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Risk and protective factors related to resilience in adolescents in an alternative education program

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Risk and Protective Factors Related to Resilience in Adolescents in an

Alternative Education Program

by

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A dissertation submitted in partial fulfillment
of the requirements for the degree of
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Dedication

This work is dedicated to my parents, Francis William and Kathleen Gosciewski, two

people whose love for and faith in their child is matchless. I truly am blessed and I offer

this achievement as one small way to give back to them for giving me so very much.

I love you both.

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Risk and Protective Factors Related to Resilience in Adolescents in an

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ABSTRACT

Using a multivariate correlational design, this study was designed to determine

the degree to which selected risk and protective factors were related to resilience in an at-

risk student population. A total of 12 individual, family and external risk and protective

factors were identified and data were collected from 142 6th through 11th grade students

in an alternative education program for individuals who had committed severe behavioral

infractions. A series of multiple regression analyses were conducted using three outcome

variables: a rating of students' resilient behavior, number of behavior referrals in the

students' records, and standardized reading achievement scores. Five percent of the

sample then was selected for semi-structured interviews to glean additional information

about the relationships between the identified variables and student resilience.

The combination of individual, family and external risk variables explained a

significant amount of the variance in student behavior referrals and reading achievement,

but not in overall resilient status. With regard to behavior referrals, the largest

contributors to the model were age, severity of sending offense and neighborhood crime.

Reading achievement was related to special education status, as predicted, and negatively

related to community violence. Parental structure was positively correlated with resilient status but the percentage of variance explained by the overall model was not significant.

The combination of selected protective factors explained a significant amount of variance when resilient status and reading achievement were the measured outcomes, but not for the model addressing behavior referrals. Being a male and having strong cohesion as a family unit were the variables most highly related to resilient status, while special education eligibility and perceptions of school belongingness accounted for the largest variance in reading scores. School belongingness was negatively related to reading achievement in this sample.

An examination of qualitative data revealed that teacher characteristics were important to students' motivation to succeed, and information collected reiterated the importance of family structure and cohesion in students' resilient status. Other emerging themes were apparent when mentoring and friendship were discussed, as well as when students' self-perceived strengths, weaknesses and future aspirations were identified.

Chapter One

Introduction

At this moment there are two young boys in the same impoverished

neighborhood, living in single-parent homes with limited resources, financial or

otherwise, growing up in our American society. One will drop out of high school,

become involved in the juvenile justice system, have difficulty maintaining a consistent

income, and fail to care for his family adequately. The other will pursue an education

despite the obstacles, become a successful professional and a contributing member of his

community, and lovingly will support a family of his own.

Doll and Lyon (1998) indicated that "students from highly stressed communities

and families struggle up a much steeper path toward adult success" (p. 348), citing

numerous studies that have shown poor outcomes to be associated with poverty, family

dysfunction, and other maladaptive living conditions. So, what accounts for the success

of one and failure of the other, given that the two individuals come from similarly "highly

stressed" beginnings?

Resilience, risk and competence are terms that have been used in developmental

research by social scientists interested in questions similar to the above. Resilience, while

studied in some form over the past 50 or more years, is still a rather incomplete,

immature, and often confusing domain of developmental research (Doll & Lyon, 1998;

Pianta & Walsh, 1998). This, in part, is due to the fact that a specific, widely accepted

definition of resilience has not been adopted and, therefore, a somewhat nebulous construct has emerged (Davis, 1999). While a large number of studies have focused on the topic of resilience in some capacity, consumers of research may have difficulty drawing systematic conclusions from studies that purport to measure resilience, but define it quite differently across investigations.

Masten and Coatsworth (1998) globally define resilience as "manifested competence in the context of significant challenges to adaptation or development" (p. 206) and indicate that the individual 1) must have experienced an acute or chronic stressor that would place him or her at-risk, and 2) must adapt to his or her situation competently. Luthar and Ziglar (1991) indicated that resilience is evident in those whose overt behavior suggests the successful navigation of stressful situations. Others, however, have recognized the need to include emotional health as an essential indicator of resilient outcomes (Vaillant, 1994; Wolff, 1995). Wolff (1995) described internalizing conditions such as depression and anxiety as the "price of resilience." These disorders may not be as evident when behavioral and educational functioning are adequate but, nevertheless, they often compromise later adjustment in professional and personal relationships.

In addition to differences in global definitions of what resilience outcomes look like, operational definitions across investigations also differ widely. Davis (1999) explained that this is understandable so that numerous research questions can be addressed in varied settings. However, operational definitions within specific areas of resilience are not consistently applied either, making it even more difficult to compare findings across studies. Davis explained that within the domain of educational resilience,

for example, a variable being examined to determine competence may range from grades to standardized test scores in one particular subject area, to overall grade point averages (GPAs). Davis and others (Masten & Coatsworth, 1998) have urged that consensus is needed in terms of both global and operational definition of terms, especially before consumers of research are able to compare multiple interventions or assess the effectiveness of a single intervention in different settings with different populations of children.

Pianta and Walsh (1998) noted the fact that complex developmental systems regulate risk and resilience in children, making it challenging to meaningfully single out and manipulate contributing variables. They described resilience and, more specifically, competence, as "multifaceted and connected to a host of other factors in a broad social context" (p. 410).

The Development of Resilience Research

While empirical research in the area of resilience is relatively new, a substantial focus over time has been placed on the effects of stress that put children at-risk for a number of adverse outcomes. Scientists in several disciplines, including health and medicine, social work, developmental psychology, and psychopathology have attempted to identify these relationships between stress and adjustment. Only more recently has this important area of study become salient to researchers in the school psychology and educational disciplines who are interested in helping students to become more successful across academic and social domains.

Doll and Lyon (1998) explained that there have been three iterations of studies that have shaped the current understanding of risk and resilience. The first iteration broadly connected negative life experiences, specifically, being reared in adverse circumstances, to subsequent mental illness. Examples of these types of studies include Spitz's (1946) investigation of infants' depression and early death associated with institutionalization and lack of mothering and Harlow's (1958) studies examining the resultant cognitive, social and emotional deficits in infant monkeys also from limited mothering.

The second genre of studies took this identification of factors a step further by conceptualizing in greater detail a number of singular factors that lead to specific outcomes. In this iteration, case studies and longitudinal studies determining pathways of risk from childhood through adulthood were initiated to identify static risk factors predisposing a population to a given outcome. Examples of this type of investigation include Rutter's (1971) examination of the impact of separation experiences on development and Patterson's (1982) investigation of coercive family processes and conduct disorder. This second iteration of studies allowed for the understanding that life experiences differentially contribute to healthy versus adverse outcomes in children, and it provided researchers with a rather comprehensive list of biological, behavioral and environmental factors that are predictive of poor adjustment (Doll & Lyon, 1998).

The distinguishing feature of the third genre of studies, which spans the last three decades, is the realization that a rather substantial subset of individuals withstand negative environmental conditions and personal circumstances with very few

psychosocial repercussions. Rutter (1985) noted that even with the most severe risk factors coming into play, about half of the group experiencing them will avert the negative outcomes with which the factors are associated. Rather than looking at the extensive list of risk factors in isolation, researchers choosing to adopt a resilience perspective recognize the interplay between risk variables and those variables that serve a protective function. Doll and Lyon (1998) stated that this reconceptualization "provided a subtle, but critical shift in the focus of subsequent research from a static consideration of risk variables or factors toward a more dynamic consideration of negotiating risk situations" (p. 351).

Difficulties in Conducting Resilience Research

Clearly, a main benefit of seeking to understand which variables contribute to resilience in children at-risk for school and social failure is that it allows for the development of meaningful interventions at both the school and individual levels. But before useful intervention plans can be created, researchers in this area have an important duty to clearly and precisely communicate what they are examining and attempting to measure when discussing resilience in children.

Luthar, Cicchetti, and Becker (2000) identified a number of issues that need to be addressed when resilience is the empirical focus, given that there have been some substantial and legitimate criticisms levied on resilience research in recent decades. As discussed earlier, Luthar et al. noted that a fundamental problem in the available literature is that there is questionable consensus in terms of the definition of resilience. The conditions of adversity that place children at-risk, the protective factors that support

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positive adjustment, and the outcome variables that seek to measure resilience vary from investigation to investigation, and "this diversity in measurement has led some scholars to question whether resilience researchers are dealing with the same entity or with fundamentally different phenomena" (p. 545).

Because of this variability in basic terms and measured constructs, children in one study may be deemed resilient in terms of educational performance or behavioral patterns, but have poor adjustment in other important domains such as social skill level or emotional health (Pianta & Walsh, 1998). For example, in a study by Kaufman, Cook, Arny, Jones, and Pittinsky (1994), two thirds of children with histories of maltreatment demonstrated educational resilience, but only 21% manifested resilience in the area of social competence. It may be beneficial, therefore, as suggested by Luthar et al. (2000), to identify the specific domains in which children are found to demonstrate resilience (e.g., behavioral resilience, emotional resilience, educational resilience).

Assuming that resilience in one area signals that the child is well adjusted across potentially unrelated domains may be misleading and, therefore, narrowing the focus of resilient outcomes to a specific domain can increase clarity in empirical findings. In the present study, the resilience domains under examination include academic, behavioral, social and emotional components in a sample of children attending school in alternative education settings.

Another issue to consider is that children found to share very similar risk factors, such as low socioeconomic status or having a drug-abusing parent, for example, may experience those life circumstances very differently even though they look the same "on

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paper" (Luthar et al., 2000). This distinction between "statistical" and "actual" risk, discussed further by Richters and Weintraub (1990), needs to be taken into consideration when resilience is assessed because all children in a given study truly may not be experiencing comparable levels of adversity at the outset. Other moderating variables (e.g., support from extended family) may be operating that would make a given risk factor less detrimental to a child's level of adjustment.

Similarly, children's subjective reports of how a particular risk factor affects them may be different from objective ratings by the researchers (Gordon & Song, 1994). As Luthar et al. (2000) explained, "some individuals may see themselves as being relatively well off, even though scientists may define their life circumstances as being highly stressful" (p. 550). This certainly is a potentiality in all different types of research, not just research looking at resilience in children. Luthar et al. noted that once it has been determined that a given risk factor is associated with maladjustment, the logical course of action is to determine the factors linked to positive outcomes, with these caveats in mind.

The current investigation was conducted to contribute further to the expanding third genre of resilience research, while attempting to address some of the recognized difficulties outlined above. For example, multiple areas that contribute to an individual's level of resilience were addressed (i.e., academic, behavioral, social, emotional), and data from multiple sources were collected (i.e., school and community databases, student report, teacher report). Through this work, it is hoped that a greater understanding of the interplay of risk and protective factors in students acutely at-risk for personal and school failure will result.

Research Questions and Hypotheses

Based on the model proposed by Cowen and Work (1988) relating to stress-resistance and coping ability, there is a complex and reciprocal interaction across three areas that determines the degree of resilience that a child can display in the face of stressful life experiences. These three domains include: 1) personal attributes, 2) family factors, and 3) external supports. Cowen and Work contend that having appropriate models for successful coping at an early age sets the stage for competence despite risk. A child's internal resources interact with these external supports to promote or detract from one's psychosocial adjustment.

In the current investigation, variables have been identified in each of these three domains, through an examination of existing literature, that are likely to account for some of the differences in resilient outcomes in a sample of students at-risk for failure (see Table 1). That is, individual, family, and external risk factors as well as individual, family and external protective factors will be examined to establish their predictive power in determining student performance (i.e., composite scores based on academic, behavioral, social, and emotional functioning).

The participants in this study are determined to be at-risk for school and social failure due to the need for them to be placed into an alternative education program. Such a placement occurs after a student has committed behavioral infractions severe enough to warrant removal from the regular education setting due to multiple suspensions or an expulsion. The removal is intended to be temporary and re-entry into the student's community school is contingent upon his or her following the behavioral and academic

program during placement. A more detailed description of the participants can be found in Chapter 3.

The following research questions have been identified for examination:

Research Question 1: To what degree are the identified individual, family and external risk factors related to student outcomes, specifically with regard to:

a.) resilience status,

b.) behavior referrals,

c.) reading achievement?

Research Question 2: To what degree are the identified individual, family and external protective factors related to student outcomes, specifically with regard to:

a.) resilience status,

b.) behavior referrals,

c.) reading achievement?

Research Question 3: Do any of the identified individual, family, or external protective factors serve to significantly moderate the effects of the individual, family or external risk factors on student outcomes with regard to:

a.) resilience statu,,

b.) behavior referrals,

c.) reading achievement

It was hypothesized that the presence of specific individual, family, and external factors will be related to students' outcomes in an alternative education program. Specifically, the more of these variables experienced in a negative or risk direction (low

parental versus high parental structure), the less successful students' school performance

and resilient attitudes are likely to be. Conversely, the more variables a student

experiences in a positive direction (e.g., on-grade level versus having repeated a grade),

the higher the likelihood that resilient outcomes will result. That is, it was hypothesized

that experiencing the identified risk factors will compromise performance while

experiencing protective factors would support resilience and serve to moderate at-risk

status, allowing for more adaptive functioning in the program.

Table 1 - Identified risk and protective factors included in study

Risk Factors		
Individual: • Type of sending offense • Juvenile Record • Retention	Family: • Parental structure • Family composition	External: • Community violence (crime statistics) • Perceptions of violence
Protective Factors		
Individual: • Attributions • Self-perceptions of physical appearance	Family: • Family cohesion	External: • Extracurricular involvement • School belongingness

In summary, through this investigation the researcher aimed to identify pertinent

risk factors that contribute to unsuccessful outcomes as well as those protective factors

that serve to buffer or moderate risk and allow for more resilient outcomes. By examining a specific population with clearly defined indicators of risk and protection, this study contributes meaningfully to the construct of resilience and provides information that can guide the development of interventions for use with students at risk for failure.

Chapter Two

Literature Review

This chapter provides information about the construct of resilience through a definition of terms and a description of models of resilience that guide research efforts. A review of both seminal and more contemporary studies is presented, as well as support for the inclusion of specific risk and protective factors in the current investigation.

Definitions of Terms

There are myriad ways in which the construct of resilience, through examination of risk and protective factors and later outcomes, has been examined and defined over time. While this may be necessary when aiming to gain an understanding of such a complex concept, it introduces some difficulty when one tries to draw specific conclusions that are applicable to a range of individuals. Unquestionably, researchers in this area have an important duty to clearly and precisely communicate what they are examining and attempting to measure with regard to resilient outcomes in children (Luthar, Cicchetti, & Becker, 2000).

Garmezy, Rutter, Masten and Coatsworth are leading researchers in the field of resilience who, through their voluminous writings and research projects, have tried to hone definitions of risk and resilience in the attempt to guide other researchers in their scientific inquiries. With the goal of developing sound interventions for at-risk youth, each of these accomplished researchers has urged that the interplay of multiple risk and

multiple resources be examined given that cumulative protection efforts are essential in addressing cumulative risk processes. Masten and Coatsworth (1998) indicated, "the full potential of intervention will not be realized until there is better investigation of what we know about the normal development of competence, the development of psychopathology, and resilience" (p. 215).

In response to the need for definitional clarification of basic terms such as resilience and risk, Doll and Lyon (1998) provided a comprehensive definition of risk, breaking the concept down into a number of more specific categories. Table 2, found in Doll and Lyon's article, clarifies the specific types of risk factors with which researchers may work, using Conduct Disorder as an illustrative example. Doll and Lyon's (1998) classification of risk factors demonstrates one example of a useful definitional framework about which researchers can share an understanding.

Definitions of resilience have been put forth by a number of researchers during the course of its study and there has been general agreement on the conditions under which an individual is considered resilient. At the most basic level, resilient individuals must 1) have been exposed to substantial adversity now or at some point in the past, and 2) be functioning adequately despite this exposure (Luthar, Cicchetti, & Becker, 2000; Klimes-Dougan & Kendziora, 2002). Hollister-Wagner, Foshee, and Jackson (2001) define resiliency as "the ability to survive and thrive despite exposure to negative circumstances" (p. 445), and it is explained similarly by Garmezy and Masten (1991) as being "a process of, or capacity for, or the outcome of successful adaptation despite challenging and threatening circumstances" (p. 459).

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Table 2 - Risk Terminology, Descriptions, and Examples Applied to Conduct Disorder

Terminology	Description	Example
Correlate	Associated with an outcome, but not a known cause	Lack of empathy for others
Concomitant	A parallel consequence of a problem, but does not precede the main outcome	Substance abuse
Invariant risk factor	A known risk factor, but is unalterable	Sex
Variable risk factor	A risk factor amenable to alteration through prevention or intervention	Family relations
Marker	A variable risk factor that shows promise of being causal to a specific outcome, but is not yet proven so	Low family income
Causal risk Factor	A variable risk factor that has proven causal to a specific outcome	Coercive family interactions

The way in which "adversity" and "threatening circumstances," and "adequate functioning" and "thriving," have been measured varies widely from one investigation to the next. When resilience is divided into domains, which often include academic, behavioral, emotional and social domains, researchers employ operational definitions that

suit their specific studies. For example, academic resilience as defined by Finn and Rock (1997) involved students 1) earning passing grades throughout high school, 2) achieving "reasonable" scores on standardized achievement tests, and 3) graduating from high school on time. Tiet and Huizinga (2002) reviewed the literature and found that the outcome component of the construct of resilience has been measured using cognitive competence, academic achievement, school-based competence, self-esteem, social resources, education, vocation, marriage and life satisfaction, psychological disorders, delinquency and behavioral disturbances.

Similarly, indicators of risk or adversity over the years have included medical problems at birth, conditions of physical handicap, parents with mental illness, alcoholism or criminal involvements, absence or loss of a parent, low parental education and vocational skill, neglect and maltreatment, institutional upbringing, family instability and/or conflict, minority status, and urban living, among others. Tiet and Huizinga (2002) noted that most researchers assess a number of variables simultaneously and, while it makes the investigations more complex in nature, it lends support to the notion that resilience is a multidimensional construct.

Doll and Lyon (1998) indicated that numerous risk factors are consistently found to emerge across studies, supporting the notion that common developmental pathways exist that are predictive of later functioning. Rather than thinking of these factors as being isolated or singular in nature, they purported that groups of risk variables might be thought of as "constellations of interrelated social hazards" (p. 355). One such constellation is childhood poverty, which they noted as being the most consistent

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predictor of later dysfunction. Underneath that broad category falls, for example, financial dependence on government support checks, an overcrowded residence, family disorganization, adverse living conditions, limited parental education, and large family size.

Other constellations included as being consistently predictive of poor outcomes were uncaring parenting, maltreatment, and marital conflict/family dysfunction, each consisting of a number of related variables or circumstances. This way of conceptualizing and grouping related variables is helpful in organizing one's efforts and it urges researchers to more thoughtfully consider the interrelationships among variables that are aiming to represent the same overarching risk factor.

Doll and Lyon (1998) also urged that research efforts should examine multiple constellations to get the best sense of those variables contributing to resilient outcomes. They noted that increases in the number of risk factors a person experiences is multiplicative rather than additive, and that the prevalence of poor outcomes "increases geometrically" in individuals exposed to two or more risk situations. Garmezy (1987) noted this trend also, hypothesizing that when a person experiences two risk factors it increases the likelihood of incurring later maladaptive outcomes four-fold, while four factors would increase the risk by ten. Given this weighty realization, Doll and Lyon commented that "this phenomenon of accumulated risk argues against research that isolates discrete risk constellations for study and against prevention/intervention programs that target students with a single risk factor" (p. 356).

In sum, the study of resilience has proved to be somewhat challenging for researchers given that it is a relatively new area of inquiry and that the variables contributing to it are numerous and often interconnected. It clearly is a critical area to pursue, however, especially given that fairly commonly experienced risk factors, when experienced in combination, can have detrimental consequences. It should be the goal of every researcher interested in the concept of resilience to work to identify those variables that serve a protective function to individuals most at-risk for negative outcomes.

Models of Resilience

In addition to the important task of clarifying important concepts and terms used in resilience research, developing models that explain the interplay of relevant risk and protective factors in stress-affected children has been invaluable in guiding further investigations as well. Most researchers agree that there is a complex relationship between factors that are inherent to the individual, the family, and the environment that result in one's level of psychological adjustment and resilience to stress (Klimes-Dougan & Kendziora, 2002; Cowen & Work, 1988; Engle, Castle, & Menon, 1996; Garmezy, 1985; Masten & Garmezy, 1985; Rutter, 1987). Bandura's (1977) theory of reciprocal determinism and Bronfenbrenner's (1979) ecology of human development are two seminal, established theories that illustrate that the individual both impacts, and is impacted by, those systems within which he or she operates. This conception of the interplay of individual, family and environmental or community factors is supported in models of resilience like Cowen and Work's (1988) Social Learning Theory (SLT) Transactional Model.

Cowen and Work's (1988) model, based on an interactive and transactional view of the child and his or her environment, proposes that each child evidences specific characteristics from a young age, such as social responsiveness, mood, activity level, level of autonomy, and exploratory behavior that are either supported or "blunted" by their environments. In the face of stressful life circumstances, Cowen and Work contend that the likelihood of successful coping is increased for a child who demonstrates a greater number of these characteristics in a positive vein (e.g., curiosity, positive mood, friendly-outgoing behavior). Although the likelihood of a more adaptive outcome is increased, it is not ensured, and sources of family and environmental support, or lack thereof, are equal determinants in shaping the child's ability to become stress-resistant (SR) rather than stress-affected (SA). More specifically, if the child experiences a supportive and nurturant family situation and is exposed to adult models in the community who demonstrate effective coping, stress-resistance is more likely to result. Conversely, if familial support continues to remain inadequate and available adult models remain absent or dysfunctional throughout childhood, the child is less able to learn effective ways to cope with stress and, thus, are much more likely to become stress-affected.

Cowen and Work's (1988) model includes specific individual characteristics and more general family and environmental processes. It is a useful framework for testing additional hypotheses about other potential risk and protective factors as well, and the authors indicated that "present lacks in information both about the range of defining characteristics of invulnerable children and factors that favor such outcomes, structure

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further research steps. One is to broaden the nomological net of their defining characteristics" (p. 602).

Early Developments in Resilience Research

There are a number of seminal studies that have guided research in the area of resilience, several without necessarily setting out to do so. Three "iterations" of studies of risk have taken place as identified by Doll and Lyon (1998). The conclusions that negative life experiences are involved in the development of mental health difficulties, and that different types of risk situations relate to varying maladaptive outcomes, resulted from the first two iterations of studies. The third iteration introduced the notion that, while many individuals are exposed to negative life circumstances, all do not succumb to the poor outcomes thought to be associated with such exposure. Thus, the idea of protective factors moderating the influence of risk factors on personal outcomes was generated.

Perhaps the most renowned of these early, influential studies examining the concept of protective mechanisms and resilience is the Kauai Longitudinal Study conducted by Werner and her colleagues between 1955 and 1989. Initially, this investigation was designed only to identify factors predictive of developmental disabilities in 505 children born in 1955 on the Hawaiian island of Kauai. The study later was expanded to examine specific factors contributing to adolescent and adult mental illness, educational disability, and delinquency.

Data were collected on a myriad of biological, environmental, psychological, social and cognitive factors by the investigators, social workers, nurses and physicians

pre- and perinatally (i.e., mother interview), and at 1-, 2-, 10-, 18-, and 31/32-year follow-ups. Werner and Smith (1992) found that one out of every three children in this birth cohort (N=168) were exposed to risk factors that contributed significantly to maladaptive outcomes in two-thirds of this "vulnerable" group (N=112), those factors being low maternal education, parental psychopathology, genetic abnormalities, and perinatal health complications. Despite sharing these same risk factors with the rest of the at-risk subsample, one third of these children (N=56) successfully evaded the poor outcomes experienced by the others (i.e., serious learning and behavior problems prior to age 10, delinquency, severe coping and mental health problems, and/or pregnancy by 18 years of age). Upon closer examination, protective factors were identified that were thought to account for resilience in this subsample. There were a combination of individual factors, specifically higher intelligence, easy temperament, social competence, and high self-aspirations, and contextual factors, including warm relationships with parents and other caregivers in the community, that were found to afford protection (Werner, 1989).

