ABSTRACT

Title of Document: STUDENT RESILIENCY: A MIXED METHODS ANALYSIS OF COUNSELING GROUP EFFECTS

Cyril Pickering, Doctor of Philosophy, 2015

Dissertation Directed By: Associate Professor Emeritus William Strein
Department of Counseling, Higher Education, and Special Education

Student resiliency, or the internal resources that an individual possesses that enables success despite adversity, is a variable of interest, particularly for students who are at-risk for negative outcomes in school. This study examined the group counseling efforts of an alternative high school, looking at how group composition influenced the growth in scores on the Resiliency Scales for Children and Adolescents, a measure of student resiliency that students were given at the beginning and end of the year. In addition to this quantitative analysis, students who participated in the groups and counselors who facilitated the groups were interviewed regarding the effectiveness and challenges of the groups, as well as how the groups impacted Sense of Mastery, Sense of Relatedness and Emotional Reactivity, the three areas of resiliency that were being measured. Each interviewee provided feedback regarding ways that the groups could help students grow in resilience. Results from the quantitative analysis indicated the aggregated starting resiliency scores of the other group members had no impact on a student's growth in any

of the resiliency scales. A second analysis revealed some correlations between group growth in resiliency and a student's growth in resiliency, seemingly indicating that as the group improves in certain measures, individual growth is hindered. Results from the qualitative analysis revealed overall positive impressions of the group counseling experience and statements about how the groups helped improve resiliency. Several common themes among students and counselors emerged regarding the strengths and weaknesses of the group counseling approach. Implications for implementation and evaluation of group counseling are discussed.

STUDENT RESILIENCY: A MIXED METHODS ANALYSIS OF COUNSELING GROUP EFFECTS

By

Cyril E. Pickering

Dissertation submitted to the Faculty of the Graduate School of the
University of Maryland, College Park, in partial fulfillment
of the requirements for the degree of
Doctor of Philosophy
2015

Advisory Committee:
Professor Emeritus William Strein, Chair
Professor Emeritus Gary Gottfredson
Professor Dennis Kivlighan
Professor Colleen O'Neal
Professor Robert Marcus, Dean's Representative

© Copyright by
Cyril E. Pickering
2015

Table of Contents

Table of Contents ii
List of Tables iii
Chapter 1: Introduction 1
Definition of Terms 3
Research Question 4
Chapter 2: Review of Research 6
Risk Factors 6
Protective Factors 10
Resilience and Resiliency 14
Group Counseling 27
Chapter 3: Methods 31
Quantitative Study 31
Interview Study 39
Chapter 4: Results 41
Quantitative Analysis Results 41
Interview Analysis 48
Chapter 5: Discussion 74
Appendices 92
References 99

List of Tables

Table 1- Fall Resiliency Index Scores……..41

Table 2- Spring Resiliency Index Scores……..42

Table 3- One Sample T-Test of Change in Resiliency Scores……..43

Table 4- Correlations among RSCA scales- Fall and Spring Scores……44

Table 5- Correlations Between Fall Index Scores and Aggregated Partner Scores……..45

Table 6- Level 1 Model- Partner Aggregated Fall Scores…….……47

Table 7- Level 1 Model- Partner Aggregated Change Scores…….…..47

Table 8- Demographic Information for Interview Participants…….49

Table 9- Student Interviews- Factors Promoting Group Effectiveness……50

Table 10- Student Interviews- Factors Limiting Group Effectiveness…….54

Table 11- Student Interviews- Suggestions for Counseling Groups……..59

Chapter 1: Introduction

Schools are intended to promote academic growth among students, which can be a challenge when students have diverse academic and behavioral difficulties. Students who have emotional and behavioral difficulties have academic attainment and school completion rates lower those of students in other disability categories (Bradley, Doolittle, & Barlotta, 2008). In recent years schools have made an effort to identify students who may not respond to the broadly implemented educational program in an effort to provide early intervention to students who show signs of struggling in school (Glover & Albers, 2007; Severson, Walker, et al, 2008; Elliott, Huai & Roch, 2007). The growing prevalence of tiered approaches to prevention and intervention, such as Response to Intervention and school-wide positive behavior supports, have created an emphasis on appropriate interventions for students at different levels of need. In these systems, universal screening, targeted intervention, and progress monitoring are used to guide service delivery to those students who are at risk for negative academic, behavioral, or social outcomes. These "at-risk" students can potentially face a variety of different negative trajectories, depending on the domain of concern. Schools attempt to actively engage in identifying students who have a high probability of negative academic outcomes, such as academic failure, grade retention and dropping out of school, or students who may potentially have behavioral difficulties and social concerns, such as high rates of suspensions, truancy, drug use, gang involvement. Early identification of these potential problems could lead to preventive intervention.

When planning and conducting educational interventions, it is important to identify the appropriate domain to target, ensuring that the intervention is reaching the

intended population. While schools have traditionally used teacher referrals as the procedure to identify students in need of assistance, relying solely on teachers to identify students may lead to an under-identification, and consequently, under-treatment of high need students (Eklund, Renshaw, Dowdy, Jimerson, et al, 2009). Universal screening procedures are an effective way to identify indicators that could predict later negative outcomes (Severson, Walker, et al, 2008; Elliott, Huai & Roch, 2007). These indicators, or "risk factors", are often overlapping, because a single risk factor can be predictive of several different kinds of negative outcomes. Risk factors can also have multiple sources, with aspects of a student's family, neighborhood, and school environment potentially playing a role in negative outcomes.

In addition to these risk factors, it is important to consider protective factors that buffer a student from some of the negative future consequences. Just as risk can be identified from multiple sources, students can have several different areas of their lives that may buffer them from negative outcomes. Resiliency is one of these protective factors that can be examined as a potential mechanism through which students can be protected from adverse circumstances. Studying resiliency will aid our understanding of factors that are important to help at-risk students succeed.

Different intervention approaches can impact risk and protective factors. For socio-emotional variables, such as resiliency, schools often use counseling groups as an intervention approach. Counseling groups are an efficient way to maximize a school's resources, since groups can be as effective as individual counseling sessions and are more cost effective, reaching a multiple group members simultaneously (Corey, Corey & Corey, 2010; McRoberts, Burlingame & Hoag, 1998). Psycho-educational and

counseling groups in schools have also been shown to be an effective intervention in a number of different problem areas (Gerrity & DeLucia-Waack, 2007). All of this makes group counseling promising approach for schools who desire to influence socio-emotional variables, like resiliency, which may positively affect student outcomes. This study examines counseling group dynamics and investigates the quantitative and qualitative impact that the groups had on a students' resiliency.

Definition of terms

Students who are at risk of failing or dropping out of school are often hindered by a variety factors connected with different aspects of their personality, behavior, and environment. These variables, which will be referred to as "risk factors" are predictors of student failure. One important note, however, is that risk factors do not impact all students the same. Some students are able to succeed and learn, despite experiencing the same negative life events as their peers. Students have internal and external variables that buffer them from the risk factors. These variables can be called "protective factors". For the purposes of this review, interaction between internal and external factors enabling a student to thrive in the context of adversity will be referred to as "resilience" (Luthar, Cicchetti and Becker, 2000). Inherent to this definition is the presence of severe adversity and a student's ability to succeed despite that adversity. "Resiliency" on the other hand, will refer to the set of internal attributes a student possesses gives him/her the ability to succeed, should an adverse situation arise (Luthar, Cicchetti and Becker, 2000). This definition does not presuppose the actual presence of severe threat or risk of failure, but it is an internal attribute that any individual possesses. For the purposes of this study, particular attention will be paid to the concept of resiliency, since it is an internal attribute

that can potentially be developed. If the internal factor of resiliency can be measured and improved through intervention, schools will have a way to direct their efforts to assist students who are at risk for failure and the will help build necessary coping skills for their students.

To provide appropriate interventions, two things are necessary: (a) accurate measurement and (b) effective intervention. This study analyzed the attempt by one school to measure and improve student resiliency through the group counseling services provided by the school counseling staff. This study is a mixed-methods analysis of this school's counseling groups and factors that influenced their effectiveness.

Research Questions

Just as definitions of resiliency are varied, research looking at resiliency interventions includes a variety of different methods and has examined various outcomes. Many schools utilize counseling groups as a means of primary and secondary prevention for students who need to build socio-emotional skills. Examination of the effects of these groups on resiliency may provide information about how schools can help students develop the skills to manage negative life events. To that end, this study will examine the following questions:

1. To what degree does the resiliency of other participants in a group influence a student's growth in resiliency?

The first question explores the starting composition of the group. If group composition has a significant effect on student outcomes this information might be used to guide placement of students into groups to enhance the benefit to the participants. This

study examines the influence that other group members have on an individual student's resiliency. The intention is to use results from this analysis to inform the prescreening and group formation procedures.

2. What were the experiences and perceptions of selected stakeholders related to the group interventions targeting resiliency?

The second research question will provide information about the specific factors in the context of the school that may influence the effectiveness of the group intervention. Whereas the first part of the study is a quantitative analysis of the group intervention, this second question is explored through a series of interviews with a variety of stakeholders in the school, including former group participants, group facilitators, and the coordinator of the counseling program. The interviewees were asked questions about their perceptions of the effectiveness of groups, treatment fidelity, and their perspectives about the kinds of interventions needed to build student resiliency.

