia, our increasing genetic knowledge will ultimately allow us to remedy genetic defects with mostly nongenetic interventions, whether they are medical, nutritional, or educational. Werner and Smith (2001) also note, "The knowledge of the heritability of individual dispositions that help us to overcome adversity and the fact that genetic influences can express themselves later in life should not lead us to the conclusion that heritability is immutability. But we need to recognize that the environment a child experiences is as

much a consequence of his or her genes as it is of external factors” (p. 181).

Brooks and Goldstein (2005), like Werner and Smith (2001), note that all large-scale longitudinal studies of risk and resilience report gender differences. They attribute this noted difference in part to gene-environment interactions in which an individual's response to environmental insults appears to be moderated by his or her genetic makeup (Brooks & Goldstein, 2005). Although clinical implications are premature, genetic components have been identified in connection with manifestations of resilience within the Dunedin Multi-Disciplinary Health and Development Study (Brooks and Goldstein, 2005; Silva & Stanton, 1997). Individuals with one or two copies of the short allele of the 5-HTT gene (a serotonin transporter) exhibited significantly more (self-reported) depressive symptoms in relation to four or more stressful life events between the ages of 21 and 26 than individuals homozygous for the long allele (Silva & Stanton, 1997). Of special interest is the Dunedin Studies finding that childhood maltreatment in the first decade of life predicted adult depression only among individuals carrying a short allele, but not among individuals homozygous for the long allele (Silva & Stanton, 1997). Another analysis resulting from the Dunedin Study was a functional polymorphism in the X-linked gene encoding the neurotransmitter metabolizing enzyme monoamine oxidase; A (MAOA) found to moderate the effects of childhood maltreatment in males. The study showed males possessing a genotype conferring high levels of MAOA expression that had been maltreated in childhood were less likely to develop antisocial problems such as: conduct disorders between the ages of ten and eighteen and the conviction of violent crimes by the age of twenty six than those with lower levels of MAOA activity (Silva & Stanton, 1997). The genetic related findings still need to be replicated before conclusive

evidence can be published; however, this study expands our knowledge of the possible roles of genetic components in the manifestation of resilience within individuals.

### **Application**

This section of the thesis will note the practical suggestions and applications proposed as a result of the resilience literature which was reviewed. Drawn from the literature review, it is sufficient to say that those studying resilience believe that it is an ongoing process which is a result of the interplay between biological and environmental factors. This being said, researchers believe that providing resources to increase the availability and effectiveness of protective factors known to positively impact resilience in youth, while working to decrease the amount of adverse experiences, would benefit not only individuals facing hardships but society as a whole. Researchers also believe the advancement of science and further comprehensive studies will shed new light on the subject of resilience as well as verify past study results and draw society closer to understanding the phenomenon as well as using it to the good of mankind.

Brooks and Goldstein (2005) would like to see the theory of resilience pushed to a sufficiently operationalized concept in which evidence can be measured in a reliable and valid way which they believe would lead to reasonable clinical and educational applications. They encourage a balance between science and practice which they foresee advancing the field. Brooks and Goldstein (2005) also believe that in these still primitive stages of untangling the complexities involved in the resilience phenomenon, the subject should be approached with both enthusiasm and restraint.

According to Hauser and Allen (2006), it is extremely crucial that youth learn the

art of mastery, reflection, and relationships. They encourage intervention which reflects an optimistic approach, amplifying the positive aspects of youth often masked by layers of dysfunction (Hauser & Allen, 2006). Furthermore youth should be encouraged to take an active role in reshaping their internal and environmental experiences. The adults who share their lives should view resilience as a process which is not always expressed in an appealing manner and often takes time like a germinating seed to bloom (Hauser & Allen, 2006). Hauser and Allen (2006) additionally call for a change in current social policy which is better attuned to fostering the mastery of protective factors. As is the case with Werner and Smith (2001), Hauser and Allen (2006) also note the importance of intervention over the entire life span of one's life, as resilience can take a lifetime to take root. This would place the system in a proactive position verses a reactive position and could potentially positively rewrite the scripts of the narratives of troubled youth (Hauser & Allen, 2006).