As is often the case with longitudinal research, other questions develop over the course of a long-term investigation (Gall, Borg, & Gall, 1996). The inquiries into the resilient group's outcomes became a secondary purpose of the investigation and may have been more thoroughly examined had this been a research question from the outset. This, in conjunction with the sample being very small for so many analyses and the difficulty generalizing findings from this group of islanders to the general population, serves as a limitation to this research.

The Newcastle Thousand Family Survey was a longitudinal study spanning 31 years that examined the effects of risk factors on later outcomes. The survey was given to parents of children born between May 1 and June 30, 1947, and gathered information on each of six risk factors: marital instability, parental illness, poor care of children and the home, social dependency, overcrowding, and poor mothering ability. On each child's file, red dots were adhered when significant negative scores were earned on each of these factors. During the next 15 years, researchers collected follow-up data on each child's physical growth, school achievement and behavior, and the family's employment status and involvement in the criminal justice system. When the birth cohort reached the age of 31, investigators returned to the original files to determine whether the "red dots" were predictive of criminality in adulthood and a significant relationship was, indeed, determined. Those individuals with red dots who avoided criminal involvement were found to differ from those who did not on the protective variable of kind and effective parenting. A major limitation of this study, however, is that the families knew they were a part of a study examining rather sensitive family variables and tracking criminal involvement. This may have, in itself, influenced the behaviors and outcomes of all parties in an expected direction (e.g., "faking good").

The 1940 Boston Underclass Study of inner-city delinquency was conducted by Glueck and Gleuck and included a control group of junior high school males that Long and Vaillant (1984) contacted for follow-up inquiry. They located 87% of the original controls (N=399) whom they retroactively grouped into risk categories based on originally collected data (e.g., economic dependence, housing, employment status, score

on a measure listing indices of risk such as low parental supervision, lack of family cohesion, and maltreatment). Follow-up data collection included interviews and measures of economic standing, mental illness, and social competence in those in the highest at-risk (in boyhood) category (N=75). The protective factor that most significantly led to resilient outcomes in adulthood was described as "industriousness," which encompassed engagement in school and community and involvement in athletic activities.

This study is limited in that what was deemed to be a risk variable in 1940 may be very different in degree from what is considered a risk over 40 years later when the follow-up was conducted. Collecting information from archival sources does not allow for clarification of details surrounding the variables being examined. Similar to the Kauai study, a small section of the original sample was examined (N=75) and the place from where the sample was drawn, inner-city Boston, makes it harder to generalize results to broader groups of individuals as well. Nevertheless, this clearly is another study that helped to shape the concept of resilience in an at-risk population.

As is evident from these important early studies, a shift has occurred from the examination of psychopathology and the remediation of it, to an interest in factors contributing to individuals being able to overcome conditions of stress and disadvantage. Cowen and Work (1988) stated that examining this group of at-risk, yet successful, individuals may provide "an important key to a psychology of wellness, a needed antidote to mental health's historical emphasis on pathology and its containment" (p. 594).

A greater number of investigations conducted presently take into consideration the protective factors that serve to buffer against poor outcomes in individuals exposed to stressful acute events (e.g., parental divorce, hospitalization) and chronic situations (e.g., poverty, family discord) than previously (Cowen & Work, 1988). A more preventative or interventionist perspective results from this focus and more can be done from a proactive standpoint to better the outcomes for at-risk children.

Risk and Protective Factors Affecting Resilient Outcomes

The broad scope of variables examined in resilience research is a source of advantage in that myriad individual, familial, and environmental factors have been considered to exact an influence on child outcome. However, as indicated above, it can potentially make the selection of pertinent variables a challenge for current researchers as there seems to be more "breadth" than "depth" at times. What follows is a review of a selection of studies thought to be representative in identifying empirically-supported risk and protective variables, many of which will be examined further in the present study. These particular risk and protective factors were selected for review and for inclusion in the current investigation because they are among those most commonly found in the literature as having an impact on resilient outcomes while still deserving further examination with broader populations (Doll & Lyon, 1998; Masten & Coatsworth,1998).

Risk Factors

Low socio-economic status and single motherhood. There is substantial empirical validation that identifies low socio-economic status (SES) as a potential risk factor for a whole host of negative outcomes in developing children and adolescents. Low SES

clearly is linked with and resultant from a number of other potential risk factors (e.g., low parental education, overcrowding, limited resources, exposure to violence, unemployment), further contributing to the likelihood of compromised functioning (D'Imperio, Dubow & Ippolito, 2000; Jeynes, 2002; McLeod & Nonnemaker, 2000).

One such risk factor is single motherhood, compounded by low maternal education, given that the largest segment of the population in poverty in the United States is made up of single mothers and their children. In 2003, roughly 57% of families headed by single mothers subsisted at the poverty level (U.S. Census Bureau, 2004). In addition, 90% of single parent families are headed by mothers whose economic standing almost always decreases significantly (i.e., by an estimated 70%) when the father no longer lives with the family. Children of young mothers in poverty, particularly those of minority status, have been found to demonstrate more behavioral problems, be more likely to drop out of school and face limited employment opportunities, and have an increased incidence of becoming adolescent parents themselves (Carlson, 1995).

The prevalence of single-headed households continues to increase. In 2000, 68% of children under 18 years old lived in married-couple families, down from 72% ten years before. This downtrend occurred in each state in the United States, with several states showing a decrease of as much as seven percentage points (Federal Interagency Forum on Child and Family Statistics, 2003). With roughly one-third of a given school's student body living in households headed by one parent, a relatively large population of children experiencing at least some of the related factors that put them at risk for decreased resilience is to be expected.

Grade retention. Rafoth and Carey (1995) indicated that grade retention, where a student repeats the same grade the subsequent school year, has been thought to have negative ramifications for students since the 1930s. However, retaining students continues to be widely practiced today with little empirical evidence to support its effectiveness in better preparing a student for the academic and social demands of later grades (Rafoth & Carey, 1995). With federal and state-wide initiatives requiring students to meet predisposed bench marks for promotion, retention is sometimes seen as the only recourse for improving student performance and likely will continue to be used at an increasing rate for that purpose (Jimerson, 2001). Recent estimates indicate that 15% of students are retained each school year and, by the ninth grade, anywhere from 30 to 50% of students will have been retained at least once (NASP, 2003). In Florida, where the current investigation is being conducted, a total of 208,039 students, 8.5% of students in Kindergarten through 12th grade, were retained in the 2002-2003 school year. Racial make-up of retained students was 36% Caucasian, 37% African-American, 24% Hispanic, 1% Asian, and 2% Multi-racial (Florida Department of Education, 2004).

Unfortunately, the practice of retention, in itself, clearly is not sufficient as an intervention strategy. Research has demonstrated some mixed findings in terms of the effectiveness of grade retention; however, as Jimerson (2001) noted in a comprehensive meta-analysis of retention research over the past century, some significant methodological problems exist in the body of professional research available on the subject. Jimerson indicated that common concerns include the use of pre- and post-test scores of retained students without employing a comparison group or, when a comparison

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group was utilized, specific information about the make up of that group often was not provided. In addition, some of the outcome studies have not focused on anything more than academic factors (i.e., ignoring the associated social, emotional and behavioral difficulties) nor have they examined longer-term effects of retention. In more recent decades, researchers have tried to correct some of these earlier oversights, and more definitive stances on the lack of support for and potential negative outcomes of grade retention have resulted.

While some initial academic gains have been found in students retained for academic skill delays in early grades (i.e., Kindergarten and first), those gains "wash out", failing to hold up over time (Rafoth & Carey, 1995). Holmes and Matthews (1984), in an earlier meta-analysis of 21 retention studies, calculated effect sizes with non-academic measures and found negative effects for social and emotional adjustment, behavior, and self-concept in elementary-aged students who had been retained.

With respect to students at the secondary level, decisions to retain most often stem from students' lack of attaining sufficient credits for promotion and/or a failure to pass minimum competency requirements. Rafoth and Carey (1995) indicated that research findings with this age group link retention to a whole host of negative outcomes, including minimal academic gains the subsequent year (Purkerson & Whitfield, 1981), poor attendance and higher suspension and drop-out rates (Hamilton, 1986), and problems with motivation and self-concept (Thompson, 1980). With both primary- and secondary-aged students, research supports the notion that the student interprets retention

as personal failure and, in some cases, punishment, setting him or her up for limited self-efficacy with respect to future school performance (Rafoth & Carey, 1995).

At present, research does not support the general reliance on grade retention as an option for improving student performance and readiness for future academic demands (NASP, 2003). However, it continues to be employed with students at-risk for failure, despite the building evidence that academic, social and emotional difficulties often result. Therefore, retention certainly can be considered to be a viable risk factor when considering potential threats to students' resilience and psychological adjustment.

Antisocial behavior and delinquency. Some students display behavior challenges in school and not in the community and vice verse. Sprague et al. (2001), however, noted that there is substantial overlap in those children who have discipline problems in school and those who engage in criminal behavior outside of school grounds. There also is evidence to support that of the 8% of youth aged 10 to 17 who demonstrate delinquent behavior, just a small subgroup is responsible for the majority of offenses. Specifically, about 20% of delinquent youth are responsible for 87% of the new crimes being committed. Many of those with multiple juvenile offenses began their involvement with the system early, often before 12 years of age. Sprague et al. noted that identifying and intervening with this targeted population of at-risk youth is essential in order to avert the costly consequences that result from such involvement in later adulthood (e.g., employment problems, mental health problems, dependence on social services, continued offending, drug and alcohol abuse).

Sprague et al. (2001) conducted an investigation to uncover predictors of student involvement in delinquent behavior in a sample of sixth graders (mean age = 12.8) that were selected from three feeder elementary schools to attend a "school within a school" (i.e. an alternative education program within a regular middle school working with students demonstrating behavior problems). Using discipline referrals, teacher nominations and community arrest data, the researchers employed a multiple gating approach to identify the 44 students they ultimately included in the sample. Specifically, teachers first nominated students believed to be most at-risk for poor outcomes (i.e., school failure, adjudication, substance abuse) and then rated those students using a behavioral checklist containing 19 items identifying the students' risk factors (e.g., academic problems, disruptiveness in class, peer problems).

The next gate involved collection of data from the County Department of Youth Services (DYS), identifying nominated students' juvenile involvement. Finally, a school records assessment was conducted and additional measures were given to parents and teachers of the 44 students (i.e., Child Behavior Checklist and Walker-McConnell social skills assessment tool).

Participants were found to have a number of commonly recognized risk factors for behavioral and other problems (e.g., 65% eligible for free/reduced lunch, a mean of 14 behavioral referrals per school year, 36% eligible for learning disabled status, 82% male, clinically signficant ratings of social skills, externalizing and internalizing problems). Over one-third (39%) were found to have DYS records, in each case starting by or before the age of 12. While there was not a significant relationship between

disciplinary referrals and overall juvenile justice involvement, students engaging in the more severe criminal infractions (as indicated by DYS' severity index score) did demonstrate significantly greater behavioral difficulty in school (r=.53). Sprague et al. recommended the gating procedure for identifying youth most at risk for juvenile involvement and other poor outcomes and asserted that collecting data about risk and protective factors in this population can help educators to design more comprehensive intervention practices in schools.

This investigation was limited by its small sample size and also by the way in which students were identified for the study. Sprague et al. (2001) noted that while teachers can be excellent informants, a more standardized method of identifying the students might yield a bigger and more representative sample. For example, students who have internalizing disorders may be overlooked if teacher nomination was used rather than screening with discipline referrals, poverty, academic profiles, and so forth. Another limitation mentioned by the authors was that only DYS records from the researchers' counties were obtained. Prior juvenile records of students who recently moved into the area were not sought after. Therefore, an under-representation of actual delinquent activity was the likely result.

Tiet and Huizinga (2002) utilized structural equation modeling techniques to examine the latent constructs of resilience using a sample of 877 high-risk youth aged 12, 14, and 16 involved in the Denver Youth Survey. Data collected from participants, determined to be at high-risk for maladaptive outcomes due to the "socially disorganized" communities from which they came (i.e., overcrowdedness, poverty, high mobility, and

high crime rate), were collected from measures of academic performance (i.e., self-reported grade point average), self-esteem (youth-report questionnaire), mental health and behavior problems (caregiver questionnaire), delinquency, and drug use (youth report questionnaires). Participants were 53% male and primarily of ethnic minority status (i.e., 47.6% Hispanic, 34.9% African-American, 8% White, 2.7% Native American, 1.3% Asian, and 5.4% classified as "Other").

Two constructs emerged as being indicators of resilience, one being antisocial behavior as characterized by gang involvement, delinquent behavior, drug use and self-esteem and the other being adjustment, indicated by academic performance, self-esteem and parental ratings of student behavior. These two constructs were negatively associated, and self-esteem was found to play a role in both. Self-esteem was found to be positively associated with academic and behavioral performance as one might expect; however, self-esteem also was positively associated with delinquent behavior, gang involvement and drug use. The researchers surmised that the social benefits of engaging in gang and delinquent activities may support enhanced self-esteem as do academic and behavioral success.

A limitation of this investigation concerns the fact that a large portion of the data came from self-report and may contain some inaccuracies as a result (e.g., self-report of grade point average, self-report of drug use and gang involvement). In addition, not all individuals fitting the inclusion criteria participated, introducing a potential response bias, and generalization of findings is limited largely to ethnic minority groups and those from the neighborhoods with the highest levels of crime. Regardless, Tiet's and Huizinga's

(2002) examination provided empirical confirmation that delinquency is a variable in the prediction of resilient versus less adaptive outcomes in certain high-risk adolescent populations.

Limited parental supervision and structure. As discussed in further detail later in this text, family cohesion and positive parent-child relationships clearly can serve as a buffer against poor adjustment in children and adolescents (Duncan, Duncan, & Strycker, 2000). Authoritative parenting, which is characterized by acceptance/involvement, firm control and psychological autonomy, has been linked with many positive outcomes, such as higher grades in school, self-reliance, less anxiety and depression, and lower involvement with delinquent behaviors (Steinberg, Mounts, Lamborn, & Dornbusch, 1999). This finding crosses race, gender, and socioeconomic lines.

Children and adolescents fare less well when parenting styles are too strict without a component of warmth (i.e., authoritative parenting style) or too lax in terms of structure while being high in warmth and coddling (i.e., permissive parenting style). Baumrind (1999) conducted a rather comprehensive study of parenting style and adolescent outcomes, collecting data from parents and children when the children were aged 4, 9 and 15 years. At the final data collection point, 139 predominantly Caucasian and middle to upper class adolescents and their parents participated. Parents completed questionnaires about personal qualities of themselves and their children, as well as parenting practices that resulted in their being classified into one of six parenting categories (i.e., authoritative, democratic, directive, "good enough," nondirective, and unengaged). The adolescents also were surveyed on a number of academic (e.g., verbal

and math achievement, achievement motivation), behavioral (e.g., drug and alcohol use, externalizing and internalizing behaviors), and emotional variables (e.g., self-esteem, locus of control, maturity), in addition to perceptions of their parents in several areas (e.g., restrictive, loving).

Adolescents from parents in both the nondirective (N=7; 3 girls and 4 boys) and unengaged (N=30; 12 girls and 18 boys) categories scored significantly less well across the domains examined. Specifically, teens with nondirective parents (e.g., most like the permissive parenting style with medium warmth and low structure and limit-setting) were significantly less achievement oriented, as well as being less competent, self-regulated, and socially responsible. They had the highest rate of admission to the use of alcohol and drugs next to the adolescents of unengaged parents and perceived their parents to be the least restrictive.

Adolescents of unengaged parents, those who were either neglecting or rejecting and disinterested in child-rearing responsibilities, were found to have the highest incidence of externalizing behavior problems including drug and alcohol use, and were lowest on measures of cognitive competence and achievement. These teens were characterized as being socially immature and disengaged and as having an external locus of control. The females, in particular, were found to suffer from internalizing problems to a significant extent.

Incidentally, these two groups of parents had the highest rates of divorce, (86% of the nondirective, 60% of the unengaged parents) and the nondirective mothers were the most likely out of the six parenting types to work outside the home (i.e., 80%). These two

factors, divorce and mothers working outside the home, certainly could hinder parental supervision practices and steadfastness in terms of disciplining procedures, both being risk factors contributing to decreased resilience in children. Baumrind (1999) purported that the two characteristics of authoritative parents that, if present in parents with less adaptive styles can serve a protective function, are strong mutual attachments that persist through adolescence and "coherent, consistent management policies including supervision and discipline" (p. 55).

Morrison, Robertson, and Harding (1998) also found a significant link between the parenting practices of supervision and involvement and academic and behavioral resilience. These researchers were interested in the influence of self-concept, readiness and bonding to school, social support, and parental supervision in aggressive students who were deemed either high or low on school learning and performance as determined by teacher report. Data collected from 56 Latino students (34 males, 22 females) in the fifth and sixth grades included Likert-type questionnaire items about their classroom readiness behavior, academic and non-academic self-concept, school bonding, number and function of social supports and perceptions of the level of supervision they received from parents. Four items from the National Educational Longitudinal Study Survey were used to address the supervision area, including questions about parents checking on homework completion, having to do chores around the house, and having limits put on television watching and spending time with friends. Analyses of variances, using gender and group membership (i.e., aggressive/low-school-learning, aggressive/high-school-learning) as independent variables revealed that students' perceived parental supervision

was significantly different between groups. Specifically, the students in the high-school-learning group perceived higher levels of parent supervision compared to students in the low-learning group.

While school bonding was not found to be significantly different in the two groups, academic self-concept, social support and parent supervision were significant factors. To explore the relative importance of each factor in discriminating between students in the two groups, a stepwise discriminant function analysis was performed, predicting student group from academic self-concept, social support, and parental supervision. Perceived parental supervision correctly classified 64.8% of the cases, the largest percentage of the three entered variables.

Findings from this investigation are limited in that the sample included only Hispanic students and was relatively small in size. The authors noted that the way in which the sample was selected, by looking at the extreme low and high groups, resulted in a smaller than desirable number of participants.

The existing literature firmly supports the notion that lack of parent involvement and supervision places children and teens at risk for a host of negative outcomes that go beyond general welfare of the child and fulfillment of academic expectations. As can be seen from the above information, perceptions of parental supervision can be as important of an influential factor as the actual level of structure and supervision afforded.

Community violence. Exposure to community violence is another factor that puts students, particularly those in less advantaged and urban neighborhoods, at risk for negative outcomes. When it goes beyond witnessing violence into personal victimization,

even graver results ensue (O'Donnell, Schwab-Stone, & Muyeed, 2002). Recent studies have documented that a shockingly large percentage of children have witnessed significant acts of crime and violence. For example, Osofsky, Wewers, Hann and Fink (1993) reported that upwards of 70% of children surveyed in an inner-city area had seen a weapon being used and 40% reported having seen a dead body. Schwab-Stone et al. (1999) found that 74% of inner-city youth reported feeling unsafe in several everyday community settings and 40% had personally witnessed violent acts, such as shootings and stabbings, being committed.

The rate of youth fatalities from criminal acts is alarming as well, considering that homicide is the second leading cause of death among 15 to 19 year-olds and the third among children aged 5 to 14 years. Fortunately, adolescent deaths from firearm injuries have decreased in recent years, particularly among the highest risk groups, Black and Hispanic males (i.e., from 126 to 52 per 100,000 for Black males, and from 49 to 22 per 100,000 for Hispanic males from 1994 to 2000) (Federal Interagency Forum on Child and Family Statistics, 2003).

O'Donnell, Schwab-Stone, and Muyeed (2002) examined resilient outcomes in 1,855 sixth, eighth and tenth graders from 19 middle and high schools in an eastern, urban public school system who completed measures relating to 10 areas of interest (i.e., parent support, school support, peer support, future expectations, substance abuse, school misconduct/delinquency, depression/anxiety, somatization, self-reliance, and interpersonal relations). Students were members of one of three groups, either having no exposure to violence, having been a witness to violence/crime, or having been a victim of

a violent/criminal act themselves. Data were collected using scales created for the purposes of the study and from items adapted from published measures such as The Social and Health Assessment (Weissberg, Voyce, & Kasprow, 1991), Jessor's School Health Study, (Jessor et al., 1989), and the Behavioral Assessment System for Children (Reynolds & Kamphaus, 1992). A multilevel structural model was tested using separate latent structural coefficients for each of the three groups, for the purpose of estimating the structural relations among the 10 risk and protective constructs listed above.

Demographically, the witness group and the victim group shared similar backgrounds with each other and were significantly different from the no contact group. Witnesses to violence were more likely to 1) be Black, 2) be receiving free or reduced school lunches, and 3) have repeated a grade. The victim group shared these three characteristics and, in addition, they were more likely to be male.

In terms of the relationships between group membership and the risk and protective variables under examination, the victim group was significantly different from the witness and no contact groups, who were similar to one another across most areas. Those comprising the victim group fared significantly less well than the witness and no contact groups, demonstrating lower future expectations, a higher use of alcohol and other drugs, a greater tendency to demonstrate behavior problems in both school and community settings and higher incidences of depression, anxiety and somatization. As O'Donnell, Schwab-Stone, and Muyeed predicted, all three support indices (i.e., parent, school, and peer supports) most impacted resilience outcomes for the victim group, followed by the witness and then the no contact group. For example, parent support was a

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strong predictor of resilience in the areas of self-reliance, substance abuse, school misconduct and depression for the two exposure groups. Similarly, in the victim group, peer support was predictive of strength in the areas of future expectations, self-reliance and interpersonal relations. Interestingly, across all three groups, peer support exerted a negative influence on substance abuse and school misconduct. The researchers offered the explanation that the violence-exposed groups may be involved with similarly at-risk peers who experience limited parental supervision, thus increasing the likelihood of involvement in delinquent behavior.

Many more nuances in findings resulted from this comprehensive investigation. Perhaps the most important information on which to concentrate for the current purposes, however, is the fact that violence-exposed children, particularly those who have experienced violence firsthand, seem to benefit most by the positive supports in place (e.g., parental support's influence on lower rates of substance abuse) and are most negatively affected by the deleterious aspects (e.g., peer support's relationship to problem behavior).

This study was limited in that it drew from an inner-city population and, therefore may generalize only to similar settings. In addition, domestic violence was not addressed in this investigation, something that likely contributes further to at-risk status in youth, and it relied solely on self-report data.

As can be seen by the risk research reviewed here, a number of variables have been studied in a variety of different ways for the purpose of identifying those factors that interfere most with resilient functioning. Factors such as low socioeconomic status and

single-parent households, grade retention, antisocial behavior and delinquency, low parental supervision, and community violence clearly have been linked to compromised outcomes in at-risk populations. What follows is a review of the literature with regard to protective factors found to best support resilient outcomes.