Chapter 2: Review of Resiliency Research

Risk Factors

Depending on the particular negative outcome that one looks at, it is possible to find a variety of different markers which can be considered risk factors. These risk factors are influential and can have a larger influence than protective factors (Cleveland, Feinberg, Bontempo & Greenberg, 2008). Risk factors can appear in several different domains, but for the purpose of this review, they will be organized as occurring in three different areas: the family, the social context, and internally.

Family Risk Factors

Family factors play a large part in a student's academic progress. Some of this is context and age dependent. It appears that family-based risk factors are more influential for students in rural environments, compared to students in urban and suburban areas (Clark, Nguyen, & Belgrave, 2011). Families also have more influence in younger students, with the effect diminishing as the student grows older (Cleveland, Feinberg, et al, 2008). Crosnoe (2006) found that the single parent households and low parental educational attainment were risk factors for school failure. A parent's educational attainment has consistently been identified as a marker for students who will have academic difficulties later in life (Zhan, 2006). Low socio-economic status is frequently cited as a marker of poor student outcomes. Students from economically disadvantaged families have significantly poorer odds of graduating from high school (Pharris-Ciurej, Hirschman, & Willhoft, 2012). Additionally, teachers are more likely to identify low SES students as having behavioral problems (Young, Sabbah, Young, Reiser, et al, 2010).

Family markers of risk were consistently found in the literature to be important predictors of non-academic outcomes. Family variables can predict negative behaviors in a child's future. Collins and colleagues (2009) found that family conflict and parental attitudes were significant correlates of drug use, based on a survey of eighth grade students. Family conflict, poor family management and family attitudes were also predictive of delinquency (Fagan, Van Horn, Hawkins & Arthur, 2007). Factors within the family have been connected to suicidal ideation (Fitzpatrick, Piko & Miller, 2008). Collins and colleagues (2009) found that family conflict and parental attitudes that were favorable to drug use predicted drug use in a survey of eighth grade students. Parental influence on drug use seems to be stronger when the child is younger. A qualitative study of drug use among Native American students revealed that same generation family, including siblings and cousins, can be an extremely influential risk factor for initiation of drug use (Waller, Okamoto, Miles & Hurdle, 2003). Espelage and colleagues (2013) found that family violence is a significant predictor of subsequent substance use in middle school students, with a stronger relationship among female students.

Environmental Risk Factors

Risk factors related to a student's social context can come in many different forms. The most immediate social context for most students is the neighborhood in which they grow up and live. A student's living environment can moderate a student's susceptibility to certain types of risk. Students who live in urban are more affected by individual and peer risk factors, while rural students more influenced by family risk factors (Clark, Nguyen & Belgrave, 2011).

Influence can also come from the school context and from peers. Peer attitudes and behaviors have an influence on a variety of different outcomes; peer alcohol use, risk-taking propensity and peer pressure predict student alcohol use (Patrick & Schulenberger, 2010; Paschall, Ringwalt & Flewelling, 2002). Peer connections also have an influence on academic behaviors, as association with delinquent peers is a significant predictor of truancy (Henry & Huizinga, 2007).

School related variables can have an influence on academic and non-academic outcomes. While the school context can provide resources to develop resilient students, the school environment can also be an area of exposure to risk. Marsh and Evans (2007) found that 66% of high school students, surveyed from several states, reported that school was the location where most of the violence in their lives occurred. Students who report unsafe school environments and gang presence in schools have increased rates of truancy (Henry & Huizinga, 2007). Low teacher-student bonding is a significant risk factor for both academic failure and alcohol use in high school students (Crosnoe, 2006). In an interview study of over 200 students who dropped out of high school, conflict with teachers was the third most frequently cited reason for leaving school (Meeker, Edmonton & Fisher, 2008). Overall, quality of the student-teacher relationship has a positive correlation with classroom engagement and academic achievement (O'Connor & time in a student's development. Pharris-Ciurej and colleagues (2012) found that "high school shock" or a drop in grades, unexplained by previous academic difficulties, which can occur when a student moves from middle to high school, is the largest predictor of high school dropout. They attributed this effect to a failure to adapt to the high school context, which can be very different from middle school.

Individual Risk Factors

Individual risk factors are vital to understanding and predicting negative student outcomes. Cleveland and colleagues (2008) found that, although family and peer risk factors are important in predicting substance use, individual risk factors were the strongest predictors. Demographic variables can predict exposure to risk. Male students may have greater exposure to risk factors for delinquency and can be more strongly harmed by those risk factors than female students (Fagan, Van Horn, et al, 2007), though Thompson and colleagues (2013) found few differences among correlations between males and females among negative outcomes and risk factors. A student's race can also play a role in exposure and impact of risk factors. For example, a study of risk factors for smoking among eighth grade students found that Asian-American students had the lowest exposure to risk factors, but were affected the most by the exposure, while the trend was in the opposite direction for African American students, who had the highest exposure, but were less vulnerable to that exposure (Nasim, Berry, Belgrave, Corona, et al, 2011).

Identifying student risk factors can be useful in predicting poor academic outcomes. Various socio-emotional and behavioral factors have been linked to student achievement, including self-regulation (Evans & Rosenbaum, 2008), school adjustment (Teo, Carlson, Mattieu, Egeland, et al., 1996), and self-concept (Swann, Chang-Schneider & McClarty, 2007). Students with two or more risk factors, including low marks in academic engagement, academic self-concept and teacher relationships can be accurately identified as being a high risk for academic failure (Lucio, Hunt & Borbovalova, 2012). Flagging students for academic failure should include past academic performance, but behavioral and psychosocial variables add incremental predictive validity (Casillas,

Robbins, Allen, Kuo, et al, 2012). A student's behavior in school can have impacts outside of school also. Gruber and Machamer (2000) found that behaviors that constitute an educational risk, like skipping school and substance use during school, also increase the risk of negative outcomes outside of school, such as delinquency and risky sexual behavior. Students identified as having a learning disability have greater risk of depression and suicidal ideation than non-identified students (Svetaz, Ireland & Blum, 2000). Other personality-based factors have been shown to be effective in predicting non-academic outcomes.

Protective factors

Just as there are risk factors occurring in multiple domains, protective factors can also come from a variety of sources. Often, protective factors are simply risk factors expressed in the opposite direction. For example, some studies identify single parent households as a risk factor (Crosnoe, 2006), while others refer to two-parent households as protective factors (Collins, Pan, et al, 2008). Apart from these factors which are on the opposite ends of the same spectrum, there are protective factors that operate uniquely, as a positive buffer for students. As with the risk factors, protective factors can be explored as occurring in family, environmental and individual domains.

Family protective factors can come from family structure, practices or attitudes. As previously mentioned, SES and having both parents in the household are both predictive of student outcomes. Family attachment was found to be a protective factor for a variety of different outcomes, including alcohol and drug use (Cleveland, Feinber, et al, 2008; Collins, Pan, et al, 2008), suicidal ideation (Hall-Lande, Eisenberg, et al, 2007),

comorbid alcohol use and depression (Mason, Hawkins, Kosterman & Catalano, 2010) and delinquency (Fagan, Van Horn, et al, 2007). Parental involvement can help protect a student against bullying victimization (Harlow & Roberts, 2010; Stadler, Feifel, et al, 2010), academic failure (Casillas, Robbins, et al, 2012) and substance use (Clark, Nguyen and Belgrave, 2011). Parental disciplinary practices also have an effect on youth outcomes. Consistent disciplinary practices have been found to help protect against substance use (Cleveland, Collins, et al, 2010), academic difficulties and truancy (Gutman, Sameroff & Eccles, 2002). Parental attitudes and behaviors can be an important source of support for students who are at risk.

A student's social environment can provide a variety of different protective factors. The urbanicity of a student's environment can be a determining factor in what protective resources a student uses, with urban students utilizing internal self-control as a protective resource and rural students engaging and attaching with care givers more frequently (Bender, Fedor & Carlson, 2011). Having a positive neighborhood environment with norms that encourage prosocial behavior can prevent students from getting involved in substance use. Neighborhood attachment is also important (Cleveland, Collins, et al, 2010). Peers are important influencers in the positive direction. Social bonds with prosocial peers can be protective against delinquency (Hart and Mueller, 2013), violent behavior (Herrenkohl, Lee, et al, 2012), alcohol-use (Paschall, Ringwalt, et al, 2002) and truancy (Henry & Huizinga, 2007). Among homeless youths, having adult support from the community was a protective factor against substance use (Fergueson & Xie, 2012).