Werner and Smith's extensive and influential work in the field of resiliency complimented the handful of other like minded studies focusing on past and present generations in the United States and Europe. Studies such as: the Berkeley Guidance Study headed by Clausen, the Oakland Adolescent Growth Study directed by G.H. Elder, studies by Vaillant, Milofsky, and Snary, Carol Ryff's Wisconsin Longitudinal Study, Cederblad and Rydelius's Swedish studies, and The Copenhagen High-Risk Study (Clausen, 1993.; Elder, 1999.; Vaillant & Milofsky, 1980.; Snary & Vaillant, 1985.; Snary & Vaillant, 1985.; Cederblad, 1996.; Cederblad, Dahlin, Hagnell, & Hansson, 1994.; Rydelius, 1981.; Jorgensen et al., 1987). Through their powerful work and careful insight, Werner and Smith invoked a sense of urgency in terms of devoting more time

and resources into helping children develop skills of resilience which could in turn positively affect future outcomes for children of adversity and in exploring genetic links which would shape the way we approach the study. They call for a deliberate attempt to alter the course of development in so-called high-risk children and youth in a positive direction. Further they voice the need for social policies which encourage such interventions and which take a "top down" approach versus a "bottom up" approach in regards to social reform (Werner & Smith, 2001). As Werner and Smith (2001) see it, resiliency is a process which needs to be focused at an individual, familial, communal, and societal level throughout the span of one's life and should not be limited to interventions with preschool and school-age children as this could stifle resilient turn-arounds seen in a number of the youth who were not coping well in adolescence but experiences later in life allowed them to more generally accept the protective factors and move towards a healthy state of coping (Werner & Smith, 2001).

In conclusion, because resilience is an interplay between biology and environment it is important to provide adequate services to maintain good physical health prenatally through adulthood and is equally important to provide ample environmental resources to aid in the process. This can be done most successfully through purposeful social policies which encourage early and continual intervention as well as proper education across multiple disciplines in order to help instill characteristics in youth that we know to be linked with resilience. Furthermore, because studies show that human relationships and finding meaning and reciprocity within them is key to resilience being manifested, it is important that when given an opportunity to form a bond with children that we do so with both enthusiasm and sincerity; bearing in mind that resilience is a result, in most cases,

from the operation of basic human adaptational systems. If those systems remain protected and in good working order then development is robust despite the presence of severe adversity. However, if these systems are impaired, either internally or externally, adversity will produce negative outcomes and place individuals at risk for developmental problems (Masten, 2001).

## Conclusions

The human spirit is complex and highly individualized which makes the study of resilience a difficult web to untangle. Yet, through nearly six decades of studies and observations of resilient individuals, certain pronounced themes and conclusions have emerged. In general resilience is not limited to a trait endowed at birth, rather one's biological and genetic makeup are factors which interplay with environmental components and experiences throughout the course of life. Further, resilience ebbs and flows with natural human development. Therefore, restricting resilience to a trait of youth is shortsighted as many resilient behaviors and characteristics are not manifested until adulthood. It is speculated that gender plays a role in resilience in addition to known genetic factors. There are more definitive concepts taken from the literature review as well such as, the importance of meaningful/reciprocal relationships is essential and central to resilience and the vast majority of the research included in this thesis, acknowledge meaningful relationships as key to resilience. Further, there is no substitution for human bond and therefore, the "charismatic adult" is a profound piece to the puzzle of resilience. It is also noted that to some extent, predisposition and temperament play a role in the manifestation and/or the inhibition of resilience. Also, risk factors and protective factors, despite their origins, are constantly interplaying with one another; for without adversity, one cannot exhibit resilience. In addition, a cumulating of risk factors and adverse experiences leads to an increase in negative outcomes and therefore a decrease in manifested behaviors of resilience. Also, an optimistic outlook abides in a resounding majority of the resilient narratives and the ability to invoke foresight and hindsight and to actively participate in the writing of one's

life narrative makes a positive difference.

In conclusion, resilience is a vast area of research and continues to be a topic explored at great length and with much enthusiasm. With the elements of resilience understood thus far and the elements which are yet to be discovered, society can work to improve the lives of youth by giving them adequate resources and capitalizing on opportunities to form relationships. Resilience is a process which transcends ethnicity, social status, geographical boundaries, and historical contexts and draws on common human bonds of love, connectedness, meaning, and fulfillment. Eliminating all childhood adversity is implausible; however, strengthening human attributes relating to resilience and being purposeful about our interactions with youth is not. Understanding and implementing resilience in youth in a manner which will alter their life scripts in a powerful and positive way is a lofty humanitarian goal yet one which strikes hope within. Using the framework of resilience it is well within our reach as a society to flood our children with protective factors known to build resilience and to work towards reducing the number of adverse childhood experiences in order to aid children in becoming successful and content adults, ultimately creating a better society.

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