Protective Factors

IQ. According to Masten and Coatsworth (1998), IQ is one of the two most widely reported predictors of resilience along with relationships with caring adults. Being able to take a broader perspective on one's experiences and employ problem-solving skills effectively, both related to level of intelligence, would appear to be helpful in negotiating stressful life experiences. In fact, Masten and Coatsworth (1998) reported that children and adolescents with higher IQs that experience diversity may fare better due to being able to problem-solve and protect themselves better, attract the interest of teachers, and employ better self-regulation skills (e.g., monitoring and shifting attention). They also purported that good intellectual functioning may serve a protective function in that it requires a variety of information-processing skills likely to be useful for coping with adversity. While the processes underlying the connection between good intellectual functioning and resilience are complex, intelligence is clearly linked with a number of positive outcomes including higher academic achievement, appropriate behavioral conduct and avoidance of delinquent conduct, ability to handle stress, and social competence (Freitas & Downey, 1998; Garmezy et al., 1984; Masten & Coatsworth, 1998; Masten et al., 1988). Conversely, Masten and Coatsworth (1998) indicated that children with worse than average intellectual functioning are more likely to encounter

difficulties learning from experience, negotiating challenging situations, and maintaining a sense of success and academic engagement.

Attributions. Attributions are causal beliefs held by individuals about both the positive and negative events that occur in their lives (Weiner, 1984) and, like many other beliefs and attitudes, once formed, these self-statements can become relatively automatic and unquestioned. Research supports that attributions influence academic achievement, motivation and persistence, emotional well-being and self-esteem, and even general health, all indicators of resilient outcomes (Carlyon, 1997; Fielstein, et al., 1985; Seligman, 1991; Turner, Pickering, & Johnson, 1998; Weiner, 1985).

Attribution theorists posit that individuals assign meaning to events along several dimensions, each impacting the person's level of optimism, self-efficacy and approach to similar tasks or events in the future (Forsterling, 1985). Weiner (1984) identified four different attributional styles people can ascribe to their own performance in a given situation. Performance (e.g., earning a good grade on an exam) can be explained due to internal or external factors (e.g., within child versus environment) and stable or unstable factors (long-lasting versus short-term). For example, an individual who holds an internal, stable attribution believes that success is due to ability, such that being smart enables one to earn good grades. Someone with an internal, unstable attribution may ascribe performance to effort, thinking that working hard to learn the test material resulted in good performance. One with an external, stable attribution style might believe that a good score on the exam was due to his or her tendency toward being lucky (e.g., only the items studied were on the exam), while an external and unstable

attribution may lead one to think that success is due to something that varies, like task difficulty (e.g., the test was so easy, everyone did well). Weiner also added the global versus specific dimension with regard to the situation or event, global meaning more broad (e.g., across settings and people) and specific meaning more restricted in nature (e.g., with one subject or in one setting only).

Endorsing the same attributions described above for failure experiences has very different implications and, clearly, it is more damaging to one's sense of self to attribute failure to internal, stable and global factors (e.g., failing the exam was due to low ability which will always interfere with performance across subject areas). Research strongly supports that the healthiest style, resulting in the most resilient attitudes, is to ascribe successes to internal, stable and global factors and failures to external, unstable causes in more circumscribed or specific situations (Forsterling, 1985; Seligman, 1991).

Through his own extensive research, Seligman (1975, 1991) supported this theoretical framework and added the element of controllability, introducing the notion of learned helplessness. Relying on external factors to explain both success and failure experiences and, more specifically, not seeing the connection between one's responses and the outcomes that result, can lead to helplessness in the form of cognitive, motivational, and behavioral deficits. Pessimism and depressed affect also result from such an explanatory style (Forsterling, 1985; Seligman, 1975, 1991).

Attribution theory posits that individuals constantly are assessing situations and events and assigning meaning to their experiences. Again, a healthy explanatory style is one that allows for successes to be attributed to internal, stable and global factors over

which an individual has control. Conversely, negative or failure experiences are best

attributed to factors that are external, unstable and specific, or to internal factors that are

under the individual's control (e.g., amount of effort). Having a more adaptive attribution

style provides protection in that it allows the individual, including the at-risk individual,

to maintain feelings of competence and to persist in the face of challenging circumstances

(Seligman, 1991).

Family Attachment/Cohesion. Past research has identified many benefits of close

family connections supporting the notion that these relationships serve a protective

function for at-risk youth. Determining exactly which factors contribute to this protective

role (e.g., communication, parenting style, supervision, involvement in schooling

process) has been a focus for many researchers to date.

Cashwell and Vacc (1996) aimed to analyze the family factors that contribute to

teens' involvement with deviant peer groups and delinquent behavior. Using Patterson's

(1982, 1986) Coercion Theory as a model, Cashwell and Vacc looked at family

adaptability, cohesion and satisfaction as variables involved in the relationship between

family relationships and adolescent criminal involvement hoping to provide more

information to build on Patterson's theory. This theory purports that the family

environment and parenting styles exert an influence on the child's interpersonal style

which, if it is coercive in nature, will affect peer selection (after potential rejection from

typical peers) and involvement in delinquency.

Cashwell and Vacc (1996) collected data from 111 adolescents, aged 12 to 16,

from two non-clinical agencies and a middle school. Participants were given a number of

self-report measures, including Olsen et al.'s (1992) Family Adaptability and Cohesion

Evaluation Scales II (FACES-II), a deviant peer involvement measure developed by the

researchers, and Hendelang et al.'s (1981) Self-Report Delinquency Measure. Teachers

were asked to report information about participants' level of coercive interpersonal style

as well. From the analyzed data, a path analysis was devised and the strongest correlation

was found to exist between deviant peer involvement and delinquent behavior. Family

cohesion, the family variable with the most statistical impact in the model, correlated at

the .05 level with delinquent behavior and correlated negatively, at the .01 level, with

peer involvement. The authors concluded, therefore, that family cohesion is indeed a

significant predictor of delinquent behavior, especially as it impacted the adolescent's

involvement with the deviant peer group.

One limitation of this investigation, however, was that the sample came from

school and non-clinical settings with no information about the participants' involvement

with delinquent behavior being required at the outset. It is unclear how many of the 111

participants had deviant experiences to the extent that meaningful conclusions could be

drawn, as consent to participate was reported to be the only inclusion criterion used.

In addition, most of the measures utilized in this study were self-report indices

about rather sensitive information (e.g., involvement in delinquent acts, involvement with

deviant peers). When reporting about these areas, the participants may have been

reluctant to share details in an effort to look good or avoid consequences, even though the

responses were explained to be anonymous.

Duncan, Duncan, and Strycker (2000) also looked at the contribution of family variables to adolescents' display of problematic behavior which, in their investigation, consisted of alcohol and marijuana use, academic failure, and deviant behavior (e.g., skipping school, running away from home). Using data from 1,044 adolescents and their parents, who completed the U.S. National Youth Survey each year over a five-year period, the investigators collected data regarding demographic factors (i.e., gender, marital status, family income), family variables (i.e., time spent with family, perceptions of family support), peer factors (i.e., parent knowledge of friends, time spent with friends, friends' deviance, time spent in organized activities), as well as a rating of neighborhood problems (e.g., vandalism, burglaries and thefts, traffic). The adolescent sample was comprised of males (53.5%) and females ranging in age from 11 to 17 years with a mean age of 13 years. The sample was largely white (81%) and from two-parent families (86%).

Duncan, Duncan and Strycker (2000) used second-order latent growth modeling analyses and found, focusing on the conclusions about familial influence, that adolescents who endorsed the fewest problematic behaviors rated significantly higher on family support and time spent with family. The surveyed adolescents who fared the worst were those who spent more time with friends, had deviant friends, were the older participants of the sample (i.e., participants in their later teens), and came from single-parent and/or higher-income homes, largely behaviors and circumstances that may go against family involvement and cohesiveness.

Given the negative impact on resilience that delinquent and problematic behaviors have for adolescents, improving family cohesion and feelings of support, perhaps partially through strengthening the home-school connection, is an intervention direction worth continued consideration. These less tangible family processes indeed exert a strong protective influence on children's academic gains and personal outcomes.

School belongingness. The role of belongingness in an individual's academic motivation and performance is receiving increased recognition in the literature to date. Goodenow (1993a) defined school belongingness as "the extent to which students feel personally accepted, respected, included and supported by others in the school social environment" (p. 80). Belongingness results from reciprocal social relations between students and adults leading to a sense of community, and research supports the notion that belongingness is a potentially critical factor in grade retention and school performance of at-risk students. Wehlage (1989), who used the term "school membership" to identify attachment to the school community, indicated that students who find themselves not fitting in with the mainstream school culture and those who feel socially isolated from peers and school adults, in particular, have higher disengagement and eventual drop out rates.

Goodenow (1993a) developed a measure addressing this construct, the Psychological Sense of School Membership (PSSM) Scale and tested it in three separate studies with adolescent students. Study 1 consisted of all sixth, seventh, and eighth grade students (N=454) in a largely White suburban middle school, comparing school belongingness scores with students' effort and grades in English and general social

standing as reported by teachers. In the second study, 198 randomly selected seventh graders in School A, a school with a large minority population (45% African American, 16% Hispanic, 33% White, 1% Asian) participated while 103 seventh grade students, also randomly selected, participated from School B. In School B, 75% of the participating sample was Hispanic, 7% were African American, 15% were White, and 1% was Asian. In this investigation, the relationships among school belongingness, expectations for academic success, and the value students placed on learning were examined. A third study, also using the PSSM, looked at teachers' perceptions of student effort and report card grades after the first quarter and again at the end of the year, in addition to absence and tardiness indices, and involved all fifth through eighth graders (N=611). No information was collected about the students' ethnicity, clearly a limitation inherent in this study, but the sample came from the same school as in Study 1, consisting of a largely White student body.

Taken together, results from these studies indicated that school belongingness played a role in behavior, academic performance and, most notably, in the motivational level of the participating students. Specifically, results from Study 1 revealed that English grades and students' level of academic effort, as perceived by teachers, was positively related to feelings of belongingness, as measured by the PSSM. Similarly, the two indices of student motivation, self-report of expectancies for success and value placed on learning, were strongly correlated with school belongingness. Study 3 revealed that academic effort and actual performance across five subject areas was significantly related to belongingness. School absences and tardiness were weakly but significantly related as

well. Overall, while behavioral indices (i.e., absences, tardiness) were found to be related to belongingness in a limited way, academic effort and motivational variables were most strongly related.

Goodenow (1993a) noted that one's sense of school membership may affect school academic and behavioral performance indirectly through its influence of motivation and expectancies which is an important addition to the body of literature. While the PMMS is unique in that it assesses what Goodenow identified as the intersection between personal and social variables involved in school belongingness, further studies are needed to support the generalization of findings to more racially different groups of students.

Extracurricular involvement. Masten and Coatsworth (1998) called for further research to be conducted about the relationship between resilient outcomes and participation in extracurricular activities. They indicated that more support needs to be provided for the common assumption that such involvement can be protective in that it supports a connection to school, involvement with adults and positive peer groups, and increased self-efficacy. The authors postulated that, through being able to display one's individual talents and connect with peers who share similar interests, a better sense of competence and greater rule-abiding behavior would result.

Braddock, Royster, Winfield and Hawkins (1991) looked specifically at the relationship between participation in extracurricular sports activities and academic resilience versus academic resignation in a large sample of African American males. Data were collected using the National Education Longitudinal Study survey, which was

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administered to a randomly selected group of eighth grade students from a nationally

representative sample of middle schools (also determined through random selection). The

researchers looked at the African American males' responses only (N=1,140),

determining their involvement in athletics and employing multiple regression analyses to

estimate the effect of athletic participation on academic resiliency as measured by a

number of indices. These included a measure of educational aspirations (e.g., anticipation

of finishing high school, intentions to go to college), peer status (e.g., level of perceived

popularity among classmates), and academic investment (e.g., level of academic effort,

attendance, interest in subjects). Braddock et al. also statistically controlled for a number

of relevant variables that could affect availability of and access to athletic programs (e.g.,

school size, socioeconomic status of students, urbanicity, student test scores).

Of the students surveyed, 57% (N=650 of 1,140) participated on interscholastic

sports teams and 53% (N=604 of 1,140) played intramural sports, some participating in

both. Those students involved in either or both of these two groups of extracurricular

activities were found to be more likely than non-participants to enroll in academic or

college preparatory programs in high school and to plan to attend college. They also

reported enjoying feelings of importance and popularity from their classmates to a greater

degree, and scored higher on some indices of academic investment (i.e., less involved in

conduct problems, more likely to enjoy classes, less likely to be thought of as not

demonstrating effort) that suggest greater motivation and engagement in proacademic

norms and behaviors as compared to non-participants. It should be cautioned that because

this sample included African-American males in eighth grade only, it is questionable

whether these results would generalize to females, students of other racial groups, or students involved in sports activities in the later grades when they may take on an even greater level of importance and availability in schools. Further investigations are necessary to see if the same results apply.

A recent study by Guest and Schneider (2003) examined extracurricular participation, looking at both athletic and non-athletic activities, and its influence on academic achievement and educational ambition. The researchers also examined contextual variables (i.e., percentage of students from the school that have gone to college and school community's socioeconomic status) that contributed to achievement and ambition. As part of the Alfred P. Sloan Study of Youth and Social Development (a 5-year longitudinal study of middle and high school students in the sixth, eighth, tenth and twelfth grades by the University of Chicago), students (N=6,453) had completed the Teenage Life Questionnaire, a modification of instruments used in the National Education Longitudinal Study. The researchers collected data regarding the students' participation in extracurricular activities, their perceptions about whether they thought they were seen as a "good student" and as "athletic," control variables (i.e., gender, race, parents' education, course sequence in mathematics, misbehavior, and grade level), and the contextual variables mentioned above. The outcome variables of achievement and expectations were measured by grade point average (GPA) and students' self-report of educational plans following high school.

Data from a subsample of tenth and twelfth grade students (N=2,925) were analyzed using hierarchical linear modeling. The following conclusions were empirically

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supported, the most important of which, according to Guest and Schneider (2003), is that outcomes impacted by extracurricular participation are indeed dependent on social context. Specifically, results indicated that, while GPA was positively associated with overall involvement in extracurricular activities, participants involved in sports activities were more likely to be seen as good students at schools with low academic expectations in poorer communities, while participants in non-sports activities were more likely to be viewed as good students when higher expectations and higher socioeconomic status were characteristic of the schools.

Beyond participation, athletic identity was found to influence the model significantly. That is, while athletic identification was associated with GPA and educational expectations, the direction varied across settings. Students having a strong athletic identity fared best (e.g., achieved higher grades, aspired to higher education levels) in the middle-class schools. The investigators found that, in wealthier schools and schools where a high percentage of students go on to college, an athletic identity was negatively associated with GPA. Guest and Schneider (2003) hypothesized that athletic identification may be detrimental to the "portfolio" of a good student and associated with a lack of academic commitment in these settings. Non-sports extracurricular involvement varied somewhat across school contexts, but was more consistently related to both higher academic achievement and higher educational aspirations.

Guest and Schneider (2003) indicated that a limitation of their study resulted from the fact that the data came from a pre-existing data set and, thus, they were not able to gather additional data or conduct follow-up inquiries. While the researchers were able to

investigate the students' athletic identities, for example, they were not able to gain any information about different activity-based identities that formed through non-sports extracurricular involvement, which they hypothesized was just as important as athletic identity in serving a protective function.

In sum, involvement in extracurricular activity has been found to contribute to positive outcomes for many students who participate in them. Lower drop out rates, better performance in school both academically and behaviorally, increased social involvement, and higher academic investment (e.g., taking college-bound coursework, being seen as exerting effort), are just some of the benefits associated with participation in such activities (Braddock et al., 1991; Guest & Schneider, 2003; Masten & Coatsworth, 1998).

Conclusion

Researchers interested in the risk and protective mechanisms that detract from or promote resilience, respectively, have examined numerous variables thought to make an impact. Factors including low socioeconomic status and family composition, participation in delinquent behaviors, grade retention, low parental supervision and structure, and crime and violence in one's community all have garnered support as risk mechanisms that potentially contribute to lowered resilience. Positive factors such as good cognitive functioning, healthy attribution styles, family cohesion and school bonding, and involvement in extracurricular activities have been found to serve a protective function, actually increasing the likelihood for resilient outcomes in at-risk individuals. The more empirical support that can be gained for this interplay of variables

with specific populations, the better the intervention efforts can be for promoting resilient student outcomes.

Chapter Three

Method

This chapter includes a description of the Alternative Education Program and the participants involved in the study, followed by information regarding the variables assessed and the tools used for data collection. The procedures that were followed to conduct the investigation, as well as information about the statistical analyses used to examine the data, also are described.

Description of the Alternative Education Program

The participants for this investigation were recruited from a large school district in southwestern Florida. Students requested to take part in the study included all of those who were enrolled in the Alternative Education Program in the county who fit the inclusion criteria outlined below and for whom parental permission, teacher consent, and student assent were granted. This Program serves a population of students who have undergone a Change of Placement meeting after either having presented with long-standing, chronic behavioral problems that school staff could no longer tolerate, or after having committed an offense that led to immediate expulsion. Such offenses include bringing a weapon to school, threatening the safety of a fellow student or staff member, or engaging in physical fights, for example.

At the Change of Placement meeting, administrators and staff involved in the incident or incidents make a determination about the best school placement for the student based on the severity of the offense and other pertinent circumstances (e.g., safety of students, the offender's response after the incident). The Alternative Education Program is designed to educate those students for whom a change of placement is warranted resulting from significant behavioral misconduct. The goal of this Program is to provide students with behavioral difficulties an opportunity to regain their privilege to receive instruction in a regular education setting. While enrolled in the Program, students are required to complete academic work, attend regularly, and follow rules of school conduct. Specifically, in order to exit the Program, students must maintain a C average in all academic areas and acquire zero behavior referrals during the semester in which they are trying to exit and return to their community schools. While involved in the Program, students have access to guidance counselors and school psychologists for support services, and intervention groups have been offered (e.g., anger management, social skills) periodically, though not with consistency due to staffing limitations. Students who participate in these services are identified by educational staff as struggling and in need of extra support to reach the goal of exiting the Program.

A considerable amount of change has occurred in recent years in terms of the physical plants and educational staff utilized for the Alternative Education Program in the county. Shifts in the administrative hierarchy and the allocation of buildings for the Program have resulted in students and staff moving between established and new sites. At the time this research project took place, there were four main educational centers

housing students in the Program, each similar in terms of the demographic characteristics of the students, including sex, age, socioeconomic status (as measured by free/reduced lunch eligibility), and involvement in special education. Three of the four sites consisted of large groupings of portable classrooms, while the fourth site (Site 2) was in a traditional school building. Each had an overrepresentation of minority students, males, and those of low socioeconomic status.

Participants

In the present study, a sampling of students attending the four sites in the 6th through the 11th grades (the range within which approximately 95% of the students fall) who fit the following set of criteria were requested to participate. Each of the participating students was enrolled in the Program for at least one full month, a minimum length of stay for the student to become oriented to the requirements and begin working through the components of the Program in order to return to their sending schools.

Second, students who were receiving services to support a learning disability, an emotional handicap, or a speech/language disability, or students in gifted education, all were eligible for inclusion in the study. Those excluded were students who were experiencing more severe handicapping conditions (e.g., Educable Mental Handicap, Serious Emotional Disturbance). Students with only the more mild disabilities were included so that a potentially more accurate assessment of students' perceptions of their at-risk status and their resilient capacities could be ascertained. Students for whom English is a second language were excluded from the study only if they were in the most restrictive segment of the Program (i.e., those students in section "C," but not those in

"A" or "B," were excluded) in order to minimize the potential variability that could be introduced by limited comprehension of the measures.

Exclusionary criteria also applied to those students who were involved in categories of the Alternative Education Program that addressed issues other than behavioral interventions. There were other Programs, including the Teen Parent Program and the Drug Rehabilitation Program that fell under the umbrella of Alternative Education but were not involved in the intervention program specifically designed for students with behavioral difficulties at school. In addition, only students in one of the four main Alternative Education sites were included. In special circumstances, students attending the Program are housed in portables around the County. Inclusion of these students' information, though similar demographically to that of the students at the four sites, introduced too much variability in terms of the services they may have been receiving.

A final exclusionary criterion addressed student attendance. Students with excessive absences (i.e., more than 50% of days absent in past month) were excluded because they were likely to have had a decreased opportunity to benefit from the Program and demonstrate to teachers their academic and behavioral functioning in the school setting.

Demographics of the Sample

The sample for this investigation consisted of 142 participants enrolled in one of four alternative education sites during both the Spring and Fall academic semesters of 2005 (i.e., March through May, October through December). Included for participation

were 68% males and 32% females who ranged in age from 11 to 17 years (M=14.06, SD=1.23) and were enrolled in the 6th through the 11th grades (M=7.88, SD=1.26). A vast majority, 85% of students in the sample, qualified for some level of free/reduced lunch eligibility and 34% were eligible for special education services (e.g., speech/language impairment, specific learning disability, gifted). While IQ scores were not available for all students, 44 scores were able to be accessed in the County's Student Information System (SIS) and these scores ranged from 70 to 135 (M=96.75, SD=17.04). Table 3 presents a detailed compilation of the participants' demographic characteristics categorized by the alternative education site.

To determine whether data analyses could be completed using the entire sample as a single, representative group, chi square analyses were conducted to detect any existing demographic differences by site. No significant differences in frequencies were found between the students at the four sites with respect to sex, special education status, or free/reduced lunch eligibility; however, the racial composition among sites was found to vary. Using the Phi statistic to balance the unequal cell sizes, Sites 3 and 4, which were located in more rural areas, differed significantly from Sites 1 and 2, in urban settings, in their racial configuration (χ^2=14.571, p= .001). Because the sample size in these rural sites was so small (i.e., combined N=34), conducting separate analyses by site was not feasible; however, a cautious interpretation of the overall results with respect to this more rural subsample is indicated.

Table 3 - Demographic Data for Sample (by N and Percentage) by School Site

Demographic Characteristics	Categories	Site 1 N=62	Site 1 %	Site 2 N=46	Site 2 %	Site 3 N=23	Site 3 %	Site 4 N=11	Site 4 %	TOTAL %
Gender	Male	43	69.4	34	73.9	11	47.8	9	81.8	68
	Female	19	30.6	12	26.1	12	52.2	2	18.2	32
Grade	6th	16	25.8	8	17.4	2	8.7	0	0	18
	7th	15	24.2	8	17.4	2	8.7	0	0	18
	8th	17	27.4	19	41.3	9	39.1	2	18.2	33
	9th	9	14.5	9	19.6	5	21.7	8	72.7	22
	10th	5	8.1	1	2.2	4	17.4	0	0	7
	11th	0	0	1	2.2	1	4.3	1	9.1	2
Race / Ethnicity	White	16	25.8	5	10.9	10	43.5	8	72.7	28
	Black	33	53.2	26	56.5	10	43.5	2	18.2	50
	Hispanic/Latino	7	11.3	13	28.3	2	8.7	1	9.1	16
	Multiracial	6	9.7	2	4.3	1	4.3	0	0	6
Age	11	1	1.6	0	0	0	0	0	0	<1
	12	11	17.7	5	10.9	0	0	0	0	11
	13	12	19.4	13	28.3	3	13.0	0	0	20
	14	19	30.6	12	26.1	11	47.8	2	18.2	31
	15	14	22.6	12	26.1	5	21.7	4	36.4	25
	16	5	8.1	3	6.5	4	17.4	5	45.5	12
	17	0	0	1	2.2	0	0	0	0	<1
Eligible for Free/Red. Lunch	Yes	53	85.5	40	87.0	19	82.6	8	72.7	85
	No	9	14.5	6	13.0	4	17.4	3	27.3	15
Eligible for Spec. Education	Yes	19	30.6	18	39.1	6	26.1	5	45.5	34
	No	43	69.4	28	60.9	17	73.9	6	54.5	66

Variables Selected for Examination

Following a review of the literature regarding the risk and protective factors commonly linked with poor and favorable outcomes, respectively, 13 variables initially were selected for examination in the current study. Because not enough IQ scores were available to conduct worthwhile analyses (N=44), this variable was dropped, resulting in 12 total variables being assessed.