Schools environments can be protective factors. Schools provide access to supportive adults and can have influence on many different outcomes. A supportive student environment, defined as a positive school climate, teacher support, and school attachment, can help prevent maladjustment, even in students who have had negative life events (Stadler, Feifel, et al, 2010). A prosocial school environment can also help prevent delinquency among middle and high school students (Lo, Kim, Allen, Allen, et al, 2011). Teachers are key figures in providing school-based protective factors. Positive teacher practices and teacher praise are a protective factor against alcohol use (Pachall, Ringwalt, et al, 2002) and can be used to predict truancy (Henry & Huizinga, 2007). A student's feelings of belongingness in a school can predict many outcomes. School attachment and bonding with school can protect against comorbid alcohol use and depression (Mason, Hawkins, et al, 2010) and engagement in violent acts (Herrenkohl, Lee, et al, 2012). School attachment is also related to positive psychological health (Hall-Lande, Eisenberg, et al, 2007). Positive feelings about their school can also buffer the effects of social isolation, leading to less emotional distress (Svetaz, Ireland & Blum, 2000).

Individual protective factors have been shown to be the strongest buffer to prevent poor student outcomes (Hawkins, Van Horn, et al, 2004). Some protective factors are linked to the student's behavior. For example, students who perform well in school are less likely to be truant (Henry & Huizinga, 2007). Academic achievement also protects against depressive feelings that can occur in socially isolated students (Hall-Lande, Eisenberg, et al, 2007). Student behavior is often a result of underlying attitudes and beliefs, which many studies have examined as protective factors. Educational aspiration and positive attitudes toward school are linked to lower levels of substance use (Brown,

Schulenberg, et al, 2001; Clinton-Sherrod, Sobeck, Abbey, Agius, et al, 2005). Herrenkohl and colleagues (2012) found that students who were low on measures of risk taking and who were able to resist peer pressure had lower levels of violent behavior. Decision-making skills and low risk-taking have also been cited as protective factors for a number of different outcomes, including depression and substance use (Mason, Hawkins, et al, 2010; Clinton-Sherrod, Sobeck, et al, 2005) and suicidal ideation (Fitzpatrick, Piko & Miller, 2008). Other individual protective factors, such as positive self-esteem and religious belief, can also act as a buffer for outcomes like suicidal ideations and substance use (Fitzpatrick, Piko & Miller, 2008; Brown, Schulenberg, et al, 2001). Evidence suggests that these protective factors can change over time. In an examination of youth alcohol use, Clinton-Sherrod and colleagues (2005) found that students who began drinking between two survey administrations also showed decreases in protective factors, such as self-efficacy, school attitudes, and resistance to peer pressure.

In a qualitative study of "at-risk" students who graduated high school, Murray and Naranjo (2008) found that students reported several sources of supports, which fell generally in four domains. On the individual domain, students talked about themes of self-determination, having a willingness to seek support, and having a belief in the value of an education. The second domain of support was family support factors. The two major themes under this heading were Parental Involvement and Parental Structure, referring to parental restrictiveness and monitoring. The third domain was in the Peer Factors. The sole factor under this headline was termed "isolationism", which the researchers commented that they considered placing under the "risk factors" section of

their study. This factor referred to the reports from a majority of the respondents that they had few or no close friends, preferring to avoid contact with negative peer influence, preferring to focus on achieving their goals. The final domain was Teacher Factors. These students identified specific teachers with whom they had a close relationship, indicated that they received instructional support to understand classroom content, and were able to build strong connections with teachers who were of a different race. From this small sample of students, protective factors from each of the previously named domains were evident.

Resilience and Resiliency

. Examinations of at-risk students often center, either implicitly or explicitly, around the idea of resilience. Although resilience can be defined in many different ways, a study by Von Secker (2004) defined the construct in a way that is particularly useful for educational research. In this longitudinal study, tracking academically at-risk students from elementary through high school, Von Secker found that home, school and individual factors all contributed positively to students exceeding academic expectations, given their risk factors. The phrase "academic resilience" was used to describe the combination of variables which allowed the students to succeed. Resilience can be defined as an interactive effect of student characteristics and environmental protective factors that buffer a student from the effects of major risk factors and allow the student to succeed in spite of adversity (Esquivel, Doll, and Oades-Sese, 2011).

Borman and Overman (2004) utilized this definition of resilience as an outcome measure to determine which protective factors encouraged resilience. They found that

several of the protective factors previously discussed, specifically self-esteem, academic self-concept, classroom engagement, and disposition to school predicted resilience. Some studies have consolidated this concept and equated resilience with protective factors, contrasting risk and resilience as opposing ends of the spectrum (e.g., Bennett, Elliot & Peters, 2005; Moon, Jackson & Hecht, 2000). These studies appear to suggest that resilience is best understood as a consolidation of the protective factors that have been discussed earlier.

Christiansen and Evans (2005) tested a variety of hypothetical models of resilience to discover general patterns in how students, in the aggregate, react to adversity and protective factors. A Compensatory Model posited that protective factors offer equal protection, regardless of levels of risk. A Risk-Protective Model includes an interaction between risk and protective factors, where protective factors offer more help as levels of risk increase. A Protective-Protective Model suggests a similar model, but additional protective factors offer additional protection. Results from this study, however, supported the fourth model, called the Challenge Model, which stated that the negative outcomes initially decrease with as low levels of risk factors are added, up to a certain point, then increasing afterwards as the amount of risk increases. Beyond low levels of adversity, increased risk factors result in harm to the student (Christiansen & Evans, 2005; Marsh, Evans & Weigel, 2009). It appears that exposure to some of the risk factors may be beneficial to youth, but increasing numbers of risk factors quickly resulted in poor outcomes, which in this study was peer victimization. However, the model does not explain why different students, when faced with the same levels of risk and protection, can perform at different levels.

Morales (2008) proposed a framework for resilience that takes into account its multidimensional nature, interaction between risk and protective factors, and the internalization of the process of resilience. He interviewed 50 college aged students who were able to become successful, despite growing up in disadvantaged situations. These students, described as “academically resilient” reflected on the attributes of their educational history that allowed them to be successful despite the challenges. Their responses were used to develop a model explaining the process of resilience. At the center of the model was Emotional Intelligence. The majority of the participants reflected on the importance of emotional control despite stressful situations, impulse control, and effective decision making. From that foundation, the first step is a realistic evaluation by the student of major risk factors in his life. After that, the student begins to seek out and acquire protective factors to mitigate the influence of the risk factors. The third step in the model is the phase where the student actively engages the protective factors that he possesses, enabling him to succeed academically. In the fourth step, the student begins to build self-efficacy, discovering what works and how to effectively utilize his skills. The final stage of the model is enduring motivation, which is the effective and habitual use of strategies to continue success and face new challenges. This conceptualization of resilience provides a picture of the interaction between external and internal protective factors, emphasizing how successful students process and overcome challenges. This gives an indication of some of the desirable factors that a student may pursue to help his academic progress.

Internal student factors appear to have a unique contribution to student success and are worth examining separately from the preceding discussion of resilience.

Individual protective factors have been shown to be the strongest buffer to prevent poor student outcomes (Hawkins, Van Horn, et al, 2004). Luthar, Cicchetti and Becker (2000) label these internal protective mechanisms as "resiliency", which is a different construct from "resilience." Though the terms are often used interchangeably, one major difference is that resiliency does not require the existence of adversity, since it is an attribute of the student's personality, while resilience is, by definition, the response to risk factors. It is described as "a set of traits reflecting general resourcefulness and sturdiness of character, and flexibility of functioning in response to varying environmental circumstances" (Luthar, Cicchetti and Becker, 2000, pp 546). Thus, any individual can have "resiliency", depending on their personality, though "resilience" is only applicable to a discussion about how protective factors interact with risk factors to promote positive outcomes. More features of resiliency will be discussed later, as measurement of resiliency is explored.

Resiliency is important to consider in improving individual student academic outcomes. Ego resilience refers to a student's locus of control and ability to adapt to environmental changes and has been studied as an internal factor that affects student outcomes. Ego resilience can predict internal distress among at risk students (Trask-Tate, Cunningham & Lang-DeGrange, 2010). Ego resilience was found to be positively associated with academic outcomes, controlling for cognitive ability and SES, suggesting that it is a meaningful factor in academic outcomes (Kwok, Hughes & Luo, 2007). Ego resilience, along with social competence, fully mediates the relationship between a student's maltreatment and behavioral maladjustment (Shonk & Cicchetti, 2001). Several factors can influence a student's locus of control and sense of understanding the world.

Some students may have a “resilient personality”, as measures of agreeableness and conscientiousness are positively related to ego resilience. Maltreatment and other risk factors also appear to be related to a student’s ego resilience and sense of coherence (Shonk & Cicchetti, 2001; Evans, Marsh & Weigel, 2009).

Measurement and Resiliency

Resiliency measurement is an area that is continuing to evolve. Windle and colleagues (2011) reviewed several measures of resilience and concluded that the measurement approaches at the time did not have enough validity and evidentiary foundation for any particular measure to be considered a “gold standard” of measuring resiliency. In addition, less than half of the 15 measures were applicable to youth and adolescents. Among the measures were those some which measured resilience as the interactive processes that occur with the respondent and his environment, though some measures focused only on the attributes of the person completing the measure.