Cowen and Work's (1988) Resiliency Model posits that three separate categories of factors -- personal, family, and external or community factors -- serve as risk or protective factors in determining an individual's adjustment and resilience to stress. Using this model as a guide, the following risk and protective factors are outlined using the same categories.

Risk Factors

Risk factors selected for this study are found in Table 4. A combination of information, gathered either from archival records or directly from the students in a questionnaire format, was collected about potential risk factors they were experiencing personally, as well as those that influenced them from a family or community standpoint. Individual factors included the type of the offense that resulted in enrollment in the Program and grade retention. An indication of involvement in the juvenile justice system also was determined through a records review.

Table 4 – Individual, Family and External Risk Factors Selected for Study

Risk Factors		
Individual: • Juvenile record • Type of offense • Retention	Family: • Parental structure • Family composition	External: • Community violence • Perceptions of violence

Family factors selected as predictor variables included family composition and parental structure and rules. The external factors that were chosen both involved community violence. One factor was an indication of the students' own exposure to and experience with violence in the communities in which they were living, while the other was a statistical indication of violence reported in each student's community.

Protective Factors

Protective factors examined in this investigation are found in Table 5. In terms of individual factors, information about the students' attributional beliefs and perceptions of physical appearance were gathered in questionnaire format from the students themselves. Data regarding family cohesion, level of school belongingness and extracurricular community involvement also were collected via the questionnaire.

Table 5 – Individual, Family and External Protective Factors Selected for Study

Protective Factors		
Individual: • Attributions • Self-perceptions of physical appearance	Family: • Family cohesion	External: • Extracurricular involvement • School belongingness

Control Variables

Demographic data about students' sex, race, age, and involvement in special education were collected and included as control variables. Racial/ethnic status coding was 1 for White and 0 for Non-White/Minority. Sex codings were assigned as 0 for females and 1 for males. Special education status was coded as 0 for Not Eligible and 1 for Eligible, as was eligibility for free/reduced lunch.

Outcome Variables

A main construct of interest in this study was student resiliency. Resiliency, for the purposes of the present study, was defined as relatively successful performance in several areas despite being at-risk for school and personal failure. The students' at-risk status was defined by their involuntary placement in an educational setting that focuses on ameliorating behavioral problems. Clearly, having to be sent to this "last stop" before expulsion from the school district is indicative of the level of risk for negative outcomes that the students face. The areas under examination included each student's overall level of resilience, behavioral functioning, and reading achievement.

Data were collected using the Behavioral and Emotional Rating Scale, Second Edition (BERS-II, 2004) which was completed by the students' teachers. The BERS-II subscales, described below, measure students' functioning across academic, behavioral, social, and intrapersonal and affective areas and, together, provided a composite score that served as an overall indicator of resilience. Composite scores from the current sample ranged from 43 to 134 (*M*=97.11, *SD*=17.74).

An indicator of academic competence, students' FCAT Reading scores, and their

behavioral functioning, number of total behavior referrals to date, also served as

dependent variables along with the BERS-II scores. Reading scores ranged from 100 to

386 (M=253.81, SD=55.35) and total number of referrals ranged from 2 to 117 (M=34.30,

SD=23.03).

Measures Used in Data Collection

Data pertaining to each of the variables were collected either archivally, from a

published measure (e.g., BERS-II), or from a questionnaire designed by the author to be

completed by students. See Table 6 which outlines data sources for each variable.

Archival Data

Data from archival records primarily came from the County's Student Information

System (SIS), a database of student information accessible to the Program's school

psychologists and other staff members. Information collected from this system included

students' retention records, type of offense resulting in placement, special education

status, eligibility for free/reduced lunch, and sex and racial status information. The

researcher took information from the SIS and created a separate database, described

further below, using only student numbers for identification purposes to protect

participant confidentiality. See Appendix A for a summary of the information taken from

the SIS and the specific codings assigned for each (e.g., 0= student has not been retained,

1=student has been retained).

The type of offense resulting in placement in alternative education was

determined by an examination of students' documented referral histories which were

Table 6 – Data Sources or Measures for Each Selected Variable

Data from Student Information System (SIS)
Racial status (C)
SES (Free/reduced lunch status) (C)
Sex (C)
Reading FCAT scores (O)
Number of Behavior Referrals (O)
Type of Offense (R)
Special Education Status (C)
Retention (R)
Involvement in Juvenile Justice System (R)
Data from Community Criminal Statistical Records
Community violence (R)
Data from Child Attribution Style Questionnaire (CASQ)
Attribution style (P)
Data from Social Behavioral and Emotional Rating Scale (BERS-II)
Overall indicator of resilience (O)
Data from Student Questionnaire (developed for study)
Perceptions of physical appearance (P)
Family cohesion (P)
Extracurricular school and community involvement (P)
School belongingness (P)
Parental structure (R)
Perceptions of violence in the community/victimization (R)

<u>Key</u>: C=Control variable; P=Protective factor; R=Risk factor; O=Outcome variable

contained in the SIS. On each student's record, a categorical name (e.g., weapons possession, battery against adult) and a brief description of the sending offense was listed, and the researcher coded each participant's offense as either chronic or acute in nature. See Table 7 for a listing of offenses and the categories to which they were assigned and for information regarding the frequencies and percentages of each infraction among the sample.

Table 7 – Categorization, Frequencies and Percentages of Students' Acute and Chronic Offenses

Category	Specific Incident/ Offense	N	Percent Total: Within Category	Percent Total: Combined Categories
Acute (N=102)	Weapons Possession	22	21.6%	16.8%
	Battery Against Adult	16	15.7%	11.8%
	Battery Against Student/ Fighting	14	13.7%	10.3%
	Threat/Intimidation	12	11.8%	8.8%
	Major Incident/ Inappropriate Behavior[1]	11	10.8%	8.1%
	Disobedience/ Insubordination[2]	8	7.8%	5.9%
	Theft/Breaking & Entering	6	5.9%	4.4%
	Drug Possession	7	6.9%	5.1%
	Sexual Offense/Harassment	5	4.9%	3.7%
	Vandalism (Gang-Related)	1	1%	0.7%
Chronic (N=34)	Continuous Disruptive Behavior (CDB)	24	70.6%	17.6%
	Profanity	5	14.7%	3.7%
	Disrespect/Noncompliance[2]	5	14.7%	3.7%

[1]The Major Incident/Inappropriate Behavior category included offenses such as pulling the fire alarm, putting laxative drops in other students' drinks, and throwing a chair down a stairwell, for example, which were incidents that could inflict harm on others.

[2]The Disobedience/Insubordination category was used for serious insubordination, such as students leaving campus or trespassing on campus property after having been suspended from school.
Disrespect/Noncompliance was for behaviors less serious and more chronic in nature (e.g., not following the dress code).

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Student involvement in the juvenile justice system also was ascertained from the SIS. Because information about juveniles' criminal involvement is difficult to access for legal and ethical reasons, information for this variable was collected by determining whether each student had been placed in a detention center school. Such placement is a requirement resulting automatically after a student has been arrested. If records indicated that the student had been placed in a detention center school at any point, therefore, he or she was coded as having been involved with the Juvenile Justice Department in some capacity.

Information relating to community violence was collected from a national website (www.bestplaces.com) that provides statistical data about a variety of topics, among them education, housing, environment/climate, economics, and also crime rates. All information is accessed by entering the zip code of interest. Thus, participants' zip codes were used to identify in which neighborhoods they resided, and data were collected with regard to violent and non-violent or property crimes committed in their communities. Data reportedly taken from the Federal Bureau of Investigation, Uniform Crime Statistics, was transformed into ratings presented on the website, which were calculated by combining the number of violent and property crimes per zip code area. Crimes that went into the violent category included: murder and non-negligent manslaughter, forcible rape, robbery, and aggravated assault. Crimes making up the non-violent/property category included: burglary, larceny-theft, motor vehicle theft, and arson.

On the website, a rating of 1 is the lowest (i.e., fewest crimes by zip code) and 10 is the highest (i.e., greatest number of crimes by zip code). The ratings for the national

average for violent and nonviolent/property crimes both were 3 and, for the larger metropolitan area in which the study took place, scores were 6 and 5, respectively. The ratings for the participants' zip codes in the current sample spanned from 3 to 8 for violent crimes (*M*=6.99, *SD*=1.14), and 2 to 8 for non-violent/property crimes (*M*=6.7, *SD*=1.75). In order to limit the number of variables in the current study, only the violent crime ratings were included in the regression models, described later in this chapter. The reasoning behind this choice was that the researcher wanted to get a sense of how much the students in the sample felt personally threatened by the crimes against people that they were perceiving in their neighborhoods.

Published Measures Used in Data Collection

Behavioral and Emotional Rating Scale, Second Edition. Teachers from the Alternative Education Program were requested to participate in this investigation by completing the Behavioral and Emotional Rating Scale, Second Edition (BERS – II; Epstein & Sharma, 2004) for the participating students. The BERS is a 52-item Likert-type questionnaire designed for individuals aged 5 to 18 years assessing five areas of strength: interpersonal strength, family involvement, intrapersonal strength, school functioning, and affective strength. The measure can be completed in approximately ten minutes by an individual who knows the child or adolescent. Table 8 provides descriptions regarding what each subscale purports to measure.

The BERS-II Teacher Rating Scale was normed in 1996 on a sample of 2,176 typical students (i.e., those not identified with emotional or behavioral disorders) and 861 who had diagnosed emotional and/or behavioral disabilities. Both samples were carefully

matched with the school-aged population on a number of characteristics (e.g., educational attainment of parents, family income, geographic area, race, special education status) and evidence of reliability and validity for the measure was established in several investigations. For instance, Epstein, Harniss, Pearson and Ryser (1999) documented test-retest reliability for the BERS as being between .85 and .99 across the five subscales when teachers rated students twice in a two-week period. Inter-rater reliability coefficients in this study also were consistently above .80.

Table 8 – Description of Content Included in BERS-II Subscales

Subscale	Description	Sample Items
Interpersonal Strength	Assesses the child's ability to control his/her emotions or behaviors in social situations	• Accepts no for an answer • Reacts to disappointments in a calm manner • Loses a game gracefully
Family Involvement	Assesses the child's participation in and relationship with his/her family	• Participates in family activities • Interacts positively with siblings • Demonstrates a sense of belonging to family
Intrapersonal Strength	Assesses the child's outlook on his/her competence and accomplishments	• Is self-confident • Is enthusiastic about life • Identifies own feelings
School Functioning	Assesses the child's competence with school and classroom tasks	• Pays attention in class • Completes school tasks on time • Attends school regularly
Affective Strength	Assesses the child's ability to accept affection from others and express feelings toward others	• Accepts a hug • Asks for help • Shows concern for the feelings of others

Adequate convergent validity was evidenced when the BERS was compared with the Walker-McConnell Scale of Social Competence and School Adjustment – Adolescent Version (Walker & McConnell, 1995), and the Teacher Report Form of the Child Behavior Checklist (TRF; Achenbach, 1991). Correlations between the BERS and the Walker-McConnell ranged from .50 to .75. For the BERS and the TRF, correlations ranged from .39 to .72 (Harniss, Epstein, Ryser, & Pearson, 1999).

Reliability analyses were conducted with the teacher-completed BERS-II in the current study. All scales were found to have Cronbach alpha levels above .85, with a value of .96 for the Total Strength Index. Scores for students in the current sample were compared to the typical or non-behavior-disordered normative group rather than the group formally identified with emotional/behavioral disorders. This was done because, while they have committed serious behavioral infractions, the majority of students in alternative education have not been found eligible for services to address an emotional/behavioral disorder. In the current sample of students, only 9 out of 142 students, or 6%, were categorized as having an Emotional Handicap (EH) and none were eligible for a diagnosis of Seriously Emotionally Disturbed (SED).

Children's Attributional Style Questionnaire. To measure students' attributional styles, a variable hypothesized by this investigator to serve a protective function, the Children's Attributional Style Questionnaire (CASQ) (Seligman, 1991) was used. This scale contains 48 forced-choice items aiming to identify the attributional style children may endorse to explain the outcomes of their behavior (see Appendix B). One example

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of an item is: (a) "You get an A on a test." with the answer choices "I am smart." and "I am smart in that subject." Three explanatory dimensions are examined on the CASQ: internal versus external, stable versus unstable, and global versus specific. The two explanations provided for each item hold two of the explanatory dimensions constant while varying the third. In the above example, stability and internality dimensions are held constant, whereas the global-specific dimension is varied. Sixteen events pertain to each of the three explanatory dimensions, with half of the items depicting negative outcomes and half describing positive ones.

The measure furnishes six scores: level of internality, stability and globality for positive events, and internality, stability, and globality scores for negative events. A composite explanatory style is calculated for both positive and negative events, and an overall explanatory score (CPCN) is obtained by subtracting the composite negative (CN) score from the composite positive (CP) score. The lower the CPCN, the greater is the child's maladaptive attributional style. That is, lower CPCN scores indicate that the child tends to explain negative events in terms of internal, global and stable characteristics, while explaining positive events in an external, specific, and unstable manner. In the current sample, CPCN scores ranged from -9 to 14 with a mean score of 4.71 (SD=4.42).

The coefficient alphas for the CP and CN scales are .66 and .50, respectively (Seligman et al., 1984), evidencing rather poor internal reliability. Test-retest data (N=96) indicated that from initial testing to testing conducted six months later, the correlations for the positive (i.e., good events) and negative (i.e., bad events) were .71 and .66, respectively (Peterson & Seligman, 1984). While available psychometric data

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indicate that the reliability and validity of the scale are not very strong, it is the most widely used measure currently available to provide attributional data (Nolen-Hoeksema, Seligman, & Girgus, 1986).

Poor reliability on the CASQ was an issue with the current study as well. The coefficient alphas (N=141) were .33 and .37 for the CP and CN scales, respectively. After conducting an item analysis and removing nine variables on the CP scale and four on the CN scale that were found to most highly detract from the scales' reliability, alphas were again calculated and found to be .51 and .53. Next, mean scores were created for the Total Scale and compared with the original Total Scale scores. The two sets of scores were highly correlated (r=.93); however, the regression analyses were conducted a second time using the mean scores instead of the original CPCN scores to lessen the chance that a potentially significant finding would be missed because of poor reliability of the measure. Nevertheless, no changes in the significance level of the models resulted from this substitution.

Student Questionnaire Created for Study

After reviewing available measures and questionnaires that addressed the information of interest (e.g., Omnibus Student Survey, Multidimensional Self Concept Scale {Bracken, 1992}, Youth Risk Behavior Survey), a questionnaire was devised by the researcher with originally-worded items addressing each of the domains for which data could not best be collected in an archival fashion or through the use of published scales. The 45-item student questionnaire can be found in Appendix C. Scores for all

items (with the exception of the family composition questions) were summed for each scale for the purpose of data analyses.

The questionnaire was designed to collect information from participants regarding the risk variables of family composition, parental structure, and perceptions of community violence. The family composition item consists of a check-list where the student is asked to indicate all of the adults with whom he or she currently lives. This information was transferred into the database in the form of categories that described the type of family of which the student was a member (e.g., two biological parents, a biological parent and a step-parent, other relatives). The specific codings for this variable are found in Appendix A. Additional questions about the number and type of siblings (e.g., biological, step) also were asked, as well as a question about the number of children presently living in the student's home. These items were not used in the current analyses, however, as the main focus of interest was on discerning the relationship between single versus two-parent households and the outcome variables of interest.

The scale assessing parental structure includes items about the level of supervision the student feels he or she experiences (e.g., homework help, knowledge about where parents can be found when not at home) as well as the degree to which parental rules are enforced (e.g., curfew, bedtime). The perceptions of community violence items address the student's direct experience with crime and police protection in his or her neighborhood (e.g., police patrolling, presence of gangs, crime committed against his or her family).

The questionnaire also is comprised of items addressing the following protective variables: perceptions of physical appearance, family cohesion, extracurricular involvement, and school belongingness. The scale examining perceptions of physical appearance looks at the student's body image, his or her interest in dressing and looking nice, and general physical feelings (e.g., tiredness, clumsiness). The family cohesion scale aims to measure how much time the student and his or her family spend together and enjoy participating in joint activities. A question also addresses the frequency with which family members or other individuals move in and out of the household. Items on the extracurricular involvement scale look at the student's participation in religious activities and activities held at local community centers (e.g., YMCA, Boys and Girls Club). School-related extracurricular activities were not included here because clubs and sports activities typically are not offered in alternative education, so little opportunity for engagement in these activities was likely. Finally, the school belongingness items addressed the student's interest in coming to school and self-perceptions about how well he or she is liked by teachers and students at the school.

Prior to use of the measure in this investigation, a group consisting of school psychologists in the district in which the study took place were asked at a county-wide staff meeting to review the items to determine whether they appropriately measured the domain they were purported to assess. Twelve psychologists agreed to volunteer to review each item and provide their opinions about readability and face validity. In order to determine whether individual items fit under the domain area to which they were intended by the researcher, raters were provided with a list of items and domain

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categories in random order and were asked to match each item with its domain (See Appendix E). In order for an item to be retained, 75% of raters had to match it with the intended domain. To ensure that items were clear and readable, item ratings included the following categories: "excellent," "good," "fair," and "poor." Only those items rated by all reviewers as either "excellent" or "good" were kept as part of the final measure. All items were retained as they met each criterion without exception.

Once this step was completed and the final draft of the questionnaire was prepared, a sample of 10 adolescents aged 12 to 15 years was asked to anonymously complete the measure, with the verbal permission of their parents, so that preliminary analyses of reliability could be conducted and any issues surrounding confusion with any of the items could be remedied. The adolescents approached for this trial use of the questionnaire were those with formally diagnosed psychological disorders who were participating in an outpatient social skills training group with which the researcher is regularly involved.

While this process gave some initial insight into problematic items, no items were deleted from the analyses until the 142 questionnaires were examined for the total sample. By calculating item-total statistics for each of the six scales on the measure, it was determined that four of the six would benefit, in terms of rendering higher alphas, if one particular item was deleted from each. See Table 9 for descriptive information about these scales, including the alpha levels for each. The reliability levels of the scales created for the study are adequate or better, but none reach the level of .80 that is

desirable for concluding that the scales are indeed reliable in measuring the proposed

constructs (Gall, Borg, & Gall, 1996).

Table 9 – Descriptive Information about Student Questionnaire Scales

Category	*M*	*SD*	# of items (original # of items)	Min-Max	Normality: Skewness	Normality: Kurtosis	Cronbach alpha:
Parental Structure	19.54	5.45	7 (7)	4-28	-0.73	.016	.79
Family Cohesion	12.45	2.98	4 (5)	1-16	-1.10	1.11	.65
Percept. of Community Violence	5.18	3.02	7 (8)	0-11	0.25	-1.02	.69
Percept. of Physical Appearance	8.32	2.23	6 (7)	0-12	-0.99	1.44	.58
Extracurricular Involvement	4.34	3.21	6 (6)	0-12	0.35	-0.78	.76
School Belongingness	4.56	1.38	3 (5)	0-6	-0.78	0.10	.54

Qualitative Interview

Gall, Borg, and Gall (1996) discussed the fact that phenomenological and

quantitative research are complementary, and it is felt that the qualitative piece in this

investigation afforded a richer understanding of students' experiences from their

perspective. After all data collection was completed and initial statistical analyses were

underway, the researcher selected approximately 5% of the total sample of participating

students (N=6), half of whom were found to be in the upper quartile and half in the lower

quartile in overall resilience scores, for the purpose of individual interviews. The student

interview questionnaire is a semi-structured tool developed by the researcher after an

initial perusal of significant findings from the quantitative portion of the study. That is, areas in which significant relationships between risk and/or protective variables and the outcome variables were found (e.g., parental structure, family cohesion) served as topics of further inquiry on the qualitative interview, as well as several follow-up questions addressing topics of interest (e.g., influential people in the students' lives, students' future plans and goals). Three sections were created that included questions about the student's school, family, and self-perceptions. A total of 22 questions were included on the interview form, most of which were open-ended in nature (See Appendix E). The interview form was reviewed by the researcher's committee members and changes were made based on the suggestions provided prior to its submission for formal approval.

Data Integrity

The database created for the current study included cells for each participant's demographic information and scores, and this information was utilized in the statistical analyses using the Statistical Package for the Social Sciences (SPSS). Descriptive statistics were calculated for each variable to determine whether coding errors and/or outliers were present. Any data identified as having been miscoded was corrected or coded as missing data.

Much of the SIS data were read from the computer screen by the school psychologist at Site 1 as the researcher typed it directly into the database created for the study. This process was employed as the psychologist was much more skilled in navigating the computer program, and it allowed for the researcher simply to listen and enter the data rather than looking back and forth between databases, further lessening the

propensity toward error. An assistant to the researcher randomly selected 15% of the student and teacher questionnaires and compared scores to those entered in the database for inter-rater agreement purposes. Agreement totaled 100%, providing additional assurance that data were recorded and entered with integrity.

Procedure

Permission to conduct this study was formally requested from both the research review boards of the University of South Florida and the school district. Once permission was granted from both institutions' research divisions and the school principals, the researcher was provided access to the Student Information System (SIS) by the school psychologist at Site 1. The pertinent student information regarding the inclusion and exclusion criteria was accessed in order to create a listing of prospective participants. All students attending the Program in the two selected sites who were eligible were requested to assent to participate, with the assumption that permission would not be granted for all. It was felt that this selection process would more likely yield the necessary sample size better than randomly sampling from the student population.

Only 21% of the alternative education student body volunteered to participate, despite repeated requests and varied incentives. A second phase of data collection was necessary because less than half of the pre-determined number of students participated in the initial phase when only two sites were included (N=70; 10% of available population). Following the first phase of data collection occurring in the Spring, permission was granted by the Institutional Review Boards to conduct a second phase of data collection that included access to two additional Program sites (i.e., Sites 3 and 4).

During each data collection period, the researcher either by herself or in tandem with the school psychologist working at the different sites entered all classrooms and briefly explained the nature of the study and the incentives designed to draw student participation. The parent form describing the study and requesting permission for their children's participation (See Appendix F) was sent home with the students in large brown envelops at this time. Multiple visits were made to the classrooms during the two semesters of data collection (i.e., March through May and October through December). The purpose of these repeated visits was to introduce the study to students who had not yet heard about it due to absence or suspension, and to provide reminders to students who had not returned their parent consent forms. Multiple parent consent packets were provided during these visits and additional packets were left with teachers in the event that students misplaced or did not receive theirs.

Next, students who returned signed parent consent forms (to their homerooms, the office, directly to the researcher or to the site-based psychologists) were approached by the researcher who provided a verbal and written explanation of the study (See Appendix G). Those students who had parent consent and completed the assent form were asked to complete the student measures. In small groups (e.g., 2 to 5 students) in a separate classroom during non-academic time, participating students completed the student questionnaire and the CASQ. The investigator was present each time to explain the directions, clarify items that were not understood, and provide assistance to those who needed help with reading the items. Completion of both measures took between 15 and 30 minutes in each small group. Students worked on their questionnaires separately and

were seated far apart to prevent sharing of answers. The researcher collected the forms upon their completion and examined them with the students still present to ensure that all items were answered and that none had multiple responses.

Teachers of students who were involved in the investigation were approached by the researcher at a regularly scheduled faculty meeting and were requested to complete the Behavioral and Emotional Rating Scale, Second Edition (BERS-II; Epstein & Sharma, 2004). For those teachers who provided written consent (See Appendix H), directions were administered by the researcher and teachers were given the names of students for whom they were requested to complete the measure. By examining class rosters, it was determined with which students the teachers were most familiar, and then a roughly equal number of forms were randomly assigned to each teacher. The teachers were asked to complete the measures as soon as possible and return them to the school psychologists' mailboxes. The school psychologists and the researcher provided both written and verbal reminders to those teachers who delayed returning their forms. Thirty-seven teachers participated fully   (Site 1: N=14, Site 2: N=11, Site 3: N=8, Site 4: N=4), while a small number initially agreed but did not return their rating forms despite multiple reminders. In most of these cases, the forms were distributed to participating teachers, also familiar with the given students, who were willing to complete additional measures. This was not possible in all cases, however, resulting in missing data for 7 of the 142 students on this measure (5%).

During both the Spring and Fall data collection phases, students were informed that they were able to put their names into a raffle box for returning their parent forms

and completing their questionnaires. After all measures were collected, three to four students from each school were awarded gift certificates to a national fast food restaurant and a video store. This was done at the close of both phases of data collection.

During the first data collection period, participating teachers were involved in a similar raffle where $50 was awarded to a teacher at each of the first two sites. In the second semester, all teachers at the four sites who participated were given a card and small gift of appreciation (i.e., packaged cookies or candy). This change, explained before the teachers agreed to participate, was made as it was felt by the researcher that all teachers should be recipients of a gesture of thanks rather than just one individual per school. These merely were incentives to increase involvement in the completion of the measures and tokens of appreciation for students' and teachers' time and efforts.

The qualitative portion of the investigation followed the second data collection phase. The researcher submitted a new set of parent consent and child assent forms along with the qualitative student interview form to the University's Institutional Review Board, for which approval was granted. Roughly 5% of the sample (N=6) was selected by the researcher for participation in this final phase of the study. First, a list of potential interviewees was compiled by determining who among the total sample scored in the upper and lower quartiles on the BERS-II. Plans were to interview six students from Site 1 who were eligible and available, and it also was intended that one female student per quartile group would be included. A number of the eligible students (based on BERS-II score falling in the upper or lower quartile) were not available due to being suspended or arrested, or because they had returned to their community schools at the close of the Fall

semester. Therefore, the researcher approached students at Sites 2 and 3 as well. Site 4 was excluded because of the small number of participants and the fact that Site 3 would represent the rural sample sufficiently.

Six of the targeted students were contacted by the researcher about the purpose of the interview and were given the new consent forms to take home to their parents (See Appendix I). Four of the six students' parents were contacted directly to let them know that their child would be bringing home the permission form. This was done to minimize the number of trips to the schools that the researcher would be required to make to complete the interview process. Two sets of parents were not contacted because their children returned the signed permission form the very next day. An additional two sets of students and their parents who were indirectly contacted (i.e., form left with teacher to give to student, voicemail left by researcher on a mother's cell phone) were invited to participate but did not respond. Both of these students were in the lower-scoring group on the BERS-II. The researcher stopped recruiting participants when six students had provided parental consent and were scheduled to be interviewed.

The individual interviews took place over a two-week period in an empty portable or classroom at Sites 1, 2, and 3, each taking roughly 20 minutes to complete. Students were presented with the child assent form to review and sign (See Appendix J) prior to the initiation of the interviews. Each interview was tape recorded and then transcribed verbatim by the researcher for subsequent analysis. The six participating students were thanked and each received ten dollars upon completion of their interviews.

Chapter Four

Results

The purpose of the current study was to identify risk and protective factors related to resilient outcomes for at-risk students in an alternative education program. A total of 12 individual, family and external factors were selected and analyses were conducted to determine how these variables were related to outcomes in three specific areas: level of resilience, number of behavior referrals, and academic achievement in reading.

The results of this investigation is presented in three sections, the first of which contains a reporting of the results of data analyses conducted to address the research questions. The significant relationships uncovered among the risk, protective and outcome variables is summarized next and, finally, a reporting of the information gleaned from the qualitative student interviews is presented.

Data Analyses

Overview of Analyses Conducted

Using a multivariate correlational design, the aim of this study was to determine the degree to which the selected risk and protective factors were related to resilient functioning for students in an alternative education placement. To identify the specific individual, family, and external risk and protective factors that shared a significant relationship with the outcome variables, multiple regression analyses were conducted.

This statistical analysis requires that the dependent variable is continuous (i.e., composite score) but allows for the independent variables to be either continuous or categorical (e.g., reason for placement in alternative education). Once variables with the strongest inter-relationships can be identified, appropriate intervention directions may be more easily devised based on this knowledge.

The first hypothesis, that there are individual, familial and community risk factors that compromise resilient functioning, was tested by performing three multiple regression analyses (MRA). For all three, the first variables entered into the model in Step 1 were those controlling for the relationship of demographic variables with the outcome measures. When the resilience score on the BERS-II was the outcome variable, students' race and sex served as the controls. With the dependent variable of behavioral referrals, age was an added control variable, and with the reading achievement dependent variable, special education was among the group along with race and sex.

In Step 2 for each of the analyses, individual risk factors (i.e., type of offense, juvenile record, and retention status) were added, followed by family risk factors (i.e., family composition, parenting structure) in Step 3, and external risk factors (i.e., community violence, perceptions of violence) in Step 4.

The second hypothesis that there are individual, familial and external protective factors that relate to the measured outcome variables also was examined using three MRAs. As in the first regression analysis, the variables of race and sex (and also age and special education eligibility with behavior referrals and reading achievement, respectively) were entered into the model in Step 1. In Step 2, individual protective

factors (i.e., attribution style, perceptions of physical appearance) were added, followed by the family protective factor (i.e., family cohesion) in Step 3. External protective factors (i.e., extracurricular involvement, school belongingness) comprised the final block of variables entered in Step 4.

A moderator variable then was created to address the third hypothesis regarding significant protective factors serving to moderate risk and lead to better outcomes for those experiencing high risk in a given area. This was accomplished by multiplying the one significant risk factor from the regression model assessing risk and resilient status with the significant protective factor. A separate regression analysis was conducted including new moderator variable. The control variables were entered into each model first, followed by the risk (Step 2) and the protective factor (Step 3). Finally, the moderator variable (i.e., the cross-product of the risk and protective factor) was entered.

For the qualitative portion of this study, the content of the transcribed interviews was analyzed by the researcher and a Ph.D.-level school psychologist who volunteered to provide assistance. The process selected for extracting meaning from the students' interview responses was reflective analysis (Gall, Borg, & Gall, 1996), an open examination of the responses which allows for the development of themes or categories helpful in understanding the construct under evaluation, in this case, resilience.

Each interview transcript first was read separately by the researcher and the assistant for overall familiarity with and understanding of the content. The transcripts subsequently were examined for emerging themes in the three areas of school, family, and self-perception. Extensive notes were taken and emerging themes were recorded in

written format. After this process took place individually, the researcher and assistant met and each interview was examined jointly. Thematic notes were compared and similarities and differences among students' responses were identified. Together, the researcher and assistant identified similarities among responses based on the BERS-II quartile (i.e., upper or lower) to which the interviewee belonged, as well as identifying responses that distinguished the two groups from one another. Information was organized in table format and is summarized later in the chapter.

Research Question 1

To what degree are the identified individual, family, and external risk factors related to student outcomes, specifically with regard to:

        a.)   resilience status,

        b.)   behavioral referrals,

        c.)   reading achievement?

The first research question aimed to identify the degree to which the selected individual, family and external risk variables were related to student outcomes. More specifically, it addressed whether the individual risk factors of severity of sending offense, involvement in the juvenile justice system, and grade retention, along with the family factors of parental structure and family composition (i.e., caregivers with whom the child lived), and the external factors related to neighborhood crime (i.e., perceptions of and actual crime), were related to resilience scores, behavioral referrals, and reading performance. This query was exploratory in nature and, therefore, the hypothesis was that

some combination of the selected risk variables would show a relationship with one or all of the outcome variables. Table 10 provides a comprehensive look at the beta coefficients, R^2 values and levels of significance for the control and risk variables for each of the multiple regression analyses.

The R^2 of .084 from the first multiple regression (MR) analysis, which examined the relationship between the individual, family, and external risk variables and overall resilience, was not significant, $F(9,126) = 1.187$, $p = .31$, indicating the combination of the identified factors did not explain a significant amount of variance in the scores of student resilience. While the overall R^2 was not significant, an examination of the coefficients indicated that parental structure was statistically significant with a beta of .197 ($p=.04$). Thus, the level of parental supervision and structure in the home was found to be related to more resilient functioning.

The second MR was conducted to determine the risk variables' combined influence on problematic student behavior. The same risk variables as above were entered into the model with the continuous dependent variable in this case being number of behavior referrals. Age of the student was a third control variable added to the first block, the rationale being that older students have a greater chance of being referred for disciplinary purposes given more time spent in school.

The R^2 of .168 calculated in this analysis was found to be significant, indicating that the combined protective variables accounted for almost 17% of the variance in number of referrals, $F(10,132) = 2.463$, $p = .01$. Despite controlling for it, age remained a

Table 10 – Regression Models for Individual, Family, and External Risk Variables and Outcome Variables

Step/Risk Factor	BERS-II (N=127)		Behavior Referrals (N=133)		Reading Scores (N=130)	
	beta	R^2	*beta*	R^2	*beta*	R^2
1. Controls		.017		.043		.135***
Sex	.093		.059		.012	
Race	-.028		.014		.160	
Age	--		.208*		--	
Spec. Educ.	--		--		-.294***	
2. Individual		.029		.094		.139**
DJJ	.080		.143		.030	
Offense	.031		.208*		.060	
Retention	-.069		.043		.063	
3. Family		.076		.119		.156**
Composition	.139		-.059		.092	
Structure	.197*		-.130		-.101	
4. External		.084		.168**		.183**
Com Vio.	.031		.200*		-.169	
Percept Vio.	-.086		-.107		.032	

Sex coded as 0=Female, 1=Male; Race coded as 0=Non-White, 1=White; Special Education Status coded as 0=Non-eligible, 1=Eligible; Family Composition coded as 0=Two Biological Parents, 1=Other

Betas presented are from the final step of the regression models.
*$p \leq .05$; **$p \leq .01$; ***$p \leq .001$

significant predictor, as did the severity of the sending offense resulting in alternative education placement and the rate of crime in the participants' neighborhoods. The conclusions derived from the significant results of this model, therefore, are that older students (*beta*= .208, *p*=.03), students who have a more chronic pattern of disruptive behavior (*beta*=-.171, *p*=.05), and students who come from neighborhoods where violent crime is highest (*beta*= .200, *p*=.03) are those with behavioral histories containing a greater number of referrals.

The final MR that was conducted to address the first research question assessed the risk variables' relationships with student reading scores. In this regression model, the combination of variables accounted for over 18% of the variance in scores, $R^2 = .183$, F (10,129) = 2.670, *p*= .01. The control variable of special education eligibility (*beta*= -.294, *p*=.001) was the single variable found to be significantly related to FCAT reading performance with those students involved in special education being more likely to demonstrate lower reading achievement.

Intercorrelations among the control, risk, and outcome variables were examined and are presented in Table 11. The largest correlation was found between students' age and retention status (*r* =.46, *p*<.001), indicating that older students in the sample were more likely to have repeated a grade. Older students also were more likely to have a longer behavior referral history, as anticipated (*r* =.18, *p*<.05), as were they more likely to have been eligible for special education services (*r*=.21, *p*<.05). Another expected correlation was found between reading achievement and special education status (*r* =-.27, *p*<.01).

Table 11 – Intercorrelations among Control, Outcome, and Risk Variables

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Sex	--												
2. Race	.11	--											
3. Age	.02	.16	--										
4. Special educ.	.20*	-.11	.21*	--									
5. BERS-II	.14	-.10	-.14	-.04	--								
6. Behavior referrals	-.01	-.01	.18*	.10	-.10	--							
7. FCAT reading	.05	.28	.03	-.27**	.02	.01	--						
8. DJJ involvement	.04	-.04	.11	.14	.13	.14	-.05	--					
9. Severity of offense	.09	-.09	-.05	.10	.07	-.17	.002	.14	--				
10. Retention	.05	.09	.46**	.002	-.08	.13	.08	.02	-.02	--			
11. Family composition	.18*	.14	-.01	.03	.16	-.08	.14	-.13	-.06	-.01	--		
12. Parental structure	.03	-.17*	.09	-.06	.21*	-.11	-.10	.13	.13	.11	-.06	--	
13. Perceptions of crime/violence	-.08	.11	.06	.05	-.05	-.15	.04	.05	.06	.04	-.06	.26**	--
14. Community crime/violence	-.23**	-.24**	-.14	-.04	.01	.19*	-.22**	.10	.04	-.002	-.14	.07	-.09

Along with being moderately correlated with resilient status ($r = .21$, $p<.05$), parental structure also was related to the participants' perceptions of crime in their communities ($r =.26$, $p<.01$). This finding suggests that the higher the structure in the home, the safer students perceived their neighborhoods to be. Actual community crime was not significantly correlated with perceptions of crime, but it did share a significant relationship with lower reading achievement ($r =-.22$, $p<.01$) and a higher number of behavior referrals ($r=.19$, $p<.05$). Students of minority racial status were more likely to report higher parent-imposed structure ($r=-.17$, $p<.05$), as well as being more likely to live in neighborhoods with a higher violent crime index ($r=-.24$, $p<.01$).

Research Question 2

To what degree are the identified individual, family, and external protective factors related to student outcomes, specifically with regard to:

　　　　a.)　　*resilience status,*

　　　　b.)　　*behavioral referrals,*

　　　　c.)　　*reading achievement?*

The second research question aimed to identify the degree to which the selected individual, family and external protective variables related to student outcomes. Its purpose was to address the way in which the individual protective factors of attribution style and perceptions of physical appearance, the family factor of cohesion, and the community factors of extracurricular involvement and school belongingness related to resilience scores, behavioral referrals, and reading performance. As with the analyses regarding the risk factors in the first research question, this query was exploratory in

nature and, therefore, the hypothesis was that some combination of the selected protective variables would show a relationship with one or all of the outcome variables. See Table 12 for a comprehensive look at the beta coefficients, R^2 values and levels of significance for the control and protective factors for each of the multiple regression analyses conducted to address this question.

Similar to the last set of analyses, three separate multiple regressions were conducted to determine the strength of the relationships between the individual, family and external protective and outcome variables. The R^2 for the first regression model, examining the relationship between the protective variables and student resilience scores on the BERS-II, was significant and explained almost 13% of the variance in resilience scores, $R^2 = .125$, $F (7,133) = 2.566$, $p= .02$. Only the family variable of cohesion (*beta= .192*, *p=.03*) accounted for a significant amount of variance beyond the control variable of sex (*beta= .201*, *p=.03*). Males and those students, either male or female, who endorsed having greater family cohesion received higher resilience scores as rated by their teachers.

In the second regression analysis addressing Question 2, the relationship between the identified protective factors and students' behavior referrals was examined. The overall R^2 of .072 was not significant: $F (8,135) = 1.235$, $p= .284$. The control variable of age entered in the first block (*beta= .208*, *p=.02*) was related to referrals with the number of referrals increasing significantly with the age of the student.

Table 12 – Regression Models for Individual, Family, and External Protective Factors and Outcome Variables

Step/Risk Factor	BERS-II (N=134)		Behavior Referrals (N=136)		Reading Scores (N=134)	
	beta	R^2	*beta*	R^2	*beta*	R^2
1. Controls		.035		.037		.143***
Sex	.192*		.004		.018	
Race	-.049		-.012		.219*	
Age	--		.208*		--	
Spec. Educ.	--		--		-.277***	
2. Individual		.063		.052		.145***
CASQ	.067		-.077		.021	
Physical	.008		-.094		.031	
3. Family		.111**		.053		.154***
Cohesion	.201*		.030		-.050	
4. External		.125*		.072		.187***
Extracurric.	.008		.147		.038	
Sch. Belong	.131		-.014		-.202*	

Sex coded as 0=Female, 1=Male; Race coded as 0=Non-White, 1=White; Special Education Status coded as 0=Non-eligible, 1=Eligible

Betas presented are from the final step of the regression models.
*p≤.05; **p≤.01; ***p≤.001

Results of the final MR indicated that almost 19% of the variance in reading achievement scores was accounted for by the overall model, $R^2 = .187$, $F(8,133) = 3.589$, $p = .001$. Beyond the control variables of student eligibility for special education, which again was significant (*beta*= -.277, *p*=.001), and racial status (*beta*=.219, *p*=.02), school belongingness was found to be significantly related to reading performance (*beta*= -.202, *p*=.03). Thus, special education eligibility and minority status both were related to lower reading achievement scores and, while the assumption might be that greater allegiance to school would result in higher reading scores, the reverse was true in the alternative education student sample.

Intercorrelations among control, protective and outcome variables were calculated and are presented in Table 13. Males tended to have better perceptions of their physical appearance (*r* =.26, *p*<.01), while attribution styles, regardless of sex of the student, were positively related to perceptions of appearance as well (*r*=.22, *p*<.01). That is, in addition to being a male, the more optimistic students are when explaining the good and bad events occurring in their lives, the more positive are their perceptions of their physical attributes.

Females were found to have significantly higher scores on the school belongingness scale (*r* =-.21, *p*<.05) as were students of minority racial status (*r*=-.17, *p*<.05). School belongingness was found to be negatively correlated with reading achievement (*r* = -.23, *p*<01) but positively correlated with attribution style (*r* =.28, *p*< .01). School belongingness also shared significant positive relationships with family cohesion (*r*=.34, *p*<.01) and overall resilience (*r*=.19, *p*<.05).

Table 13 – Intercorrelations among Control, Outcome, and Protective Variables

Variables	1	2	3	4	5	6	7	8	9	10	11
1. Sex	--										
2. Race	.11	--									
3. Age	.02	.16	--								
4. Special education	.20*	-.11	.21*	--							
5. BERS-II	.14	-.09	-.14	-.04	--						
6. Behavior referrals	-.01	-.01	.18*	.10	-.10	--					
7. FCAT reading	.05	.28**	.03	-.27**	.02	.01	--				
8. Attribution style	-.12	-.01	-.06	-.08	.14	-.10	-.04	--			
9. Perceptions of phys. appearance	.26**	-.06	-.05	.09	.11	-.10	-.01	.22**	--		
10. Family cohesion	-.03	-.20*	-.04	.05	.27**	-.002	-.17*	.30**	.21*	--	
11. Extracurricular involvement	-.07	-.30**	-.18*	.16	.06	.10	-.11	.06	.01	.12	--
12. School belongingness	-.21*	-.17*	-.01	-.09	.19*	-.004	-.23**	.28**	.003	.34**	.13

*$p<.05$, **$p<.01$

A significant relationship was found to exist between age and extracurricular involvement ($r = -.18$, $p < .05$), with older students being less involved than younger students in religious and/or community activities. In addition, more students of minority status endorsed frequent participation in these activities ($r = -.30$, $p < .01$).

A number of correlations were evident for the family cohesion variable. Family cohesion was found to be positively related to attribution style ($r = .30$, $p < .01$), perceptions of physical appearance ($r = .21$, $p < .05$), and minority status ($r = -.20$, $p < .01$). In addition, cohesion correlated significantly with the two outcome variables of reading achievement ($r = -.17$, $p < .05$) and resilient status ($r = .27$, $p < .01$). While participants scoring high on the cohesion variable were found to obtain higher scores on the resilience measure, the reverse was true for reading achievement; higher cohesion was related to lower reading performance for those in the sample.

Research Question 3

Do any of the identified individual, family or external protective factors serve to significantly moderate the effects of the individual, family or external risk factors on student outcomes with regard to:

    a) resilience status,

    b) behavior referrals,

    c) reading achievement?

In order to examine this question, one moderator variable was created by multiplying the one significant risk factor by the one significant protective factor for the outcome variable of resilience status. Only one moderator was created because both a

significant risk and protective factor need to be identified per outcome variable in order for a new variable to be made. Table 14 outlines specifically which variables were multiplied in order to create the moderator variable used in the subsequent regression equation. Beta coefficients and levels of significance also are included in this table.

Table 14 – Risk and Protective Factors Multiplied to Make Moderator Variable

Outcome Measure	Risk Variable	X	Protective Variable	beta (p value)
(BERS-II)	Parental Structure		Family Cohesion	.026 (.935)

As can be seen, the moderator variable, when entered into the regression equations, did not make a significant contribution. This indicates that, in this particular study with the variables measured the way in which they were, no significant interaction effects were found that would suggest that the presence of a protective factor served to moderate an otherwise poor outcome for students scoring high on a given risk variable.

Results of Qualitative Interview

A qualitative segment was included to supplement the quantitative findings that were uncovered in this investigation. Six participants who completed the student questionnaires were interviewed individually by the researcher. A semi-structured interview format was used (See Appendix E) in order to obtain richer descriptive information about the students' experiences in the Alternative Education Program. Questions about family experiences and individual perceptions of self also were included in the interview. Three students in the upper and three in the lower quartiles on the

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teacher-rated BERS-II were requested to participate in the interviews in order that

thematic comparisons could be made between the two groups. Demographic information

about the interviewees and a listing of their scores on each of the three outcome measures

are presented in Table 15. All of the students' names have been changed.

Common themes and distinguishing differences on school-related items. The

students interviewed provided similar responses to a number of questions in each of the

three domains being examined. Beginning with the school-related category, the

participants shared common likes and dislikes about their placement in an alternative

education school. Three of the six interviewees, two in the upper group, Raymond and

Rochelle, and one in the lower group Kevin, indicated that they liked the teachers in their

schools (each of these students were at different sites). Theodore and Becky, in the low

group, cited meeting people with similar problems as something they liked about being in

Table 15 – Demographic Information about Six Interviewees

Name	Site	Age	Grade	Race	BERS-II Score	Number of Behavior Referrals in Record	Reading FCAT scores
Jim	1	15	8th	African-American	131 (upper quartile)	42	205
Raymond	3	13	7th	African-American	108 (upper quartile)	13	259
Rochelle	1	14	7th	African-American	134 (upper quartile)	28	210
Kevin	2	13	6th	African-American	81 (lower quartile)	40	318
Theodore	2	12	6th	African-American	78 (lower quartile)	48	294
Becky	3	15	8th	White	86 (lower quartile)	33	273

the Program, while Raymond and Rochelle listed the specific classes (e.g., Social Development) and learning experiences they found useful. Being in the high or low group did not distinguish the students when their dislikes about the Program were examined. While Jim noted that he did not like the teachers at his school and Kevin disliked a particular aide who reportedly refers students to the office frequently, the rest of the students' responses had to do with the privileges they no longer received (e.g., P.E., art and music classes, having to go through security checks), the school environment (e.g., classes and offices in portables, running out of student lunches), and the social difficulties present there (e.g., arguing and fighting among students, students talking about and starting rumors about each other).

All six students agreed that having a teacher that shows an interest in them (e.g., wants them to do well, cares about them, likes them) makes a difference in the amount of effort they are willing to put forth to be successful in a given class. Common teacher qualities identified by members of both the high and low-scoring groups included a willingness to just spend time talking with students as well as offering help and encouragement. Several students expressed a desire to be both challenged and rewarded for their efforts, and one student, Becky, shared that teaching using games and activities is more helpful than having students "just sitting there and listening, cause not a lot of kids at my age like to sit here and just be bored." A salient theme that emerged when summarizing students' responses in this area was that they may not feel like they receive enough of an academic challenge in alternative education. Several students (e.g., Jim, Rochelle, Becky) indicated that they rarely are assigned homework or projects and

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Becky, in particular, voiced her concern that she is falling further behind students in the general educational setting to which she wants to return.

All six interviewees were able to express lessons they had learned in order to avoid another alternative education placement following their exit, and many of them had to do with considering the consequences of their actions more carefully. When asked about what he has learned from his experience, Raymond said, "Every action…there's a reaction, and everything you do have a consequence whether it's right or wrong." Similar sentiments were shared by Rochelle and Jim who noted that they did not want to come back, and getting in trouble was not worth the consequence of having to return. "Lessons learned" in the lower group were similar but, perhaps, more concrete in nature. For example, Kevin indicated that he learned not to bring contraband to school (the reason he was originally placed in the Program) and Becky wanted to remain in regular school so that she could take advantage of the activities offered there, such as field trips and cheerleading.