Since resilience is conceptualized as an outcome rather than an internal attribute, it can be difficult to measure. Various attempts have been made to quantify the aggregated protective factors that a student possesses. One such measure is the Child and Youth Resilience Measure , which attempts to measure student, family and community protective factors in a standardized assessment (Daigneault, Dion, et al., 2013) Resiliency, however, since it can be defined as an internal student attribute can be measured and defined as an aspect of a student’s internal and external behavioral functioning . One measure, the Devereux Early Childhood Assessment (DECA) examines resiliency in children ages 2-5 years old (Bender, Fedor & Carlson, 2011). This scale focuses exclusively on the behaviors of the child, as reported by the child’s preschool

teacher. The DECA measures along three dimensions: Initiative, Self-Control, and Attachment. The assessment also includes a measure of behavioral concerns. Through the use of behavioral reports, the DECA attempts to measure some of the behaviors that are markers of skills and attributes of the child that would provide resources to draw upon in the case of adverse situations.

Another recent scale uses a student's self-reported beliefs and feelings to quantify resiliency. Prince-Embury (2007) developed the Resiliency Scales for Children and Adolescents (RSCA), a measurement system designed for use in school settings to operationalize resiliency and to provide a model for potential intervention. In the same way that the DECA conceptualizes resiliency for preschool students, the RSCA attempts to define resilient tendencies in youth from ages 9-18 years old. The scales of the RSCA also mirror the scales measured by the DECA. The RSCA consists of three scales: the Sense of Mastery scale, the Sense of Relatedness scale and the Emotional Reactivity scale. Using these three scales, the RSCA provides two index scores. The first is the Resource Index, which is the average of the Sense of Mastery and Sense of Relatedness scales, giving an indication of the child's internal protective factors. The second index is the Vulnerability Index, which is the difference between the Emotional Reactivity scale and Resource index, providing a comparison between the child's protective resources and his internal emotional difficulties. The three scales provide a developmentally appropriate guideline for measuring student resiliency, as well as potential areas of intervention.

The Sense of Mastery scale measures a student's self-efficacy and feeling of being rewarded by their environment. This concept has long been associated with positive academic and behavioral outcomes in students. Sense of Mastery affects a

student's aspirations, motivation and academic accomplishments. Academic self-concept, which is a student's beliefs about their own academic ability, is positively related to academic achievement, likely in a bidirectional relationship (Marsh, 1992; Valentine, Dubois, & Cooper, 2004; Pullmann & Allik, 2008; Guay, Marsh & Boivin, 2003). Students with high self-efficacy are more adaptive to stressful situations. Borman and Overman (2004) found that several of concepts related to Sense of Mastery, specifically self-esteem, academic self-concept, classroom engagement, and positive disposition toward school enabled low SES students to succeed academically, despite their disadvantages. A student's locus of control is an important variable in determining the resiliency of the student. Wishful thinking and avoidance coping are negatively associated with resilience, while problem-solving coping has a positive association with the student's outcomes (Markstrom, Marshall, & Tryon, 2000).

Conducting an intervention that targets a child's Sense of Mastery can be a challenge. A student's self-perceptions are, in large part, determined by his past self-perception and academic performance (Caprara, Vecchione, et al, 2011). There is also a correlation between students' resiliency factors and their personality characteristics (Caprara, Vecchione, et al, 2011; Kwok, Hughes, & Luo, 2007). Though these seem like very stable factors, it is possible to target Sense of Mastery directly. The area of Strengths-Based Counseling provides a model for creating growth in this area. The strengths-based model (Smith, 2006) is based on the idea that counseling is most effective when the client's strengths are the focus of the sessions, rather than the client's deficits. Smith (2006) proposed a framework for strengths-based work that eventually leads to building self-efficacy and resilience in the youth. Among the stages of the

approach are identifying strengths, instilling hope, identifying problems and working toward solutions, building competence, and empowering. All of this is working towards allowing the student to reframe their current problem and developing independence in overcoming the adversity (Smith, 2006). This changing of the student's mind is important, since convincing a student that change is possible will encourage achievement. Students who have a fixed mindset, meaning that they believe that personal characteristics cannot be changed, have poorer academic outcomes and coping skills than students who have a growth mindset, believing that these abilities can be developed and grown (Yeager & Dweck, 2012; Stipek & Gralinski, 1996).

The implementation of these strategies in a systematic way can be a difficult. Donohoe and colleagues (2012) used a computer-based program to promote a growth mindset in students, hoping to modify students' overall resiliency, as well as their Sense of Mastery and beliefs about intelligence. The program guides the student through lessons about the brain and promotes the idea that intelligence can be changed with effort. The intervention had no effect on resiliency and only had a short term effect on the students' belief in their ability to grow their intelligence. Other factors related to student perspectives can be altered. One such successful program is the Resourceful Adolescents Program. One analysis of this program (Shochet, Dadds, et al, 2001) found that the school-based program was effective in reducing feelings of hopelessness in secondary school students, compared to the non-treatment group. In the same study, the parent component of the program was also found to be effective. School-based prevention programs can be effective in providing support for student beliefs, raising hope for the

possibility that Sense of Mastery can be targeted for intervention within the educational curriculum.

The Sense of Relatedness scale measures a student's feelings of having firm relationships with others. Importantly, this scale does not necessarily measure a student's actual relational resources, but their feelings of having relationships which they can draw upon for help. Relationships with others provide valuable resources for students, often helping to support a student in development of the student's Sense of Mastery. These benefits can be expressed in two primary ways. First, the relationship may provide a specific support to help the student with a particular situation. Second, the student benefits through a cumulative sense of well-being as a result of the relationships that he has built. Students that lack peer attachment are significantly more likely to be truant later in school (Woodward & Fergusson, 2000). Having poor peer relationships harms school engagement at an early age (Perdue, Manzeske & Estell, 2009). Connecting with school personnel is also vital, since poor relationships in school have a detrimental effect on student progress. The strength of the student-teacher relationship is positively correlated with academic achievement and acts as a buffer against impacts stemming from a negative home environment (O'Connor & McCartney, 2007), and lack of a relationship to teachers has been linked to poor school attendance (Moos & Moos, 1978; Hallinan, 2008). A study of middle school students shows that students who felt supported by their teachers had higher self-esteem and lower depressive symptoms, though this study also found that student's sense of support declined through the course of middle school (Reddy, Rhodes & Mulhall, 2003). This signals a need to provide support for students in building their relationships with significant people in their lives.

The Check-and-Connect model is an example of a program that successfully builds a relationship between the school and the student, while also creating a bond with the family. The goal of the program is to maintain and improve on school engagement, which is one of the most important factors in the student coming to school. This is accomplished by assigning a monitor to at-risk students, who meets with the students daily, connects with the home and discusses goals and progress with the students. The results of this program have been positive. School engagement, as measured by teacher ratings of the student's behavior, is significantly related to the student's relationship with the monitor. Perceived closeness to the intervention staff was also related to positive outcomes in attendance (Anderson, Christenson, Sinclair & Lair, 2004). The program successfully improved the engagement of at-risk students, as measured by their attendance and classroom behavior. Longitudinal studies have also confirmed the effectiveness of the program in promoting positive outcomes in students (Sinclair, Christiansen, et al, 2003).

Various researchers have compiled suggestions for building relationships with students. Murray (2002) recommends that, after the need for strong student-teacher relationships is recognized, teachers should create opportunities for students to connect with them, recognizing that the teacher will also need to make an effort to learn more about the student's background and interests. Additionally, teachers should become more aware of the nature of classroom interactions and model appropriate behavior. Sinclair and colleagues (2003) add additional suggestions, based on the experience of monitors in the Check-and-Connect program. They suggest that warning signs should be tracked for intervention, families should be involved at every stage, and student progress should be at

the forefront of the relationship, with a clear message about the importance of the student's education. These suggestions, among the others suggested by these authors, will assist teachers and school staff in their thinking about building a student's Sense of Relatedness.

The Emotional Reactivity scale measures the tendency of a student's emotional state to overwhelm his capacity to control himself. This negative internal attribute is detrimental to student coping, making it more difficult to regulate emotions and return to a calm state following an emotional reaction (Prince-Embury, 2011). Impulsivity has been connected with delinquency, substance use, and a number of other negative outcomes (Biederman, Monuteaux, et al., 2006). Students who act out externally are also more vulnerable to internalizing problems. Self-regulation is a positive attribute that is linked with academic success. Students who are able to regulate their emotions tend to have more empathy and better social relationships than students who have less skill at regulating themselves (Bandura, Caprara, et al, 2003). This skill is also related to teacher interactions. Teachers also value self-regulation. Some teachers ranked self-regulation as n more important indicator of school readiness than academic skills, and this was particularly true for more experienced teachers (Lin, Lawrence & Gorrell, 2003). Redirection of negative emotions and having a higher threshold of tolerance for negative stimuli is vital for students to be able to succeed.

Several intervention approaches have been suggested for students with behavioral problems and with high emotional reactivity. Banks (2011) suggests Rational Emotive Behavioral Therapy, a therapeutic approach focused on changing maladaptive thoughts and behaviors, as a potential approach that teachers can use in the classroom to address

emotionally reactive students. REBT has been used effectively in school-based groups to help restructure irrational beliefs in students and help them behave more adaptively (Banks, 2011). An examination of the Prepare Curriculum, a program based on cognitive-behavioral theory, found that students showed improvement on self-reported scores on the Emotional Regulation Scales-Youth Version, though scores from parents' ratings did not differ significantly from ratings given prior to the beginning of the program. In a study of a behavioral support group that was not based on any particular therapeutic approach but drew inspiration from Gardner's Theory of Multiple Intelligences, Mowat (2010) found that students were more able to regulate their behavior after the intervention.

The Coping Power program has had consistent success improving outcomes for students with difficulty regulating emotions. The program is a targeted, cognitive-behavioral theory based prevention program, designed to prevent conduce problems for students in early in their education. The program has a student component, intended to reach the child emotional awareness, goal setting, social skills, and relaxation techniques. There is also a 16-session parent component, teaching parents how to set appropriate consequences, reinforce positive behavior, and support academic skill, among other important parenting strategies (Powell, Boxmeyer, et al, 2011). The program has been effective in creating change in youth with behavioral problems. In a study of students in middle school, teacher ratings of student hyperactivity decreased following the intervention (Jerucska, Hamilton & Peterson, 2011). For universal prevention programs, it is desirable to see long term benefits from the intervention, even after the student is no longer involved in the program. The Coping Power program shows these longitudinal

effects. Several years after the program ended in a group of students, Lochman and colleagues (2013) found a linear decline in aggressive behavior.

A study of the research base for students with emotional and behavioral difficulties found that there needs to be more attention given to interventions for these students (Carter, Lane, et al, 2011). Of the 81 articles found, less than half of the studies (34) looked at self-management as an intervention outcome, while many intervention studies lacked vital data about the treatment integrity and details about the population being studied. The study highlighted the gaps in the literature base, including the lack of studies on high school students and the need to include a diverse population of students in future interventions.

Several studies have sought to influence resiliency as a whole, rather than intervene on the components of resiliency. The results of these studies have been mixed. The Penn Resiliency Program is a 12-week, group-based, cognitive-behavioral intervention. Studies of the program have found mixed results in prevention of depressive symptoms. One study found that depressive symptoms were reduced for Latino students, but not for African-American students (Cardemil, Reivich & Seligman, 2002). Another study of the Penn Resiliency program found that there was a positive effect in two out of the three schools studied, though no effect on the third school (Gillham, Reivich, Freres, Chaplin, et al., 2007). Some other interventions have showed promising, but inconclusive results. Donohoe and colleagues (2012) used a computer-based program to promote a growth mindset in students, hoping to influence students' overall resiliency, as well as their sense of mastery and beliefs about intelligence. The program guides the student through lessons about the brain and promotes the idea that intelligence can be changed

with effort. The intervention had no effect on resiliency and only had a short term effect on the students' belief in their ability to grow their intelligence. Riley (2012) examined the Seasons for Growth program, which is a group intervention targeted at students who are experiencing grief due to a death in the family. The program did not have a significant impact on RSCA scores, though there was a non-significant trend towards resiliency in the students.

Group Counseling

Schools often utilize group interventions for counseling and psychosocial interventions with students. There are many reasons that group counseling is often utilized. As mentioned previously, groups allow schools to maximize resources by reaching more students than individual counseling while potentially having equal impact (Baskin, Slaten, Crosby, Pufahl, et al, 2010; Corey, Corey & Corey, 2010; McRoberts, Burlingame & Hoag, 1998). Psycho-educational and counseling groups in schools have also been shown to be an effective intervention in a number of different problem areas (Gerrity & DeLucia-Waack, 2007). In a study of a long term counseling group, Grant and Berkovitz (1999) found that students who remained in the group for an extended period of time had long lasting positive results from the counseling intervention.

Baskin, Slaten and colleagues (2010) completed a meta-analysis of 132 counseling interventions conducted in schools, exploring factors that influenced the effectiveness of counseling and therapy groups. These groups included groups that can be defined as "intervention" groups, where a student is already exhibiting a problematic behavior, as well as "prevention" groups, which are strengths based groups designed to grow adaptive skills. They found that group composition impacted the effectiveness of

the groups in two areas. Counseling groups for adolescents (13 years old and older) were significantly more effective than groups for children (12 years old and under). In addition, groups with an uneven gender balance (65% or more were a one gender) were more effective than more evenly mixed groups, with no difference between predominantly male and predominantly female groups. Facilitators also significantly affected group effectiveness, with groups led by licensed professionals outperforming groups led by paraprofessionals and graduate students.

While counseling groups are generally viewed as an intervention with positive effects, there is a risk, particularly for groups of students with high levels of risk. In some cases, group interventions for at risk students can increase long term negative outcomes (Dishion, McCord & Poulin, 1999). Repeated contact with deviant peers may increase long-term risk, even if no immediate negative outcomes are seen. It is possible that student in groups with other deviant peers can receive positive attention for deviant behaviors from the other members of the group, resulting in increased behaviors or change in cognitions about those negative behavior (Dishion, McCord & Poulin, 1999). Arnold and Hughes (1999) suggest that students in a “pure” groups, with youth who display problematic behaviors, have worse outcomes than students in mixed groups, though Mager and colleagues (2005) suggest that outcomes for deviant youth are worse in mixed groups. For these reasons, those who would facilitate counseling groups for youth with problem behavior should be aware of potential iatrogenic effects. Several potential mediating factors have been suggested, including highly structured evidence-based treatment, an adult facilitator who will keep the students on task, facilitator training, and ongoing progress monitoring (Rhule, 2005; Ceclie & Born, 2009).

The group composition is an especially important variable to consider as one is forming groups (Kenny & Garcia, 2012; Grant and Berkovitz, 1999). The effect of the members of the group on each other is a factor that must be considered when forming and evaluating groups. The Actor-Partner Interdependence Model (Kashy & Kenny, 2000) is a method of analysis, treating the characteristics of other participants in a group as an individual variable. This analysis can be completed using dyads, by examining the interaction between individual variables, or by aggregating the characteristics of the other members of a group to create a unique "partner" score for each group participant. One study (Kivlighan, Kivlighan & Cole, 2012) examined patterns of attendance in a personal growth group for college students. Not surprisingly, the number of previous absences was positively correlated with the probability that the next group session would be missed. After controlling for an individual group member's attendance, the aggregated absences of the rest of the group members significantly predicted at member's attendance at the next group. If the group on average had poor attendance, it was less likely that the individual group member would attend the next session. The study found that the effect was strongest in those with few previous absences, so a highly committed individual will be more impacted, in both the positive and negative direction, by the attendance of the rest of the group.

Behaviors of other group members within the group can also have an influence on an individual's behaviors in the group (Miles, Pauquin & Kivlighan, 2011). In a study of depth of interpersonal interaction and sharing (referred to as "intimate behavior") among one personal growth group and one trauma recovery group, the authors found that a person's behavior can be predicted by past behavior, but also that the level of sharing

among the rest of the group establishes a group norm that also affects behavior. This study found that consistency of the group climate was a significant predictor of a member's intimate behavior. Specifically, when there is not established group norm of personal sharing, there was a negative correlation between the amount of sharing among other groups and the willingness for individual group members to share. When there was high or moderate consistency of sharing within the group, there was no significant correlation between the behaviors of the other group members and the sharing of an individual.

In addition to attendance and behavior, the outcomes sought by the group intervention can be impacted by the members of the group. In a study of trauma recovery group, Pauquin and colleagues (2013) found that the group aggregate PTSD pretreatment score was positively associated with individual outcomes, so the more symptomatic the group members were at the beginning of the group, the larger the improvement on the individual scores. The study also found that other members' improvement was negatively related to an individual's improvement, net of the other effects, though a follow-up to this study found that aggregated post-treatment scores of the group members were not related to an individual's post-group score (Paquin, Kivlighan and Drogosz , 2014)..

Given these findings, group composition and group interactions are an important variable for schools to consider as they are attempting to promote resiliency. Development of intervention groups to improve a student's resiliency must determine whether group effects impact an individual student's change in resiliency. To that end, the present study examined a variety of groups to determine how individuals are impacted by the other members of the group.

Chapter 3: Methods

Quantitative Study

The quantitative portion of this study addresses the first research question: To what degree does the resiliency of other participants in the group impact a student's growth in resiliency?

Sample

The participants in this study were students in an alternative high school located in an urban school district. The quantitative part of the study used a sample of data collected during the 2012-2013 school year. During that year, the school reached a peak enrollment of 306 students during September 2012. The enrollment number remained above 300 until November 2012, after which, students were taken off of the enrollment roll. At the end of the year, in June 2013 enrollment was 255, representing a net decrease of 51 (16.7%) students, though it is likely that the number of students exiting the school is larger, as several students transferred into the school during the year. The exact cause of the drop in enrollment for each student is uncertain, though potential reasons for disenrollment include transfers to other school or educational programs, expulsions, and dropping out of school.