The only other distinguishing feature between groups on the school-related items was the degree to which the students expressed assuredness that they would be able to exit the Program and not return. While the three students in the high-scoring group provided a confident "yes" when posed this question, only one did so in the lower-quartile group. Kevin indicated that his success in staying at his next school would depend on which particular school he would be attending, while Becky offered a tentative, "I'm going to do my best" in response to this query.

Common themes and distinguishing differences on family-related items. While the school section of the qualitative interview garnered responses that were more similar than different between the high and low resilient groups, more disparity was evident on the family-related items. To begin with, all three interviewees in the resilient group were living with either both parents (married 22 years and 25 years) or one parent (i.e., mother) and two siblings. Each had two or fewer siblings in the household and no additional adults or extended family members living therein. In the low resilient group, none of the students' biological parents were together and all had multiple full, half- and/or step-siblings living in the home. While one student, Kevin, lived with his mother, aunt and two younger sisters, he had other biological and step-siblings living at his father's house. Theodore and Becky both lived in homes with one biological parent, one step-parent and different combinations of siblings. Theodore reported that he lived with two biological brothers, one biological sister, three step-brothers, and two step-sisters, while Becky said she lived with two sisters and three brothers, one of whom was a step and the others half-siblings. Becky shared that she has never met her father, nor does she know who he is.

With regard to birth order, two members of the high scoring group were the youngest child in their families, while one, Jim, was what he called "the meat," meaning that he was the middle child. In the low-scoring group, all three students reported that they were middle children.

A difference between the resilient groups also was seen in how much time the students spent in daily activities with their families as a group. The three students in the high-scoring group provided affirmative responses when asked about family time, leisure

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activities and dinners eaten together, while those students in the low group indicated that

less time was spent together during the week and fewer evening meals were shared

between them. Not only were the specific responses indicative of more time spent

engaged in family activities, but additional details were shared by the high-scorers

communicating that time spent with family members was positive for them. For example,

Raymond shared the following:

> My dad has a lot of side jobs so sometimes he's not home but I hang with my dad
>
> a lot and we always stay together, like we'll go out to eat, we'll go visit my
>
> grandma. We'll go different places together or just ride around in the car looking
>
> for a house cause he likes houses…we [the family] go to theme parks together, we
>
> watch movies together, go to the movies. We always have a good time, we laugh,
>
> play games…cards sometimes.

While Kevin and Theodore indicated that they spent time with family members

more on the weekends and ate together as a family on some nights, Becky shared that she

and her family did not spend much time together at all. Neither of her parents are at home

when she and her siblings return from school, and Becky's younger sister cooks their

meals each night. Becky indicated that after they eat dinner, her parents come home and

the activity in which they engage then is cleaning. Shopping (for food and clothing) was

another routine task she mentioned that they do together. Going to the beach in the

summertime was the singular leisure activity she was able to think of that they all do as a family.

All six interviewees indicated that they felt their caregivers' rules were fair, though two students in the low resilience group went on to say that their parent gets angry much of the time (i.e., Kevin) and that their punishments, including being grounded or having a valued possession taken away (e.g., computer, TV), last for an extended period (i.e., Becky). Commonalities were found in the types of household rules applied by parents between the groups of students. Things like doing chores (e.g., keeping bedroom clean, doing laundry, doing dishes), obeying a curfew, and completing work at school were said by multiple respondents. Raymond colorfully added that "keeping your nose clean" was an important rule in his household.

The final questions in the family section of the interview form addressed influential people in the interviewee's lives, both from within and outside of his or her family. Jim, Raymond, and Rochelle, the students in the high resilience group, named his father, both of his parents, and her maternal aunt, respectively. In the low group, Kevin was the only student to name an adult family member, his grandmother, who passed away as a result of a car accident. Theodore and Becky named family members much closer to their own ages, a male cousin and a sister, respectively.

As for influential people outside of the family, all interviewees selected a same-aged peer as having the most positive impact on them, with the exception of Becky who named a former male teacher who served as a support and role model in her life. While

two of the boys selected past or current girlfriends as influencing them in a positive way, neither girl's first choice was a boyfriend.

Common themes and distinguishing differences on items examining self-perceptions. In this section, participants first were asked to share personal strengths and areas they felt were in need of improvement. Five of the six students named specific sports as areas of strength, with all four of the boys citing football as their best sport. Two of the highly resilient students, Jim and Rochelle, shared that the way in which they talked to others and influenced them to make better choices was an area of personal strength. Two of the low scorers, Kevin and Theodore, included playing videogames in their list, while Raymond said that he was good at sleeping. All six students indicated without exception that math was their favorite subject and the one in which they performed the best academically.

In terms of areas in need of self-improvement, five of six students indicated that a change in their behavior and/or attitude was something on which they were actively working. Four of six students, two in the high and two in the low group, selected reading as the academic area most in need of improvement.

While all of the interviewees were able to name at least one person whom they could consider a friend and confidant, only two students, Jim and Raymond, indicated that they got along with others, both peers and adults, with ease. The remaining four revealed that they had trouble getting along with same-sex peers, in particular. All reported that it was easier for them to get along with adults than peers, with the exception of Theodore who conveyed that relating to both groups presented problems for him.

The last set of questions often is used in therapeutic settings as an informal and more projective way of assessing an individual's level of self-concept and optimism, as well as signaling any psychopathology (e.g., depression, anxiety) that the person may be experiencing (Barlow, Blythe, & Edmonds, 1999). All six interviewees were able to produce adjectives that described themselves, as others might see them, in a generally positive and seemingly realistic way. Kevin, in the lower group, came up with the most descriptors, providing three sets of adjectives for each of three groups: teachers, peers, and parents. Table 16 summarizes all of the students' responses to this question, as well as a question about future plans and goals and a question about three things each student would wish for if they knew their wishes would be granted.

Summary

The first two research questions addressed in this investigation were designed to identify the significant relationships between individual, family, and external risk and protective factors and three important indicators of student success: resilient status, behavioral functioning, and reading achievement. Six multiple regression analyses were conducted to examine these relationships, and four of the six models were useful in explaining significant amounts of variance in student performance or functioning based on combinations of the selected variables.

While the regression model was not significant for the combined risk factors' relationship with overall resilience (as measured by the BERS-II), parental structure in the home was found to be significantly linked with teachers' perceptions of student

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Table 16 – Summary of Responses to the Last Items on the Student Interview

Name	Adjectives Others Might Use to Describe Student	Future Plans	Three Wishes
Jim	Good person Easy-going	Truck driver Family Good bank account House	Be rich Be president Own a theme park
Raymond	Active Nice Respective	Professional football player Family	Get a girlfriend Be smart Have a great life
Rochelle	Loud Opinionated Helpful	Surgical technician College Make money Family (later)	Make lots of money Have her cousin get better Make her brother be a better person
Kevin	*Teachers:* Smart, a good kid who needs to get his act together *Peers:* Talks too much, always beating on things *Parents:* Annoying, helpful with sisters, a great track runner	College Professional football player Own a business (not sure what kind)	Get out of this school Become smarter Have his mother, who is ill, get better
Theodore	Intelligent Good at things Handsome	Mechanic Professional football player	Help poor people Help hospitalized people Teach kids to do right
Becky	Shy Funny Focused	College Massage therapist Family	Have her family act more like a family Not to go broke Pursue what she wants to do

resilience. The regression model examining risk factors and the outcome variable of behavior referrals was significant and the largest contributors to the explained variance were age of student, severity of sending offense, and violent crime reported in the students' neighborhoods. The model assessing the risk factors' relationship with reading achievement also was significant, with special education eligibility being a significant variable in the overall model.

With regard to the relationship between the combined protective factors and the outcome variables assessed, the regression models examining resilience and reading achievement were found to explain a significant amount of the variance in scores. Being a male student and endorsing strong family cohesion were two protective factors contributing to students' level of resilience, while racial status, special education eligibility and school belongingness accounted for differences in students' reading scores. Interestingly, school belongingness shared an inverse relationship with reading achievement in that the stronger one's reported feelings of belongingness, the lower one's reading FCAT score tended to be. Intercorrelations among control, risk, protective, and outcome variables shed some additional light on the relationships shared among these factors.

One moderator variable was created by multiplying the significant risk factor of parental structure and the significant protective variable of family cohesion together and conducting an additional regression analysis with level of resilience as the outcome. In this study, the presence of the moderator variable in the model did not contribute significantly to explaining any additional variance. Therefore, it was concluded that the

presence of the given protective factor (i.e., family cohesion) was not found to moderate the level of risk experienced by students who report having limited parental structure in the home.

Lastly, qualitative interviews were conducted with three students who scored in the highest and three scoring in the lowest quartiles on the BERS-II. This process provided added insight into and a richer description of the risk and protective factors these students are experiencing. While the students' circumstances were somewhat different, common themes were identified among the data. The interviewees shared common perceptions about the positive and negative attributes of the alternative education program with which they were involved. Participants reported that caring teachers who spent time talking with their students and motivating them to learn were more influential in making them want to perform well in school. All students were able to identify lessons learned or reasons why they wanted to avoid another placement in the Program, though the students in the high resilience group seemed more confident about the likelihood that this would occur.

The high and low resilience groups were distinguished from one another on the family variables of family composition and cohesion as well. The higher-scoring group had more students in intact families and families with fewer siblings, and they also reported spending more time in more varied activities with their families as a whole. The groups again looked similar when reporting the fairness with which they felt rules were applied and the types of rules and responsibilities they had at home.

The interviewees in both groups identified similar personal strengths which tended to include playing sports and excelling in math as opposed to reading. Almost all students admitted that they need to effect positive change in the display of their behavior and/or attitude. Students in the high resilience group reported having fewer social difficulties with peers and adults, though all students were able to name at least one same-aged peer with whom he or she shares friendship and trust. None of the identified friends were from the students' alternative education sites.

Answers to three questions regarding the words others would use to describe the student, the student's future goals, and three wishes for which the student would ask, provided an interesting window into students' self-perceptions of how they are viewed and what is important for them to attain in their lives. All were able to identify positive descriptors, general (though not always realistic) plans, and happenings (again, not always realistic) that they hope will occur for themselves and others.

Chapter Five

Discussion

The present study was designed to examine the relationships between risk, protective and outcome variables assessing resilience in a population of students at risk for school failure. This chapter summarizes the significant results, organized by research question, connecting these with previous findings in the literature. Potential implications for educators are detailed, followed by a presentation of the study's limitations and directions for future research.

Research Question 1

To what degree are the identified individual, family, and external risk factors related to student outcomes, specifically with regard to:

      a.)   *resilience status,*

      b.)   *behavioral referrals,*

      c.)   *reading achievement?*

The first research question was examined by looking at the combined effects of individual, family and external risk factors on each of the three student outcomes. It was determined that parental structure, the way in which participants experienced supervision and enforcement of rules in the home, was significantly related to students' resilience scores. That is, the more the participants felt that their parents structured the home

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environment by enforcing curfews and bedtimes, providing regular adult supervision, and helping with homework, the more resilience they were perceived to display based on teacher ratings. Information gleaned from the student interviews extended this finding, adding that students who viewed their parents' rules and consequences to be fair tended to score in the higher quartile on the resilience measure. Students in the lower group either judged parental decisions to be fair that were in their favor (e.g., getting TV privileges because of being the oldest boy in the home) or indicated that a parent gets too angry or extends punishments for too long.

Numerous research studies support the notion that there is indeed a relationship between parental structure and student functioning across several areas (Cashwell & Vac, 1995; Masten et al., 1988). Seminal research conducted by Patterson (1982) indicated that coercive parenting practices are associated with antisocial behavior and conduct disorder, characteristics that can severely limit others' perceptions that the student is resilient in dealing with exposure to risk. Mistry, Vandewater, Huston and McLoyd (2002) found that teachers rated the children of parents who were less able to use effective disciplinary practices as being less socially competent and as exhibiting a greater degree of problematic behavior in the classroom. Supervision practices were examined in a study by Morrison, Robertson and Harding (1998) and were found to be positively associated with learning outcomes, and Galambos, Barker, and Almeida (2003) found that parents' firm behavioral control halted the upward trajectory of externalizing behavior problems in adolescents with deviant peers. It becomes clear when reviewing the literature that parental supervision and structure, especially when coupled with

warmth and affection toward the child (Dunifon & Kowaleski-Jones, 2002; Mistry, Vandewater, Huston, & McLloyd, 2002), are vital in supporting behavioral, academic and emotional resilience in children and teens.

Exposure to neighborhood crime was another variable found to compromise student outcomes in the current study, specifically with regard to academic performance and behavioral functioning. Students who were living in neighborhoods with higher reported crime had significantly lower reading achievement scores and a greater number of behavioral infractions in their student files.

Findings from previous research substantiate that exposure to crime and violence in the community leads to a myriad of negative outcomes in children, including but not limited to academic and behavioral functioning. Ceballo and McLloyd (2002) found that as neighborhood conditions worsened, as measured by crime rate and police protection among other factors (e.g., socio-economic status of residents, perceptions of the quality of surrounding schools), mothers felt less social support and used more punitive punishment strategies with their children (e.g., yelling, threatening to hit or throw the child out).

Neighborhood conditions like poverty and crime not only directly affect child and adolescent adjustment but indirectly affect it through its impact on parental distress and childrearing, the school environment and, in the greater community, the economic opportunities to which students can realistically aspire (D'Imperio, Dubow, & Ippolito, 2002). It is hypothesized that being a witness to increased neighborhood crime and violence desensitizes students to it to some degree, leading them to view behavioral

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infractions (e.g., theft on campus, assault on peers and school staff) as less serious in nature. In the current study, neighborhood crime was linked with higher referrals to the office for disciplinary purposes, further supporting this hypothesis. In addition, academic achievement may be seen as less important in a world where "survival" trumps the importance of earning good grades.

Interestingly, a positive correlation was found to exist between parental structure and students' perceptions of violence in the community, regardless of actual reported crime. Students whose parents provided more structure and supervision in the home had more positive perceptions of a neighborhood unburdened by a high level of community violence, though perceived and actual criminal activity was not related.

Research Question 2

To what degree are the identified individual, family, and external protective factors related to student outcomes, specifically with regard to:

> *a.) resilience status,*
>
> *b.) behavioral referrals,*
>
> *c.) reading achievement?*

Level of family cohesion was found to be the strongest contributor to student resilience ratings, a finding that is consistent with results from previous research linking close family relationships with positive psychological adjustment (Fergeson & Lynskey, 1996; Masten et al., 1988; Mistry et al., 2002). A general theme that surfaced during the interviews was the importance of family composition and cohesion and the ensuing effects on resilient status. Students in the high-scoring group were more likely to come

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from intact families with two biological parents as well as having fewer children living in the household. Each of the three students in the low group had multiple combinations of siblings and lived either with a single mother or with blended step-families. Larger families and families who have undergone divorce and remarriage are more likely to necessitate children's adjustment to stressful situations, in addition to the subsequent changes in financial resources (e.g., due to divorce) and allotment of those resources (Carlson, 1995; Hetherington & Stanley-Hagan, 1999).

Masten et al. (1988) noted that boys are at greater risk for disruptive behavior problems following major stressors including divorce, whereas girls tend to "cope" with such stressors in a more internalizing manner (e.g., depression, anxiety), particularly in elementary and middle school (Kim, Conger, Elder, & Lorenz, 2003). It should be clarified that divorce, in itself, may not be the main contributor to poor outcomes; rather, the related discord that tends to precede the dissolution of marriage and the aforementioned financial repercussions may be the important determinants of the child's ability to adjust effectively (Doll & Lyon, 1998; Masten et al., 1988). Regardless, it seemed that those interviewees in the current study with smaller, more intact families experienced a higher level of cohesion and family involvement which, as discussed above, is related to a whole host of positive outcomes (Garmezy, 1987; Masten & Coatsworth, 1998).

Rutter (1987) asserted that the presence of one good parent-child relationship can serve to reduce poor psychiatric outcomes associated with the presence of negative risk variables (e.g., family discord, loss of a parent) and can enhance the development of the

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child's self-esteem and self-efficacy. McClun and Merrell (1998) also found that warm and caring parenting practices were related to an internal locus of control orientation and higher self-concepts in their children (i.e., 8th and 9th grade students). In the current study, a higher level of family cohesion was found to be correlated with a healthier attribution style, very similar to the internal locus of control construct assessed in McClun and Merrell's study, as well as more positive perceptions of physical appearance, which is sometimes seen as a contributor to overall self-concept (Bracken, 1992).

Given that the student questionnaire from the quantitative portion of the study did not directly inquire about students' past or present social involvements, the researcher included a number of items on the interview form addressing relationships with influential individuals in the participants' daily lives. The students each were able to name a family member who had a particularly positive impact on them, and it was interesting to see that the high scorers were more likely than the low-scoring group members to select an adult (i.e., parent, aunt) for this role. Two students in the low resilience group selected family members in their same age range (i.e., cousin, younger sister) as having the greatest positive influence. Five of six interviewees chose same-aged peers as playing an influential role in the non-family category, as opposed to just one who selected a former teacher as an important role model and support person.

While teachers typically were not identified as mentors among this group of students, one commonality among them regardless of grouping was their expressed appreciation for teachers who showed caring and concern while also trying to make the learning process both interesting and challenging. In an ideal situation, educators should

be willing to create these kinds of relationships and expectations for all students. By developing classroom environments wherein each student feels valued, enjoys a sense of security, and is invited to participate freely, student resilience can be supported and fostered (Christensen, Christensen, & Howard, 1997). Children's beliefs about themselves and their potential for success is reflected in their behavior (Masten & Coatsworth, 1998) and teachers can have a significant influence on those beliefs through their own actions and words. Given that there exists a reciprocal interplay, however, between students' and teachers' relationships with each other, both parties need to learn how they can affect those interactions in a positive direction.

Research in this area strongly supports the notion that having an individual who serves a mentoring function is a key protective factor in fostering student resilience (Todis, Bullis, Waintrup, Schultz, & D'Ambrosio, 2001; Werner, 1989). Especially for those students who do not have a strong bond with either parent or another close family member, mentors can operate in a compensatory role, providing advice and encouragement, transmitting knowledge and values, and modeling social interaction skills. Regardless of whether the individual can identify one key person who can be considered a mentor as defined here, social support of some kind by a valued individual consistently appears in the literature as serving a protective function to at-risk individuals (Engle, Castle, & Menon, 1996). The reverse also is true, that peer rejection and social interaction difficulties are linked with aggressive behavior, internalizing (e.g., depression, anxiety) and externalizing disorders (e.g., ADHD, conduct disorder), poor achievement,

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and future maladjustment, among other problems (Demaray & Malecki, 2002; Masten & Coatsworth, 1998).

While the linkage between family cohesion, social connectedness and mentoring and a host of positive outcomes makes logical sense and has empirical support to substantiate it, one finding uncovered in this investigation initially was somewhat surprising. There was a significant inverse relationship found between school belongingness and reading performance in the final regression model. One would hypothesize that the more positively one feels about the school environment in general, the more the individual may value academic learning and performance, in this case, in reading. The opposite was found and, while the correlation was not large, it denotes that those who endorsed more positive feelings about school actually performed less well on the indicator of reading achievement.

While little was found in the literature regarding why this may have occurred specifically with regard to reading, O'Donnell, Schwab-Stone, and Muyeed (2002) looked at school belongingness and its relationship to several mental health indicators. They found that school "support" actually led to lowered levels of emotional resilience as students who perceive their classmates, teachers, and school environment as supportive may also feel a heightened need to excel in their school work to conform to the expectations. They noted that such expectations in combination with other risk factors (e.g., exposure to community violence) may lead them to feel inadequate which may, in turn, lead to depressive and somatic symptoms.

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Perhaps more relevant to the findings of the present study is the argument presented by Baker, Dilly, Aupperlee and Patil (2003) that "students' subjective appraisals of their lives do not appear to be closely related to their academic performance and intellectual abilities" (p. 214). In an earlier study, Baker (1998) found that academic self-concept had an inverse relationship with school satisfaction among urban, low-income, African American students. Thus, students' actual level of academic performance and the value they ascribe to it may not be primary contributors to school satisfaction in this population and, in fact, it may be felt that school belongingness has as much or more to do with social and behavioral aspects of the environment as the academic milieu.

It is hypothesized as well that students who are proud, or at least not embarrassed, to be attending school in an alternative education setting may be a lower functioning group as a whole, which this finding, at least indirectly, may support. That is, those students who enjoy being at an alternative education site may be those who, despite having lower academic achievement levels, feel more successful and involved in the learning process than they might elsewhere, particularly among higher-functioning peers in a general education setting. This represents an area worthy of continued study. Gender differences in school belongingness also should be investigated further. In the current study, females were found to endorse higher levels of school belongingness, while previous studies uncovered mixed findings with regard to sex (Goodenow, 1993a; Goodenow, 1993b).

Further investigation also is warranted in examining the role of extracurricular community involvement and student outcomes. In the current study, the only variables correlated with such involvement were age and racial status, with younger students and those of minority status endorsing greater involvement in religious and community activities. It is sensible to hypothesize that extracurricular involvement may lead to better outcomes as a result of the positive socialization and mentoring opportunities, though Masten and Coatsworth (1998) noted that potential risks and long term effects of such involvement still are in question. While some investigations have linked participation in extracurricular activities to lower rates of dropping out of school and more positive engagement in learning, other studies have not found involvement to be significantly related to positive outcomes (Finn & Rock, 1997).

Little information was collected with respect to the quality of the extracurricular experiences (e.g., adult supervision, structured activities) and contributing factors leading to the students' involvement or lack of it (e.g., parents' religiosity, access to community center). Nettles (1991) provides a detailed description of the necessitating factors for an extracurricular opportunity to be effective in decreasing negative student outcomes, including carefully planned adult social support, incentives for effort and achievement, and school/community alliances.

While not examined in this investigation, one type of extracurricular involvement that may serve as a motivator to increase students' ability to return to their community schools and avoid another placement in alternative education may be involvement in sports. Almost all of the students participating in the individual interviews shared that a

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significant strength for them was athletic skill, and several chose professional football playing as a career aspiration. While this may not be a realistic goal given the small percentage of individuals who actually can attain such a position, it can serve as a motivator in changing behavior and prompting increased academic effort in order to work toward such a goal. Guest and Schneider (2003) noted that in lower-class communities, in particular, sports involvements often are seen as "equal opportunity venues for achievement and upward mobility" (p. 90) and are associated with more positive outcomes, including academic perseverance, than is true of engagement in other extracurricular activities.

Through their research, Braddock, Royster, Winfield, and Hawkins (1991) found that sports participation, particularly for African-American males, is positively associated with students' intentions to complete high school and enroll in college, as well as being correlated with fewer conduct problems, a sense of importance, and higher status among peers. Braddock and colleagues asserted that the benefits of sports involvement can go beyond actually playing on teams (which are not available in alternative education) to incorporating sports-related curricular activities in the classroom (e.g., enhance writing and language skills by writing sports-related papers and articles, enhance math skills by working with team and player statistics, start a sports-enthusiasts club). Actively helping a student to develop his or her strengths and hobbies can support resilient functioning and serve as a source of motivation across academic, behavioral and emotional areas.

Research Question 3

Do any of the identified individual, family or external protective factors serve to significantly moderate the effects of the individual, family or external risk factors on student outcomes with regard to:

      a.) resilience status,

      b.) behavior referrals,

      c.) reading achievement?