The school enrolled students from 9th through 12th grades, almost all of whom are African-American. During the academic year, students in the school were assigned to various group counseling interventions depending on grade level, occurring once per week during an advisory period. To evaluate the effectiveness of the group intervention, the school collected data on student resiliency using the Resiliency Scales for Children and Adolescents. Students were given the survey measures in September 2012 to serve as

a pre-test measure. Scales were administered in the groups by school counselors and counseling interns, who were also the group facilitators. For students who were absent or did not complete the surveys on the first administration, counseling interns attempted to locate the students individually in their classes to administer the surveys individually. The survey administration was repeated at the end of the school year, using a similar procedure to the first administration.

Despite data collection efforts by the school staff, many students only had data for a single time-point. Students who had significant attendance problems, were suspended, or refused to complete the measure would not likely have data at one of the collection times. Additionally, if a student withdrew from school, they would not have data at the Spring administration. Similarly, many students only completed the post-test measure due to attendance or late enrollment. Either Fall or Spring data were collected from a total of 256 students. During the Fall collection, data was collected from 234 students, while 210 students completed surveys during the Spring data collection period. In total, 188 students participated in the groups and completed both pre and post-test measures. Of those students who did not complete both administrations, 26 students were still enrolled at the end of the school year and did not complete a scale in the Spring, while 16 students were enrolled in the Fall but did not complete a scale. For a further 13 students, data regarding attendance could not be obtained, so these students were excluded from the main analysis. This resulted in 175 students clustered into 20 groups, though one group only contained 4 students. This final group was excluded due to the statistical techniques being used. Summary statistics for the full sample and excluded students ate included in

Appendix A. Those excluded from the sample had no significant differences in their fall or spring resiliency scores, compared to those students who were included in the analysis.

The final sample for the main analysis included 171 students, or 70% of the students who were enrolled at the end of the school year and 56% of the students enrolled during the year. These students include 34 ninth grade students, 40 students in tenth grade, 56 students in the eleventh grade and 41 students in twelfth grade. These students ranged in age from 14 years old to 19 years old, as of the spring of 2013. All students in the school were assigned by grade to a daily non-academic class where teachers worked with students on topics such as college applications, completing a resume, and applying for a job. Counseling groups occurred once per week during this class period. In the final analysis, there were 19 groups ranging from 5 to 20 students with valid data, with a mean size of 9 students. These numbers account for only the students who had valid data in both the Fall and Spring. Actual group sizes could not be obtained for this analysis, so actual group sizes are unknown. While the counseling groups only occurred one day per week, the same groups of students were together for a class the remaining four school days.

Group Intervention

The 9th and 11th grade students participated in the School Connect curriculum, a manualized group designed to increase school connectedness and improve interpersonal relationships. The 40-lesson curriculum is designed to develop socio-emotional learning in high school students, particularly in students who are in their freshman year. The curriculum contains four modules of 10 lessons each, addressing the learning environment (Module 1), building self-awareness and self-management (Module 2),

developing academic strengths (Module 3), and teaching conflict resolution and decision making (Module 4). In a pilot study of this program, the program developers implemented the program in three public high schools, finding that the program was well received by students and teachers and most effectively implemented when the sessions are held more frequently, in daily class sessions (School Connect, n.d.). In a study of program effectiveness (Corrigan, Gove, & Douglass, 2014), researchers found that high implementation of the School Connect program had positive impacts on measures of school climate and educational attitudes. In this current study, the groups were facilitated by school counselors and counseling interns during the weekly group time.

Tenth grade students in the sample participated in the Teen Outreach program, a curriculum that is designed to reduce teen pregnancy and to promote positive decision making. Research indicates that the program is effective in reducing pregnancy rates among high school students, particularly among students who have the highest risk (Gavin, Catalano, et al, 2010; Allen & Philliber, 2001) The curriculum was implemented by facilitators from an external agency, so the counselors at the school were not assigned to any of these groups.

Students in 12th grade were participating in the On Course curriculum, college preparation curriculum intended for first-year college students (Downing, 2008). The program's aims are to improve student skills and beliefs in several areas, including self-motivation, emotional intelligence, interdependence, and attitudes toward learning. While the program was designed for students who are entering college, the lessons were adapted by the facilitators to meet the needs of students who are graduating from high school. These groups were also facilitated by counselors and counseling interns. These senior

groups were also unique among the groups in that the four groups were single sex. While the students' classes were mixed sex, the classes were recombined so that the On Course groups were separated by sex.

Measures

Resiliency Scale For Children and Adolescents

The primary variable of interest was student resiliency. Student growth in resiliency was measured using the Resiliency Scales for Children and Adolescents (RSCA) (Prince-Embury, 2007). The measure provides three scale scores, normed based by age bands, with T-scores (mean = 50; s.d. = 10) calculated based on age groupings of students who were 12-14 years old and 15-18 years old. In this sample, all students were in the same age grouping in the Spring as they were in the Fall. Though the scale also provides aggregated index scores, for the purposes of this study the three scales are used as the measure for analysis, scored based on the Total Sample (i.e., mixed gender) norms. The Sense of Mastery scale is composed of 20 Likert-type items, ranging from 0 (Never) to 4 (Almost Always). The alpha reliabilities for the Sense of Mastery scale increased with the age of the student, ranging from 0.89 (12-14 years old) to 0.95 (15-18 years old). The Sense of Relatedness scale contains 26 Likert-type items. Alpha reliabilities for this scale ranged from 0.91 to 0.95. The Emotional Reactivity Scale contains 20 Likert-type items. Alpha reliabilities for this scale range from 0.91 to 0.94. Reported test-retest reliabilities for children from 9-14 years old were moderate to high, (0.79 for Sense of Mastery, 0.84 for Sense of Relatedness, 0.88 for Emotional Reactivity), based on a mean testing interval of 12 days. Similarly high reliabilities were found for the 15-18 year old age group (0.86 for Sense of Mastery, 0.86 for Sense of Relatedness, 0.88 for Emotional

Reactivity), based on a mean testing interval of eight days. Validation studies of the RSCA indicate that Sense of Mastery and Sense of Relatedness scores are positively correlated with the self-concept measure from the Beck Youth Inventory, Second Edition, and negatively correlated with the scales measuring negative affect, while the Emotional Reactivity scores are correlated in the opposite direction. This same pattern of relationships was found between the RSCA scales and scores from the Piers-Harris Children's Self Concept Scale, Second Edition (Prince-Embury, 2007). In examinations of scores from clinical samples, the expected pattern of scores (low Sense of Mastery and Sense of Relatedness; high Emotional Reactivity) was observed in samples of children with ADHD, anxiety disorder, bipolar disorder, and conduct disorder, providing further evidence of the validity of the scale. Though the scale also provides aggregated index scores, for the purposes of this study the three scales are used as the measure for analysis.

Student Attendance

Attendance of the students during the group period was also included as a predictor variable. The student's attendance in the group may play a role in the effectiveness of the group for that student. Since the groups were not conducted on the same day every week, but were spread throughout the week, and since group attendance records are unavailable, it is not possible at this point to determine the attendance in the actual group. Instead, the attendance variable includes the number of absences through the 2012-13 school year for the period when the group was conducted. Though this number includes mostly non-group days, it is an estimate for how often a student attended the counseling groups. Aggregated attendance of the other group members was entered as a separate predictor variable in the model.

Statistical Model

The analysis was conducted using a hierarchical lineal model. This analysis method is a multi-level regression model, accounting for the fact that students are nested within groups and are not independent. Though the RSCA provides composite scores for a student's Vulnerability and Resource, this analysis separately examines each of the three index scores (Sense of Mastery, Sense of Relatedness, and Emotional Reactivity), which means that this model was run three separate times. The primary research question in this analysis was regarding a student's change in the index score (Spring score – Fall score). On the Sense of Mastery and Sense of Relatedness scales, higher scores are more desirable, so a positive change score represents an improvement in a student's self-perception. Emotional reactivity is coded in the opposite direction, so a negative change score is more desirable.

The hierarchical linear model for each index score was conducted in a series of steps. Statistical significant in all models is calculated using non-robust standard errors. The first model is the unconditional model, used to determine how much of the variability in scores lies between groups. This two-level model does not contain any of the predictor variables, and is represented by the equations:

$$Y_{ij}=\beta_{0j}+r_{ij} \quad (1)$$

$$\beta_{0j}=\gamma_{00}+u_{0j} \quad (2)$$

where Y_{ij} is the change in the student's scale score on each RSCA scale. If the level-2 equation error term (u_{0j}) is significantly greater than zero, it indicates a significant amount of between group variability.

The second model analyses the effects of the student variables on the outcome. This contains only first-level predictors, as represented by the equations:

$$Y_{ij} = \beta_{0j} + \beta_{1j}\text{AggFallSenseofMas} + \beta_{2j}\text{AggFallSenseofRel} + \beta_{3j}\text{AggFallEmotReac} + \beta_{4j}\text{StdAtten} + + r_{ij} \quad (3)$$

$$\beta_{0j} = \gamma_{00} + u_{0j} \quad (4)$$

$$\beta_{1j} = \gamma_{00} \quad (5)$$

$$\beta_{2j} = \gamma_{00} \quad (6)$$

Note in equations (5) and (6) that the slopes for the level-one predictors are remain fixed, assuming homogeneity of slopes across groups. This was done due to a statistical anomaly in the analysis, where additional variables added to the mixed model resulted in between-group variance that increased to a significant level, rather than decreased as would be expected. The reason for this increase is unclear, but when the simpler model is used, with fewer predictors and with fixed slopes, the increase was minimal or nonexistent.

The first set of predictors in the equation is the aggregated resiliency index scores of the other group members at the Fall administration. This helps measure group composition, measuring the impact of the starting qualities of the group on the change in an individual student's resiliency. In the first step of the equation, the aggregated scores for all three resiliency scale index was added into the model. Based on the work by Paquin, Kivlighan and Drogosz (2013), it is hypothesized that the aggregated resiliency scores of the other students in the group will be positively correlated with improvements in resiliency. "StdAtten" is the attendance of the individual student on group days. This is included to account for the student's exposure to the group environment and curriculum. Since attendance on the day of group is unavailable, attendance in the period where the

groups were held will be used as a substitute for treatment exposure. The expectation is that attendance will be positively correlated with change in resiliency.

As a follow-up analysis, a second set of equations was be modeled using the aggregated change in the resiliency of the other members of the group and "AggPtAtten", the aggregated attendance of the remainder of the members of the group. These analyses, if significant would indicate that group processes after the initiation of the group impact an individual's progress. Both of these sets of variables reflect group behavior that could not be measured at the starting point, instead giving an indication of how the group changed through the year. For this analysis, individual change scores and aggregated partner change scores on each individual scale are not independent (e.g., an individual's change in sense of mastery is related to aggregate partner sense of mastery). For this reason, when modeling an individual's resiliency change score, partner change scores for that index were not included in the analysis. An example of the one of the level-one equations is given in equation 7, where "ChEmotReact" is an individual's change in Emotional Reactivity:

$$\text{ChEmotReact} = \beta_{0j} + \beta_{1j}\text{AggChSense of Mas} + \beta_{2j}\text{AggChSenseofRel} + \beta_{3j}\text{ AggPtAtten}, \quad r_{ij} \qquad (7)$$

Interview Study

To explore the second research question, interviews were completed with students who participated in the groups, and with counselors who were involved in the groups, either as group facilitators or as supervisors for group facilitators. To develop a pool of students, the school was contacted to request access to students who were current students and who were in the school in the year that the groups were conducted. Per the request of the school, the pool of potential students was limited to those current students

who were over the age of 18 at the time of this study (but not, necessarily, when the groups occurred). This resulted in a potential pool of 20 students. Of these 20 students, 10 students agreed to participate in the interviews. Interviews were conducted at the school and lasted between 15 and 20 minutes each (See Appendix F for a list of interview questions). To solicit interviews from counselors, the counselors were contacted directly to request interview. Of the nine current and former staff members who were contacted, four volunteered for the interview. The interviews ranged in time between 30 minutes to one hour (See Appendix G for a list of interview questions). Interviews with both counselors and students were audio recorded and coded for significant themes in four general categories: (a) Factors that facilitated the effectiveness of groups, (b) Factors limiting the effectiveness of groups, (c) The impact of groups on student resiliency, (d) What the school can do to improve student resiliency.

Study Implications

This research will provide insight into effective group counseling in the schools. Many schools have classroom guidance programs or conduct group counseling. This study will hopefully add to the body of knowledge regarding effective group counseling programs. The quantitative component will extend the current body of knowledge regarding student resiliency, while the evaluative portion of the qualitative program will provide information regarding aspects of counseling groups that the participants felt were most effective. These two aspects can be used in the planning and implementation of group counseling.

Chapter 4: Results

Quantitative Analysis Results

Results from the Fall and Spring administrations of the RSCA are reported in Tables 1 and 2 below. Index scores are normed by the scale publisher as T-scores, which would result in an expected mean score of 50 and standard deviation of 10. Alpha reliabilities for Sense of Mastery (Fall: 0.92; Spring 0.91), Sense of Relatedness (Fall: 0.92; Spring: 0.91), and Emotional Reactivity (Fall: 0.93; Spring 0.92) were high and were consistent with reliabilities from the normative sample. In the aggregate, Fall and Spring Sense of Mastery scores were within the Average range reported by the RSCA manual (T-scores between 45 and 54. The Fall Emotional Reactivity was in the Above Average range (55-59), though by Spring, the scores were in the Average range. The Sense of Relatedness scores were in the Below Average range. The profile of scores is similar, though not identical, to the high vulnerability youth identified by Prince-Embury and Steer (2011).

Table 1
Fall Resiliency Index Scores

		Sense of Mastery		Sense of Relatedness		Emotional Reactivity	
Grade	N	Mean	SD	Mean	SD	Mean	SD
9	34	45.21	9.94	40.94	9.78	55.62	11.88
10	40	49.68	10.03	44.93	9.16	51.13	10.84
11	56	49.75	9.36	45.66	8.90	55.98	11.84
12	41	46.46	7.89	42.95	10.22	56.37	11.78
Total	171	48.04	9.44	43.90	9.55	54.87	11.69

Table 2

Spring Resiliency Index Scores

		Sense of Mastery		Sense of Relatedness		Emotional Reactivity	
Grade	N	Mean	SD	Mean	SD	Mean	SD
9	34	46.06	7.94	41.12	6.94	52.26	10.23
10	40	48.95	10.45	44.50	8.32	50.68	8.07
11	56	48.80	9.14	45.25	8.74	53.77	11.81
12	41	46.98	8.01	43.20	11.59	55.10	10.51
Total	171	47.85	9.08	43.76	9.16	53.06	10.44

Results from one-sample *t*-tests (Appendix B), comparing observed results to the expected score (the mean score from the normative sample), reveals that scores are significantly different from the expected score for all three index scores in both the Fall and Spring administrations. The MAS and REL scores are significantly below expectations, while REA scores are significantly higher than the expected mean. In both administrations, Sense of Relatedness had the largest deviation from the expected mean, with mean scores six points lower than the norming sample in the Fall and Spring.

The primary variable of interest in the quantitative portion of this study is the change in resiliency calculated by subtracting the Fall index score from the Spring score. The three change scores were analyzed using one-sample *t*-tests to determine if any of the mean change scores differ significantly from zero (See Table 3). In this analysis, only Emotional Reactivity had a significant change between Fall and Spring, with an average decrease of 1.81. This indicates that, on average, Emotional Reactivity improved over the course of the school year, while Sense of Mastery and Sense of Relatedness did not change significantly.

Table 3

One Sample T-Test of Change in Resiliency Scores

Outcome	Mean	SD	n	Comparison Value	t	Sig.
Change In Sense of Mastery	-.19	9.14	171	0	-.268	.789
Change In Sense of Relatedness	-.14	8.97	171	0	-.205	.838
Change In Emotional Reactivity	-1.80	9.21	171	0	-2.558	.011

Two separate one-way ANOVAs were conducted to determine if there were differences in resiliency scores by grade level (Appendix C). No significant differences were found in the Fall or Spring Resiliency Scores on any of the resiliency scales. Additionally, there was no difference in the change in resiliency scores by grade, as determined by a one-way ANOVA of the difference scores (Appendix D). Group intervention type also had no significant impact on the change in resiliency scores, as measured by another one-way ANOVA (Appendix E). Although one of the programs (i.e., School Connect) was presumably targeting factors that would theoretically be measured by the RSCA, students in that group did not improve any more than the students in the other two groups.

Students' resilience scores showed some strong intercorrelations in the expected directions. Among the Fall resiliency scores, Sense of Mastery and Sense of Relatedness showed the strongest correlation (r=0.74), while weaker correlations were found between Emotional Reactivity and both Sense of Mastery (r= -0.13) and Sense of Relatedness (r= -0.13). A similar pattern of correlations was found among the spring scores, with strong correlations found between MAS and REL, and weaker correlations found between REA and the other two resiliency scores. Scores were also correlated between time periods.

Sense of Relatedness and Sense of Mastery were both strongly correlated with their corresponding scale scores between fall and spring, while Fall MAS x Spring REL and Fall REL x Spring MAS correlations were moderately positive. Emotional Reactivity also had a strong positive correlation between Fall and Spring administrations (r=.66). Overall, the test-retest correlations in this sample were lower than the correlations found in the RSCA manual, but the test-retest interval in this study was far longer than the interval of normative sample, which was less than two weeks. This suggests that the index scores have some stability over time, but they have enough variability over time that it can be assumed that an effective intervention can impact scores.

Student attendance is another predictor in the main analysis. The attendance variable was the year-end total absences for the class period that the groups used, which includes the non-group days. Student absences raged from one to 61, with a mean of 21 absences.

Table 4

Correlations among RSCA scales- Fall and Spring Scores

Resiliency Index	Fall MAS	Fall RELT	Fall REA	Spring MAS	Spring REL	Spring REA
Fall Sense of Mastery	1					
Fall Sense of Relatedness	.74**	1				
Fall Emotional Reactivity	-.13	-.13	1			
Spring Sense of Mastery	.50**	.40**	-.22**	1		
Spring Sense of Relatedness	.41**	.54**	-.25**	.66**	1	
Spring Emotional Reactivity	-.15	-.18*	.66**	-.25**	-.36**	1

* = p<0.05 ** = p<0.01 *** = p<0.001

A key component of the statistical analysis is the aggregated resiliency scores for the other members of the counseling groups, or the "partner" score. Since the groups were not assigned by any apparent factors other than grade, and there are no shared characteristics between members, it is assumed that the fall resiliency scores are independent. Analyses confirm that the aggregated partner resiliency scores are correlated among each other in the direction and magnitude similar to individual resiliency scores, but there is no correlation between an individual student's scores and aggregated partner scores.