Following the six multiple regressions conducted to address the first two research questions, one moderator variable was created to examine whether the presence of a family cohesion served to lessen the influence of poor parental structure on students' level of resilience. The moderator was made by multiplying the significant risk and protective factors, and then an additional multiple regression analysis was conducted to determine the new variables' contribution to the model. The moderator variable was not found to change or contribute to the original model to a significant degree.

Since the analyses did not reveal any significant changes with the addition of the moderator variable, and only one moderator variable needed to be created in this study, it can be concluded that none of the protective factors were found to interact with any of the risk factors to serve a buffering role. Luthar (1993) indicated that the complexities associated with analyses of interaction effects have led some investigators to suggest using more parsimonious main effect models in predicting resilience. Luthar went on to assert that these models are no less informative or useful than interaction effect models for this kind of research, given that the question being asked relates to what factors

distinguish those students who do well from those who do poorly among a group of students already determined to be at-risk for negative outcomes. On the other hand, interaction models attempt to address differential competence levels between high- and low-risk groups. Luthar noted that a combination of both kinds of information provides the most complete understanding of the construct but, again, main effect models remain useful in identifying the important risk and protective variables at play.

Implications for Educators

Despite some limitations inherent in the current investigation, some valuable insights into potentially useful intervention efforts can be derived from this research. Given the significant contribution of parent and family characteristics in the model of student resilience, efforts can and should be made to stress the importance of these factors when developing initiatives to help students and families in alternative education. In particular, parental structure and supervision practices can be addressed in parent education literature and classes available to this population.

Family cohesiveness, defined as strengthened relationships resulting from positive interactions during time spent in both routine (e.g., mealtimes) and leisure activities, is another area with which schools can provide support. This can be done through parent training endeavors as well but also, and perhaps more meaningfully, through school-home collaborative efforts that foster such connectedness. Family dinner nights at school or school-organized volunteering or fundraising events, for example, can provide structured opportunities for family bonding as well as imparting the indirect benefit of strengthening positive associations with school in general. In addition, considering that

parental structure strongly affects resilience in a positive direction, structure and supervision provided in the school environment may be equally important factors in fostering students' resilience and personal growth.

Christiansen, Christiansen and Howard (1997) noted the importance of actively developing rapport during the initial interactions with students' families, which sets a more positive tone for subsequent meetings that are likely to occur when dealing with behavioral issues and problem-solving efforts. They also indicated that most children of at-risk status come from home environments that are in distress, making it even more important to "establish with the parent a relationship that acknowledges the difficulties inherent in the situation and provides words of support, a plan of action, and a promise to keep working together toward positive outcomes" (p. 88). Christenson (2003) asserted that actively reaching out to parents and communicating a stance of shared responsibility for student success is critical in maintaining such a partnership. Even though the length of the student's stay in alternative education is intended to be short-term, the relationships built between school and family are nonetheless essential in ensuring that the student benefits maximally from the Program.

When the researcher talked with participating teachers about their completion of the resilience measure, it became clear that many of them knew little about their students' family environments and experiences. A number of teachers were honest in communicating that they did not know about students' relationships with family members or even with whom they resided. While this may be typical in a large high school setting where teachers spend less time with a larger number of students, the structure of

alternative education is such that teachers and students spend longer blocks of time with one another and it would be assumed that natural discourse between them would shed light on students' home experiences.

In addition, more time often is spent in case reviews given the nature of the Program and the necessary monitoring of the students' progress toward the set exit criteria. It might behoove the staff involved in the Program to become more aware of the specific family-related risk variables to which the students are exposed in order to gain better insight into the problems they display. This increased knowledge and understanding may lead teachers to become more tolerant and more open to being the positive role models and mentors that these students, in many cases, so desperately need.

Given that many students involved in alternative education also come from "distressed" neighborhoods where both real and perceived crime and violence occur with greater frequency, it is even more imperative that the school environment serve as a safe haven or buffer zone for students. Students coming from neighborhoods with higher rates of crime were found to have lower reading achievement, as well as a greater number of behavior referrals in this investigation. In support of this finding, O'Donnell, Schwab-Stone, and Muyeed (2002) asserted that students with greater exposure to crime and violence, either as witnessed in their neighborhoods or as personally experienced, are highly vulnerable to negative outcomes including maladaptive behavior and emotional difficulties. Due to children's and adolescents' level of physical and cognitive development, they are much more likely to respond to exposure to violence with greater fear and confusion than do adults. As such, they should be given primary consideration

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for prevention and intervention efforts. The authors noted that not only are they the most in need of positive support, they also may be the group that is likely to benefit most from it.

Limitations and Directions for Future Research

This research contributes in both theoretical and practical ways to the current body of knowledge about resilience and the risk and protective factors that matter most to students in alternative education settings. Nevertheless, there are limitations that may compromise the utility of the findings, several of which could be improved upon in later investigations.

First, differences across the four centers existed in terms of the behavioral interventions provided. While all centers shared the same requirements for exiting (e.g., C grade-point average, zero behavioral referrals), the schools employed varying levels of structure for students to work through the Program. Given the additional structure that accompanies the behavioral interventions in some systems (e.g., structured level systems to aid in goal attainment), students may find it easier to apply themselves and be completely abreast of their status at all times. Future investigations might attempt to further limit within-group variability by examining programs that have factions that are more uniform in nature. A closer examination of differences between urban and rural student populations also might be beneficial in teasing apart variables that may serve a risk and/or protective function for each of these groups.

The fact that the alternative education population is a rather circumscribed or narrow population has both limitations and advantages. Examination of such a small

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group of students, those conducting behavioral infractions severe enough to warrant special placement away from their community schools, makes it difficult to generalize the results of this investigation to other student populations. However, researchers in the current literature on resilience are calling for studies that look less at broad generalizations and focus more on the interplay of risk and protection in specific groups of individuals (Davis, 1999; Doll & Lyon, 1998). While the results of studies like the current one do not generalize to the population of students who might have behavioral issues in general education, focused research and subsequent intervention efforts to improve the functioning of this markedly at-risk alternative education population are scarce at best and, therefore, a push for additional studies focusing on this population is warranted. It also would be interesting to focus not only on single individuals that comprise this population, but also on the siblings of these students. Distinguishing the differences between families with only one child enrolled in alternative education, versus those that have several siblings attending, would shed more light on potentially important family-related factors that influence resilience.

The fact that some of the measures used in data collection were created for use in this study can be considered a third limitation. The assignment of items to domains on the student questionnaire was not empirically determined and, therefore, the degree to which items actually are measuring their respective domains is not clear. Empirically tested tools already proven to be psychometrically sound were not used because none were found that comprehensively addressed the specific research questions included in this investigation. Furthermore, it was felt that compiling a number of individual measures

addressing each of the numerous variables assessed herein would make the data collection demands too unreasonable for those agreeing to contribute their time and input. One published measure that was used, the Child Attribution Style Questionnaire (Seligman, 1991), has limited reliability and validity; however, it is the most widely accepted tool used to assess its construct.

The data collected about crime statistics came from a national website and no information regarding reliability and validity were available. In addition, though information for this risk variable contributed significantly to the study's findings, it may be more meaningful to use data that better targets the specific neighborhoods in which the students lived. Crime data from zip codes covering rather large areas were used and further investigations might include statistics that encompass a smaller area, if available, in order to better determine the match between students' perceptions of the crime they witness and the actual crime occurring in their neighborhoods.

Those interested in continuing research in this area should develop data collection tools that provide reliable and valid scores in order to better ensure that findings are not missed or misinterpreted. Measures with low reliability contain more measurement error, thus decreasing the confidence with which conclusions can be drawn from the results. Future studies that include a greater number of students also would be beneficial given that increased statistical power would allow for better detection of significant relationships among multiple variables (Gall, Borg, & Gall, 1996). In addition, it was felt that the qualitative portion of this study provided some valuable insights and support for several of the quantitative findings and could be further expanded in future research.

Considering that resilience is a multifaceted and changing process related to a number of factors (e.g., exposure to specific risk variables, developmental stage of individual), a richer and deeper understanding of the construct could be obtained by utilizing more in depth qualitative designs.

A fourth limitation is that the main indicator of resilient status was gathered from only one person's perspective, that of each participants' teachers. Individual teacher variables, including attitudes toward students in alternative education, racial differences, number of years of teaching experience, and other personality variables that come into play with regard to student-teacher interactions, were not assessed. While not empirically validated, it was the researcher's observation that teachers with the most apparent positive and negative attitudes were more generous and more critical with their ratings, respectively. These distinctions between the more optimistic and pessimistic orientations primarily were made by listening to the anecdotal comments that teachers made both about individual students and about the alternative education population at large. Observations of teachers' styles of relating to students also were gathered when visiting each of the classrooms to explain the study or collect participants to complete the survey.

A number of teachers completing the BERS-II admitted that they did not have a great deal of information about the students' family lives. While the researcher encouraged these teachers to provide their best estimates when rating the items on the Family Involvement scale, their perceptions may not have been reflective of the students' actual level of functioning in this area. In future research, the subscales of the BERS-II could be examined separately so that stronger conclusions could be drawn about those

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student characteristics that are more apparent in the school setting (e.g., Interpersonal Strength, School Functioning) versus those that teachers are required to make some assumptions about (e.g., behavior and relationships at home). By analyzing the subscales separately, more information about the different domains of resilience, and the relationships between those domains, also could be ascertained.

Self-report measures also were used as a primary source of data for student perceptions and, therefore, the associated limitations apply (e.g., "faking good," reluctance to share personal information). Future researchers should incorporate more of a multi-method, multi-source process (e.g., obtaining ratings from multiple teachers and calculating mean scores, collecting objective and subjective data to measure like constructs) when collecting data in order to limit the variability introduced by individuals' potential biases.

Finally, while attempting to view resilience as a multidimensional construct by examining social/emotional, behavioral and academic indices of student functioning, this study only allowed for a snapshot view of student resilience at one point in time. A more useful approach to the study of this complex and changing phenomenon would be to include a longitudinal component to investigate the stability of resilient functioning over time. Some of the seminal research endeavors discussed at the beginning of this paper did just that (Doll & Lyon, 1998; Long & Vaillant, 1984; Werner, 1989) and are exemplary in their attempts to shed light on what is a very important and growing body of research. If the interplay of risk and protective factors related to resilient functioning can continue to be meaningfully investigated with an eye toward individuals' developmental growth,

valuable information about how to change the potentially negative trajectories resulting from at-risk status can be revealed.

Conclusion

The present study found that there were several individual, family, and external risk and protective factors related to students' resilient functioning across social/emotional, academic, and behavioral areas. In this sample of students involved in an alternative education placement for behavioral misconduct, the risk factors of low parental structure in the home and high rates of community violence contributed to lower student resilience as perceived by teachers. The latter risk factor also was related to more numerous referrals for disciplinary purposes and lower reading achievement.

Family cohesion (i.e., time and quality of family interactions) also was found to share a relationship with student resilience. Those students endorsing greater family cohesion received higher resilience scores as rated by their teachers. Family cohesion also was linked to attribution style, perceptions of physical appearance and school belongingness. Reading achievement, somewhat surprisingly, was found to be lower in students who endorsed a strong sense of belonging to their schools.

Moderator variables were created to examine any potential interaction effects between risk and protective variables, though none contributed significantly to the regression models. Qualitative information gathered during individual interviews did, however, provide additional meaningful insights into the risk and protective factors experienced by this group of students.

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While this study has its limitations, it contributes to the literature by taking a closer look at the risk and protective factors affecting a student population facing more than just school failure. Educators need to consider the challenges their students are experiencing and actively find ways to build in supports, such as home-school collaboration, mentoring, and appropriate academic practices and expectations. As a result, students may be able to benefit maximally from their involvement in alternative education and may become more successful for having been there, rather than less so.

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Appendices

Appendix A – Data Sources and Codings

Variable	Measure/Source	Score/Indicator
Risk Factors		
Type of Offense	Student Information System (SIS)	0=Acute 1=Chronic
Juvenile Record	SIS	0=No Involvement 1=DJJ Involvement
Retention	SIS	0=Not Retained 1=Retained
Parental Structure	Student Questionnaire (SQ)	Summed Score on Scale
Family Composition	SIS	0=Two Biological Parents 1=Other (i.e., Single Parent, Step Family, Other Relatives, Non-relatives)
Community Violence	Statistics by Zip Code	Rating 1-10
Perceptions of Violence	SQ	Summed Score on Scale
Protective Factors		
Attribution Style	Child Attribution Style Questionnaire (CASQ)	CPCN (Total Score)
Perceptions of Physical Appearance	SQ	Summed Score on Scale
Family Cohesion	SQ	Summed Score on Scale
Extracurricular Involvement	SQ	Summed Score on Scale
School Belongingness	SQ	Summed Score on Scale
Outcome Variables		
Student Resilience	Behavioral and Emotional Rating Scale (BERS-II)	Total Score
Behavior Referrals	SIS	Total Number of Referrals
Reading Achievement	SIS	Reading FCAT Score
Control Variables		
Sex	SIS	0=Female 1=Male
Race	SIS	0=Non-white (i.e., Black, Hispanic, Multiracial) 1=White
Special Education Status	SIS	0=Not Eligible 1=Eligible
Age	SIS	11-17 years
Grade	SIS	$6^{th} - 11^{th}$

Appendix B: Child Attribution Style Questionnaire (CASQ)

For the next items, pick the best explanation for what happened in each sentence.

1. You get an "A" on a test.
   a. I am smart.
   b. I am good in the subject that the test was in.

2. You play a game with some friends and you win.
   a. The people that I played with did not play the game well.
   b. I play that game well.

3. You spend the night at a friend's house and have a good time.
   a. My friend was in a friendly mood that night.
   b. Everyone in my friend's family was in a friendly mood that night.

4. You go on a vacation with a group of people and you have fun.
   a. I was in a good mood.
   b. The people I was with were in good moods.

5. All of your friends catch a cold except you.
   a. I have been healthy lately.
   b. I am a healthy person.

6. Your pet gets run over by a car.
   a. I don't take good care of my pets.
   b. Drivers are not cautious enough.

7. Some kids that you know say that they do not like you.

   a. Once in a while people are mean to me.
   b. Once in a while I am mean to other people.

8. You get very good grades.
   a. School work is simple.
   b. I am a hard worker.

9. You meet a friend who tells you that you look nice.
   a. My friend felt like praising the way people looked that day.
   b. Usually my friend praises the way people look.

10. A good friend tells you that he hates you.
    a. My friend was in a bad mood that day.
    b. I wasn't nice to my friend that day.

11. You tell a joke and no one laughs.
    a. I do not tell jokes well.
    b. The joke is so well known that it is no longer funny.

12. Your teacher gives a lesson and you do not understand it.
    a. I didn't pay attention to anything that day.
    b. I didn't pay attention when my teacher was talking.

13. You fail a test.
    a. All tests are hard.
    b. Only some tests are hard.

14. You gain a lot of weight and start to look fat.
    a. The food that I have to eat is fattening.
    b. I like fattening foods.

15. A person steals money from you.
    a. That person is not honest.
    b. Many people are not honest.

16. Your parents praise something that you make.
    a. I am good at making some things.
    b. My parents like some things I make.

17. You play a game and you win money.
    a. I am a lucky person.
    b. I am a lucky person when I play games.

18. You almost drown swimming in a river.
    a. I am not a very cautious person.
    b. Some days I am not a cautious person.

19. You are invited to a lot of parties.
    a. A lot of people have been acting friendly toward me lately.
    b. I have been acting friendly toward a lot of people lately.

20. A grown up yells at you.
    a. That person yelled at the first person he saw.
    b. That person yelled at a lot of people he saw that day.

21. You do a project with a group of kids and it turns out badly.
    a. I don't work well with the people in that particular group.
    b. I never work well with groups.

22. You make a new friend.
    a. I am a nice person.
    b. The people that I meet are nice.

23. You have been getting along well with your family.
    a. I am usually easy to get along with when I am with my family.
    b. Once in a while I am easy to get along with when I am with my family.

24. You try to sell candy, but no one will buy any.
    a. Lately a lot of children are selling things, so people don't want to buy anything else from children.
    b. People don't like to buy things from children.

25. You play a game and you win.
    a. Sometimes I try as hard as I can at games.
    b. Sometimes I try as hard as I can.

26. You get a bad grade in school.
    a. I am not a good student.
    b. Teachers give hard tests.

27. You walk into a door and you get a bloody nose.
    a. I wasn't looking where I was going.
    b. I have been careless lately.

28. You miss the ball and your team loses the game.
    a. I didn't try hard while playing ball that day.
    b. I usually don't try hard when I'm playing ball.

29. You twist your ankle in gym class.
    a. The past few weeks the sports we played in gym class have been dangerous.
    b. The past few weeks I have been clumsy in gym class.

30. Your parents take you to the beach and you have a good time.
    a. Everything at the beach was nice that day.
    b. The weather at the beach was nice that day.

31. You take a train which arrives so late that you miss a movie.
    a. The past few days there have been problems with the train being on time.
    b. The trains are almost never on time.

32. Your mother makes your favorite dinner.
    a. There are a few things that my mother will do to please me.
    b. My mother usually likes to please me.

33. A team that you are on loses a game.
    a. The team members don't help each other when they play together.
    b. That day the team members didn't help each other.

34. You finish your homework quickly.
    a. Lately I have been doing everything quickly.
    b. Lately I have been doing schoolwork quickly.

35. The teacher asks a question and you give the wrong answer.
    a. I get nervous when I have to answer questions.
    b. That day I got nervous when I had to answer questions.

36. You get on the wrong bus and get lost.
    a. That day I wasn't paying attention to what was going on.
    b. I usually don't pay attention to what's going on.

37. You go to an amusement park and you have a good time.
    a. I usually enjoy myself at amusement parks.
    b. I usually enjoy myself in many activities.

38. An older kid slaps you in the face.
    a. I teased his younger brother.
    b. His younger brother told him I had teased him.

39. You get all the toys you want on your birthday.
   a. People always guess what toys to buy me for my birthday.
   b. This birthday people guessed right as to what toys I wanted.

40. You take a vacation in the country and you have a wonderful time.
   a. The country is a beautiful place to be.
   b. The time of the year that we went was beautiful.

41. Your neighbors ask you over for dinner.
   a. Sometimes people are in kind moods.
   b. People are kind.

42. You have a substitute teacher and she likes you.
   a. I was well behaved during class that day.
   b. I am almost always well behaved during class.

43. You make your friends happy.
   a. I am usually a fun person to be with.
   b. Sometimes I am a fun person to be with.

44. You get a free ice cream cone.
   a. I was friendly to the ice cream man that day.
   b. The ice cream man was feeling friendly that day.

45. At your friend's party the magician asks you to help him out.
   a. It was just luck that I got picked.
   b. I looked really interested in what was going on.

46. You try to convince a kid to go to the movies with you but he won't go.
   a. That day he did not feel like doing anything.
   b. That day he did not feel like going to the movies.

47. Your parents get a divorce.
   a. It is hard for people to get along well when they are married.
   b. It is hard for my parents to get along well when they are married.

48. You have been trying to get into a club and you don't get in.
   a. I don't get along well with other people.
   b. I can't get along well with people in the club.

Appendix C: Student Questionnaire

On the following pages, you will be asked questions about yourself and your experiences. Your name and answers will not be shared with anyone, so please be as honest as possible. There are no right or wrong answers. Please read each item carefully and CIRCLE your answer.

1.	I am a.............	Male Female
2.	I am in grade...	6 7 8 9 10 11 12
3.	I am..................	White Black Hispanic/Latino Multi-racial Other:_____

Family Composition:

4.	I live with the following grown-ups: (Circle all that apply.)	Mom Dad Stepfather Stepmother Grandmother Grandfather Aunt Uncle Guardian Other
5.	I have _____ biological brothers and sisters.	0 1 2 3 4 5 6 7 8 9 10+
6.	I have _____ step or half siblings.	0 1 2 3 4 5 6 7 8 9 10+
7.	The number of kids, including myself, that live in my house is _____.	1 2 3 4 5 6 7 8 9 10+

Parental Supervision:

8.	When I am at home, my parent(s) or another adult is there with me.	a. Always b. Most of the time c. Sometimes d. Rarely e. Never
9.	My parents want to know where I am and who I am with.	a. Always b. Most of the time c. Sometimes d. Rarely e. Never
10.	I have a bedtime that my parents enforce.	a. Always b. Most of the time c. Sometimes d. Rarely e. Never
11.	I have a curfew that my parents enforce.	a. Always b. Most of the time c. Sometimes d. Rarely e. Never
12.	My parent(s) follow through on consequences when I break a rule (e.g., I get grounded, can't watch TV, etc.).	a. Always b. Most of the time c. Sometimes d. Rarely e. Never
13.	My parents make sure that I have done my homework.	a. Always b. Most of the time c. Sometimes d. Rarely e. Never
14.	I know where I can find my parents when they are not at home.	a. Always b. Most of the time c. Sometimes d. Rarely e. Never

Family Cohesion:

15.	I know that if I have a problem, I can count on my family to help me solve it.	a. Always b. Most of the time c. Sometimes d. Rarely e. Never
16.	My parents argue in front of me.	a. Always b. Most of the time c. Sometimes d. Rarely e. Never
17.	I believe that my family cares about me.	a. Always b. Most of the time c. Sometimes d. Rarely e. Never
18.	My family does things together for fun.	a. Always b. Most of the time c. Sometimes d. Rarely e. Never
19.	Family members move in and out of my house.	a. Always b. Most of the time c. Sometimes d. Rarely e. Never

Community Violence:

20.	I have seen people having physical fights in my neighborhood.	a. Yes	b. No	c. Not sure
21.	The police drive through my neighborhood regularly.	a. Yes	b. No	c. Not sure
22.	I have seen someone being arrested in my neighborhood.	a. Yes	b. No	c. Not sure
23.	Gang members live in my neighborhood.	a. Yes	b. No	c. Not sure
24.	Some has stolen or damaged my family's property where we currently live.	a. Yes	b. No	
25.	I have been threatened by someone in my neighborhood with a weapon (e.g., knife, gun).	a. Yes	b. No	
26.	I have carried a weapon to protect myself from someone in my neighborhood.	a. Yes	b. No	
27.	I have stayed inside my house before because I felt unsafe outside.	a. Yes	b. No	

Extracurricular Involvement:

28.	I attend church services each week.	a. Yes	b. Sometimes	c. No
29.	My family and I are members of a church.	a. Yes	b. Sometimes	c. No
30.	I am involved in church-related activities (e.g., youth group, bible study/classes).	a. Yes	b. Sometimes	c. No
31.	I go to events held at my community center.	a. Yes	b. Sometimes	c. No
32.	I volunteer my time to help others in my community (e.g., work at a soup kitchen, deliver meals).	a. Yes	b. Sometimes	c. No
33.	I spend time at the Girls & Boys Club, the local YMCA, or other clubs.	a. Yes	b. Sometimes	c. No

Perceptions of Physical Appearance:

34.	I wish I had a better body.	a. Yes	b. Sometimes	c. No
35.	I try to look and dress nice.	a. Yes	b. Sometimes	c. No
36.	I am happy with my appearance.	a. Yes	b. Sometimes	c. No
37.	I think I am pretty/handsome.	a. Yes	b. Sometimes	c. No
38.	I am clumsy.	a. Yes	b. Sometimes	c. No
39.	I exercise and take care of my body.	a. Yes	b. Sometimes	c. No
40.	I am often tired.	a. Yes	b. Sometimes	c. No

School Belongingness:

41.	I attend school every day, unless I'm sick.	a. Yes	b. Sometimes	c. No
42.	I look forward to coming to school.	a. Yes	b. Sometimes	c. No
43.	I get teased or bullied by the other students.	a. Yes	b. Sometimes	c. No
44.	My teachers like me.	a. Yes	b. Sometimes	c. No
45.	I am proud to be a student of this school.	a. Yes	b. Sometimes	c. No

Appendix D: Student Questionnaire Item Worksheet

STUDENT QUESTIONNAIRE FOR RESILIENCE STUDY
Kelly Crawford, Ed.S.

(1) Please assign each item to the category you think it best represents. The categories include:

A.	FAMILY COHESION (FC)
B.	COMMUNITY VIOLENCE (CV)
C.	PARENTAL STRUCTURE/RULES (PSR)
D.	PHYSICAL APPEARANCE (PA)
E.	EXTRACURRICULAR INVOLVEMENT (EI)
F.	FAMILY COMPOSITION (FComp)
G.	SCHOOL BELONGINGNESS (SB)

(2) As you read through the items, please put an "X" next to any items that, in terms of <u>wording and readability</u>, you would rate as "poor" or "fair" versus "excellent" or "good." Feel free to make any suggested changes on this form.

_____ When I am at home, my parent(s) or another adult is there with me.

_____ I have been threatened by someone in my neighborhood with a weapon (e.g., knife, gun).

_____ My parents make sure I have done my homework.

_____ I have ____ biological brothers and sisters.

_____ Family members move in and out of my house.

_____ I think I am good looking.

_____ I attend school everyday, unless I am sick.

_____ I have stayed inside my house before because I felt unsafe outside.

_____ I know where I can find my parents when they are not at home.

_____ The number of kids, including myself, that live in my house is _____.

_____ I get teased or bullied by the other students.

_____ I am involved in church-related activities (e.g., youth group, bible study/classes).

_____ I have seen people having physical fights in my neighborhood.

_____ I am proud to be a student of this school.

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A.	FAMILY COHESION (FC)
B.	COMMUNITY VIOLENCE (CV)
C.	PARENTAL STRUCTURE/RULES (PSR)
D.	PHYSICAL APPEARANCE (PA)
E.	EXTRACURRICULAR INVOLVEMENT (EI)
F.	FAMILY COMPOSITION (FComp)
G.	SCHOOL BELONGINGNESS (SB)

_____ I wish I had a better body.

_____ My family does things together for fun.

_____ I have _____ step or half siblings.

_____ I look forward to coming to school.

_____ I exercise and take care of my body.

_____ I spend time at the Girls & Boys Club, the local YMCA, or other clubs.

_____ My teachers like me.

_____ I try to look and dress nice.

_____ My parents argue in front of me.

_____ I have a curfew that my parents enforce.

_____ I have seen someone being arrested in my neighborhood.

_____ I am often tired.

_____ I go to events held at my community center.

_____ I live with the following grown-ups: (A list is provided for students to select from.)

_____ My parents follow through on consequences when I break a rule (e.g., I get grounded, can't watch T.V., etc.).

_____ I am happy with my appearance.

_____ Gang members live in my neighborhood.

_____ My parents want to know where I am and who I am with.

_____ I believe that my family cares about me.

_____ My family and I are members of a church.

A.	FAMILY COHESION (FC)
B.	COMMUNITY VIOLENCE (CV)
C.	PARENTAL STRUCTURE/RULES (PSR)
D.	PHYSICAL APPEARANCE (PA)
E.	EXTRACURRICULAR INVOLVEMENT (EI)
F.	FAMILY COMPOSITION (FComp)
G.	SCHOOL BELONGINGNESS (SB)

_____   I am clumsy.

_____   I volunteer my time to help others in my community (e.g., work at a soup kitchen, deliver meals).

_____   I have carried a weapon to protect myself from someone in my neighborhood.

_____   I know that if I have a problem, I can count on my family to help me solve it.

_____   Someone has stolen or damaged my family's property where we currently live.

_____   I have a bedtime that my parents enforce.

_____   The police drive through my neighborhood regularly.

_____   I attend church services each week.

<u>Student Interview Form</u>

Student #:_____   Date:_____

Interviewer:_____   School:_____

Consent provided by:_____Audiotaped? Yes   No

Thank the student for his/her participation completing the survey and now in meeting to be interviewed. Present the student with the assent form, read it aloud to him/her, and ask him/her to sign it.

School Section

1. On the survey you completed for this study, you answered that you ARE/ARE NOT (check before interview and circle one) proud to be a member of this school. Describe first what you have liked, and then what you have disliked, about attending school here and being involved in the alternative education program.

2. Do you think you will return to your school and be able to avoid coming back to alternative education?   YES   NO

3. What have you learned from this experience that will help you to make better choices in the future to avoid returning to alternative education?

4. In your opinion, what are some things teachers can do to help students be more successful in school?

5. Does having a teacher who seems to care about you make you want to do well in his/her class? YES   NO   What else makes you want to do well? (e.g., parent consequences, interest in subject, return to neighborhood school)

Family Section

1.   Which family members do you live with right now? (check or record # of each)

Mother_____   Step-father_____ Brother(s)_____
Father_____   Step-mother_____ Sister(s)_____
Aunt_____   Uncle_____ Step-sibling(s)_____
Grandparent(s)_____   Other:_____

2.   In a typical week (including Saturday and Sunday), how much time do you spend together as a family (e.g., eating dinner, watching T.V., going places)?

3.   What kinds of things do you enjoy doing with your family?

4.   Do you feel your parents' (or other caregivers') rules are too lenient, too strict, or fair? Explain why.

4A.   Give two or three examples of rules your parents/caregivers have for you.
1)
2)
3)

5.   Can you name one person in your family who has had a very positive influence on you?

5A.   What do you admire or like about him/her?

6.   Can you name one person outside of your family (e.g., teacher, church member, family friend) who has had a very positive influence on you?

6A.   What do you admire or like about him/her?

Self Section

1. What are two or three things you are really good at doing? (e.g., sports, academics, playing an instrument, helping others)
    1)
    2)
    3)

2. What are two or three things at which you would like to be better?
    1)
    2)
    3)

3. Do you have at least one or two friends who you like a lot and can count on when you need help or advice?

4. Is it easy or hard for you to get along with your peers? Explain why.

5. What three words might other people (e.g., classmates, family members, friends) use to describe you?
    1)
    2)
    3)

6. Would you agree with these or would you use different words?

7. What do you think your future will look like? What goals and plans do you have for yourself?

8. If you could be granted any 3 wishes, what would they be?
    1)
    2)
    3)

End by asking the student if he/she has any questions or anything else to add, thank him/her for participating, and provide the $10.00 payment.

Resilience Research Study
Parent Consent Form

The following information is being presented to help you decide whether or not you want to allow your child to be a part of a research study. Please read this carefully.

PURPOSE OF STUDY:

Hello! My name is Kelly Crawford and I am a doctoral student in School Psychology at the University of South Florida. I am doing a study to learn about the risk and protective factors that impact student success in the County's Alternative Education Program. The purpose of this study is to help educators better understand which factors lead to **resilience** – success despite life challenges – for the adolescents in this Program.

PLAN OF STUDY:

Participating in this study involves the following. First, you are being asked to give permission (by signing and returning this form) to allow your child to **complete a questionnaire** in class during free-time. The survey asks him/her questions about his/her feelings and thoughts about family, school, and personal experiences. Examples include questions about family activities, attitudes about school, and attributions (i.e., how we explain the good and bad things that happen to us). The survey takes between **15 and 30 minutes** to complete.

If you allow your child to participate, his/her teacher also will be asked to complete a measure rating his/her behavior, the Behavior and Emotional Rating Scale, Second Edition (BERS-2, Epstein & Sharma, 2004). A copy of this scale is attached, and you also are asked to complete it and return it with your signed permission if you choose to be involved in the study. (If you do not wish to complete the BERS but will allow your child to participate, you may just return this signed form and the blank BERS).

Once you, your child, and his/her teacher have completed the measures, no further participation is required. (A very small number of students will be asked to complete a later interview with me and, if your child is selected, I will again ask for your written consent to talk with him/her at that time.) Your child will receive **raffle tickets** for returning this packet and for completing his/her survey. Then, a drawing will be will be held and randomly selected students and teachers will receive gift certificates to local restaurants and stores.

Returning this signed form will mean that you agree to allow your child to participate. If this form not returned, then it is understood that you do not wish to have your child participate in this research project and he/she will not be approached about the study.

VOLUNTARY PARTICIPATION:

Your decision to allow your child to participate in this research study is **completely voluntary**. You and your child are free to withdraw at any time without any penalty. Students with parent permission will be reminded that their participation is voluntary before the questionnaire is given out. Your decision about your child's participation will in no way affect his/her grades or student status.

BENEFITS/RISKS & CONFIDENTIALITY:

Your participation is **greatly appreciated** and can provide much needed information about how to best serve students in Alternative Education. Effective interventions for students can be identified and tried as a result of research projects like this one.

Although there are no known risks associated with this study, the questions on the survey do ask for personally-held attitudes and beliefs. Therefore, **students' responses will be kept confidential** and their student ID numbers, not their names, will be written on the surveys and data spreadsheets. Other information that will be collected by student number as part of the study will come from the Student Information System (SIS) and will include: IQ score (if available), offense leading to placement in alternative education, grade retention information, and free/reduced lunch and general or special education status. Information regarding number of arrests from the Department of Juvenile Justice (DJJ) also will be collected (if applicable).

Again, **your child's privacy and all research records will be kept confidential** to the extent of the law. Authorized research personnel, employees of the Department of Health and Human Services, and the USF Institutional Review Board, its staff, and other individuals acting on behalf of USF, may inspect the records from this research project. Results of this research may be published at a later date, but no information that identifies your child will be included.

CONTACT INFORMATION:

If you have questions about your rights as a person who is taking part in a research study, you may contact the Division of Research Compliance of the University of South Florida at (813) 974-5638. You also may contact either one of us with any questions or concerns about the study or your child's participation. ***Thank you so much for your time!***

_____   _____
Kelly Crawford, Ed.S.   Kathy Bradley-Klug, Ph.D.
Graduate Student   Co-Principal Investigator
Psychological and Social Foundations   Psychological and Social Foundations
University of South Florida   University of South Florida
813-368-4737   813-974-9486

Please detach and return the bottom half of this form with your signature.

_____

I, _____, have read the above information carefully. My

child, _____, has my permission to participate in the

research study described here. If I have questions or wish to refuse my child's participation, I

may contact Ms. Crawford at any time.

_____   _____

                 Signature   Date

<u>Resilience Research Study</u>

WHY AM I BEING ASKED TO TAKE PART IN THIS RESEARCH?

You are being asked to take part in a research study about "resilience," which means being successful in spite of stresses or challenges. You are being asked to take part because you are going to school at an alternative education center. If you participate, you will be one of about 200 people in this study.

WHO IS DOING THE STUDY?

The person in charge of this study is Kelly Crawford (PI) of the University of South Florida. She is being guided in this research by Dr. Kathy Bradley-Klug. Other people who you may see while you are on the study are Dr. Rance Harbor, School Psychologist.

WHAT IS THE PURPOSE OF THIS STUDY?

By doing this study, we hope to learn about the kinds of risk factors and protective factors that are related to being resilient. This way, we can learn what kinds of programs would best help students in alternative education to be more successful.

WHERE IS THE STUDY GOING TO TAKE PLACE AND HOW LONG WILL IT LAST?

The study will be take place in your classroom with your teacher there. You will be asked to fill out a survey that should take about 20 minutes to complete. This is all you need to do to volunteer for this study. Later, you may be asked to do an interview with the researcher but you can decide then if you would like to or not.

WHAT WILL I BE ASKED TO DO?

The survey has two parts, one that is about different topics that have to do with your thoughts about school, family, friends, your hobbies, and your appearance. The other part asks you to read simple scenarios and pick between two choices to explain what happened in them.

We will also be going to the Student Information System (the school's computer system) to gather information about participating students' IQ scores, whether they have repeated a grade, the behavior that got them moved to alt. ed., the kind of educational programs they are in (special versus general education), and whether they have free/reduced lunches. Juvenile Justice information (number of arrests) also will be collected for all students. You will not have to do anything for this part of the study and all students' information will be kept <u>private and confidential </u>by the researchers.

WHAT THINGS MIGHT HAPPEN THAT ARE NOT PLEASANT?

To the best of our knowledge, completing the survey will not harm you or cause you any unpleasant experiences. Although we have made every effort to try and make sure this doesn't happen, you may find that some questions may upset you. If so, we will tell you about some people who may be able to help you with these feelings.

WILL SOMETHING GOOD HAPPEN IF I TAKE PART IN THIS STUDY?

We cannot promise you that anything good will happen if you decide to take part in this study. However, you will be giving us useful information that can help us develop programs to help you and other students in alternative education.

DO I HAVE TO TAKE PART IN THE STUDY?

If you do not want to take part in the study, that is your decision and it will not affect your grades and/or student status. You should take part in this study because you really want to volunteer. If you decide to participate you still have the right to change your mind later. No one will think badly of you if you decide to quit.

WILL I RECEIVE ANY REWARDS FOR TAKING PART IN THE STUDY?

You will receive raffle tickets for taking part in this study. You will receive one for bringing back the parent permission form and another for filling out the survey. Several tickets will be drawn and the winners will receive gift certificates to local restaurants or stores.

WHO WILL SEE THE INFORMATION I GIVE?

Your information will be added to the information from other people taking part in the study so no one will know who you are.

WHAT IF I HAVE QUESTIONS?

You can ask questions about this study at any time. You can talk with your parents or other adults that you trust about this study. You can talk with the person who is asking you to volunteer. If you think of other questions later, you can ask them.

ASSENT TO PARTICIPATE:

I understand what the person running this study is asking me to do. I have thought about this and agree to take part in this study.

_____   _____
Name of person agreeing to take part in the study   Date

_____   _____
Name of person providing information to participant   Date

Resilience Research Study
Teacher Consent Form

The following information is being presented to help you decide whether or not you want to to be a part of a research study. Please read this carefully.

_____

PURPOSE OF STUDY:

Hello! My name is Kelly Crawford and I am a doctoral student in School Psychology at the University of South Florida. I am doing a study to learn about the risk and protective factors that impact student success in the County's Alternative Education Program. The purpose of this study is to help educators better understand which factors lead to **resilience** – success despite life challenges – for the adolescents in this Program.

PLAN OF STUDY:

Participating in this study involves completing the Behavior and Emotional Rating Scale – Second Edition (BERS-2, Epstein & Sharma, 2004) for one or more students you currently teach. (You will be provided with a student list and questionnaires following your agreement to participate). The survey takes between 5 and 10 minutes to complete, per student. Once you have completed the measure(s), no further participation is required.

You will receive raffle tickets for each completed questionnaire you return to the researcher. A drawing will be will be held and randomly selected students and teachers will receive gift certificates to local restaurants and stores.

VOLUNTARY PARTICIPATION:

Your decision to participate in this research study is completely voluntary. You are free to withdraw at any time without any penalty.

BENEFITS/RISKS & CONFIDENTIALITY:

Your participation is *greatly appreciated* and can provide much needed information about how to best serve students in Alternative Education. Effective interventions for students can be identified and tried as a result of research projects like this one.

There are no known risks associated with your participation in this study. Your privacy and all research records will be kept confidential to the extent of the law. Authorized research personnel, employees of the Department of Health and Human Services, and the USF Institutional Review Board, its staff, and other individuals acting on behalf of USF may inspect the records from this research project. Results of this research may be published at a later date, but no information that identifies you will be included.

CONTACT INFORMATION:

If you have questions about your rights as a person who is taking part in a research study, you may contact the Division of Research Compliance of the University of South Florida at (813) 974-

5638. You also may contact either one of us with any questions or concerns about the study or your child's participation. ***Thank you so much for your time!***

_____   _____

Kelly Crawford, Ed.S.   Kathy Bradley-Klug, Ph.D.
Graduate Student   Co-Principal Investigator
Psychological and Social Foundations   Psychological and Social Foundations
University of South Florida   University of South Florida
813-368-4738   813-974-9486

CONSENT TO TAKE PART IN THIS RESEARCH STUDY:

By signing this form I agree that:

- I have fully read or have had read and explained to me this informed consent form describing this research project.

- I have had the opportunity to question one of the persons in charge of this research and have received satisfactory answers.

- I understand that I am being asked to participate in research. I understand the risks and benefits, and I freely give my consent to participate in the research project outlined in this form, under the conditions indicated in it.

- I have been given a signed copy of this informed consent form, which is mine to keep.

_____   _____   _____
Signature of Participant   Printed Name of Participant   Date

Investigator Statement

I have carefully explained to the subject the nature of the above research study. I hereby certify that to the best of my knowledge the subject signing this consent form understands the nature, demands, risks, and benefits involved in participating in this study.

_____   _____   _____
Signature of Investigator   Printed Name of Investigator   Date

Resilience Research Study
Parent Consent Form for Student Interview

The following information is being presented to help you decide whether or not you want to allow your child to be included in the interview portion of the research study in which he/she participated last semester. Please read this carefully.

PURPOSE OF STUDY:

Hello! I would like to sincerely **thank you** for permitting your child to participate in my research project looking at the risk and protective factors that impact student success in the County's Alternative Education Program. Each student's contribution was very valuable in making this a worthwhile and meaningful project.

As you know from the first consent form you completed, the purpose of the study is to help educators better understand which factors lead to **resilience** – success despite life challenges – for the adolescents in this Program. There is one last part of the study for which I am requesting your child's participation. The information collected in this part of the project will shed even more light on the factors leading to resilient student outcomes.

PLAN OF STUDY:

You are being asked to give permission (by signing and returning this form) to allow your child to participate in **an individual, audiotaped interview** with me during free-time at school. The interview will be conducted with a small number of students who completed the original questionnaire. It contains questions about their thoughts and opinions having to do with family (e.g., how time is spent as a family, what kinds of rules they have at home), school (e.g., teacher characteristics that help them learn, lessons learned at alternative education that will help upon returning to their regular schools), and personal experiences (e.g., areas of personal strength, importance of friendships). Like the original questionnaire your child completed, this interview process is expected to take between **15 and 30 minutes** to complete. Each student will receive **$10.00** for his/her participation.

Returning this signed form will mean that you agree to allow your child to participate. If this form is not returned, then it is understood that you do not wish to have your child involved in this part of the research project and he/she will not be included.

VOLUNTARY PARTICIPATION:

Your decision to allow your child to participate in this phase of the research study is **completely voluntary**. You and your child are free to withdraw at any time without any penalty. Students with parent permission will be reminded that their participation is voluntary before the interview begins. Your decision about your child's participation will in no way affect his/her grades or student status.

BENEFITS/RISKS & CONFIDENTIALITY:

Your participation is **greatly appreciated** and can provide much needed information about how to best serve students in Alternative Education. Effective interventions for students can be identified and tried as a result of research projects like this one.

Although there are no known risks associated with this study, the questions in the interview do ask for personally-held attitudes and beliefs. Therefore, **students' responses will be kept confidential**. The number that was assigned to him/her as part of the first phase of the study will be used again to identify him/her when the audio-taped interview is transcribed.

Again, **your child's privacy and all research records will be kept confidential** to the extent of the law. Authorized research personnel, employees of the Department of Health and Human Services, and the USF Institutional Review Board, its staff, and other individuals acting on behalf of USF, may inspect the records from this research project. Results of this research may be published at a later date, but no information that identifies your child will be included.

CONTACT INFORMATION:

If you have questions about your rights as a person who is taking part in a research study, you may contact the Division of Research Compliance of the University of South Florida at (813) 974-5638. You also may contact either one of us with any questions or concerns about the study or your child's participation. ***Thank you so much for your time!***

_____   _____
Kelly Crawford, Ed.S.   Kathy Bradley-Klug, Ph.D.
Graduate Student   Co-Principal Investigator
Psychological and Social Foundations   Psychological and Social Foundations
University of South Florida   University of South Florida
813-368-4739   813-974-9486

Please detach and return the bottom half of this form with your signature.

I, _____, have read the above information carefully. My

child, _____, has my permission to participate in the

interview portion of the research study described here. If I have questions or wish to refuse my

child's participation, I may contact Ms. Crawford at any time.

_____   _____

Signature   Date

Appendix J – Child Assent For Interview Form

<u>Resilience Research Study</u>

WHAT AM I BEING ASKED TO DO?

Thank you for completing the questionnaires for the study about resilience in students in alternative education! Your input is very valuable. You and several other students are being asked to do one more thing as part of this study – to take part in a brief interview with Ms. Crawford (the same person who gave you the questionnaire) where she will ask you some extra questions about yourself and your family and school experiences.

WHO IS DOING THE STUDY?

Ms. Crawford still is being guided in this research by Dr. Kathy Bradley-Klug. Another person who you may see while participating in the study is Dr. Rance Harbor, School Psychologist.

WHAT IS THE PURPOSE OF THIS STUDY?

By doing this study, we hope to learn about the kinds of risk factors and protective factors that are related to being resilient. This way, we can learn what kinds of programs would best help students in alternative education to be more successful.

WHERE IS THE STUDY GOING TO TAKE PLACE AND HOW LONG WILL IT LAST?

The interview will take place at school in an available classroom and will be audio-taped. It should take about 20 or 25 minutes to complete. This is all you need to do as this is the last part of Ms. Crawford's study.

WHAT WILL I BE ASKED TO DO?

The interview information will be kept <u>private and confidential</u> by the researchers. The tape will be transcribed (which means that Ms. Crawford will type everything that is said on the tape) and she will put a number rather than your name on the interview forms that she types.

WHAT THINGS MIGHT HAPPEN THAT ARE NOT PLEASANT?

To the best of our knowledge, participating in the interview will not harm you or cause you any unpleasant experiences. Although we have made every effort to try and make sure this doesn't happen, you may find that some questions upset you. If so, we will tell you about some people who may be able to help you with these feelings.

WILL SOMETHING GOOD HAPPEN IF I TAKE PART IN THIS STUDY?

We cannot promise you that anything good will happen if you decide to take part in this study. However, you will be giving us useful information that can help us develop programs to help you and other students in alternative education.

DO I HAVE TO TAKE PART IN THE STUDY?

If you do not want to take part in the study, that is your decision and it will not affect your grades or student status. You should take part in this study only because you really want to volunteer. If you decide to participate you still have the right to change your mind later. No one will think badly of you if you decide to quit.

WILL I RECEIVE ANY REWARDS FOR TAKING PART IN THE STUDY?

You will receive $10.00 for participating in this interview.

WHO WILL SEE THE INFORMATION I GIVE?

Your information will be added to the information from the other people being interviewed and no one will know who you are.

WHAT IF I HAVE QUESTIONS?

You can ask questions about this study at any time. You can talk with your parents or other adults that you trust about this study. You can talk with the person who is asking you to volunteer. If you think of other questions later, you can ask them.

ASSENT TO PARTICIPATE:

I understand what the person running this study is asking me to do. I have thought about this and agree to participate in this part of the study.

_____   _____
Name of person agreeing to take part in the study   Date

_____   _____
Name of person providing information to participant   Date

About the Author

Kelly Crawford received her Bachelor of Arts Degree in Psychology in 1993 from Edinboro University of Pennsylvania where she graduated Summa Cum Laude. She earned her Master of Arts Degree in Clinical Psychology at EUP in 1994.

After serving as Staff Psychologist at a residential center for children with behavioral and emotional disorders in Erie, Pennsylvania, Kelly entered the School Psychology Doctoral Program at the University of South Florida. Honors earned at USF included the Florida Association of School Psychologists (FASP) Graduate Studies Award and the Provost's Award for Outstanding Teaching by a Graduate Student.

While in the Program, Kelly interned in Cuyahoga County School District in Cleveland, Ohio, at an alternative education/residential center and a Project Achieve school. She currently works at an outpatient center delivering individual and group psychological services in Tampa Bay. Kelly has coauthored two publications and has presented at both state and national conferences.