Table 5

Correlations Between Fall Index Scores and Aggregated Partner Scores

	MAS	REL	REA
Aggregated Partner Sense of Mastery	.045	.013	. 024
Aggregated Partner Sense of Relatedness	.045	-.010	.019
Aggregated Partner Emotional Reactivity	.046	.037	-.059

Note. None of the coefficients is significant at .05 level

To answer the first research question regarding the impact of partner levels of initial resiliency and the student's attendance on the student's change in resiliency, three separate hierarchical linear equations were completed, one for each resiliency index score.

The first analysis was for change in Sense of Mastery. The first equation, the unconditional model, revealed no significant differences s among the groups (ICC=0.0005), suggesting that groups did not differ significantly from each other. Results from the model that included the predictors (see Table 6) reveal that the three aggregated resiliency scores did not significantly predict change in sense of mastery, indicating that

aggregated attributes of the other members of the group at the start of the school year did not significantly relate to the change over time of a student's sense of mastery. Additionally, attendance, the proxy variable for treatment exposure, was unrelated to improvement in this area.

For change in Sense of Relatedness, the unconditional model again revealed no significant between group variance (ICC=0.0004). Aggregated partner Fall resiliency scores (see Table 6) did not predict change in scores from Fall to Spring. This suggests that group composition at the beginning of the group experience is not related to change in a student's resiliency score. These results mirrored the results for the change in Sense of Mastery, where neither group attributes nor student attendance predicted change in the resiliency index.

The final analysis was on the change in Emotional Reactivity, which was the only resiliency change score which differed significantly from zero. There was no significant between group variance in the unconditional model (ICC=0.0004). Once again, the first level, containing the starting aggregated resiliency scores of the other group members and student attendance, did not significantly predict the change in a student's Emotional Reactivity (see Table 6).

These three analyses reveal that group composition at the beginning of the semester, specifically the aggregated resiliency scores of the other members of the group, had no impact on a student's resiliency.

Table 6

Level 1 Model- Partner Aggregated Fall Scores

	Change in Sense of Mastery		Change in Sense of Relatedness		Change in Emotional Reactivity	
	Coeff.	S. E.	Coeff.	S.E.	Coeff.	S.E.
Intercept	-0.18	0.88	-0.14	0.70	-1.80	0.61
Attendance	0.04	0.06	0.00	0.06	0.03	0.06
Partner Sense of Mastery (Fall)	0.53	0.42	-0.04	0.35	0.21	0.35
Partner Sense of Relatedness (Fall)	-0.19	0.42	0.08	0.35	-0.31	0.36
Partner Emotional Reactivity (Fall)	-0.08	0.20	-0.06	0.17	0.07	0.17

Note. None of the coefficients is significant at .05 level

In the follow-up analysis the student resiliency was analyzed with aggregated partner change in resiliency as a level 1 predictor, along with aggregated partner attendance. Results are displayed in Table 7.

Table 7

Level 1 Model- Partner Aggregated Change Scores

	Change in Sense of Mastery		Change in Sense of Relatedness		Change in Emotional Reactivity	
	Coeff.	S. E.	Coeff.	S.E.	Coeff.	S.E.
Intercept	0.21	2.90	-0.14	0.68	-1.80	0.70
Partner Attendance	-0.14	0.35	0.01	0.17	0.10	0.18
Partner Change in Sense of Mastery (Fall)	-	-	-0.17	0.23	-0.39	0.29
Partner Change in Sense of Relatedness (Fall)	-3.44***	0.49	-	-	0.70*	0.30
Partner Change in Emotional Reactivity (Fall)	0.28	0.48	0.58*	0.25	-	-

Note: * = p<0.05 ** = p<0.01 *** = p<0.001

Results for the Sense of Mastery model contained an unusual increase in between group variance, even with a simple model. The results from that analysis are reported, but may be uninterpretable due to this statistical anomaly. The results show that there is a negative correlation between Change in Sense of Mastery and Partner Change in Sense of Relatedness, suggesting that if a student is in a group in which the other members increased their Sense of Relatedness the student's Sense of Mastery tended to decreased.

Change in Sense of Relatedness and Change in Emotional Reactivity did not share the same statistical anomaly as in the equations for Sense of Mastery. Both equations showed significant correlations, to be interpreted in light of the fact that Emotional Reactivity is constructed in the opposite direction compared to Sense of Mastery and Sense of Relatedness, meaning lower Emotional Reactivity indicates higher resiliency, in contrast with the latter two scales where higher scores are more desirable. For student Change in Sense of Relatedness, there was a positive correlation with Partner Change in Emotional Reactivity. This indicates that if the Emotional Reactivity of the other members of the group increase, the individual student's Sense of Relatedness tends to increase. A similar positive relationship is seen between Change in Emotional Reactivity and Partner Change in Sense of Relatedness, for students participating in groups where the other members are increasing in Sense of Relatedness, the student's Emotional Reactivity increases.

Interview Analysis

Student Interviews

Interviews were completed with 10 students at the school who participated in group counseling during the year that the resiliency scales were administered. The

purpose of the interviews was to obtain the perspective of the group participants about the effectiveness of the groups, the factors that made groups effective, the impact the groups had on the different resiliency dimensions, and what they believe would make an effective group experience.

Table 8
Demographic Information for Interview Participants

Interviewee	Grade	Sex	Counseling Group Type
Student 1	10	M	TOPS
Student 2	11	F	School Connect
Student 3	9	F	School Connect
Student 4	9	M	School Connect
Student 5	11	M	School Connect
Student 6	10	M	TOPS
Student 7	10	F	TOPS
Student 8	11	F	School Connect
Student 9	11	F	School Connect
Student 10	10	M	TOPS

Grade- Student grade level during the 2012-13 school year.

Results indicated that eight out of the ten students believed that the group was a positive experience at least half of the time. Students were asked to give specific examples of effective groups sessions which happened in the 2012-13 school year. Six students remembered either specific or general examples of group topics that they remembered. Of these students, four could recall a specific group experience or topic that was memorable as a positive group experience. Given the length of time between the group experience and the interviews (a year and a half between the end of the final group and the interviews), it is unsurprising that specific examples would be difficult to recall. Most of the students' recollections were more general, regarding the experience of being in group throughout the year, rather than specific groups that were successful or ineffective.

Factors Promoting Positive Groups Experiences

Eight major factors emerged from the interviews (See table 9).

Table 9
Student Interviews- Factors Promoting Group Effectiveness

Variable	Number of students
Opportunity to vent/express feelings	6
Ability to discuss non-school related issues	4
Effective Facilitators	3
Taught Useful Skills	2
Task Variety	2
Opportunity to share experiences with other students	2
Non-judgmental Environment	2

The most frequent response from students was that groups gave students an opportunity for self-expression of their emotions. More than half of the students reported that the groups were an outlet for them to express frustrations and concerns. Many students reflected that they did not have an outlet to express themselves in other areas of their lives. One student stated that:

> *Student 1*: I think what made groups effective was the venting aspect of it, because everyone likes something where you can just vent from time to time about how you feel about a particular thing that may be negatively affecting you or positively affecting you. I think that was the best thing about it. You can just vent about what is going on inside of the school or outside of the school.

Student 3: Stuff that I needed help on, when I couldn't really talk to people, they were there to help me.

Student 9: We were able to speak. Everybody could speak and say their thoughts and nobody judged… If you had personal problems, you were able to come to her (The group leader) during that.

Student 4: Certain people might want to get things off of their chest and they will just let it out in group if it is an interesting topic they want to talk about.

Other students agreed that they often came to school with many concerns on their minds and having group gave them an opportunity to discuss these issues.

Students also said that having an opportunity to share experiences with others was something that they only got in group. Though only two students addressed the opportunities to share about common experiences, several other students made reference to the benefits of the interaction between other students:

Student 4: If I had something in common with the teacher, then the teacher will say "Oh, I had such-and-such, too" and we keep going. If everybody has everything in common, it helps the group get better. Everything flows better.

Student 6: It helped students who were going through the same thing connect and be able to help each other out through their problems

The non-judgmental nature of groups was discussed by two students

> Student 9: If you have any self-esteem problems, like if you thing they you're not pretty or something, they let you know that you are and that you shouldn't let no one judge you. The only person who can judge you is yourself… If you are going through anything, they help you, I guess, get through it so that you won't be stressed out or have low self-esteem.

One student mentioned that having group helped her feel she could share in group.

> *Student 3*: We made rules. Each group was different and we had rules for our group, so whatever was said in the room stayed in the room.

Another commonly stated factor of effective groups was the quality of the facilitator. Most of the students reported that they have had contact individually with the counselor outside of group. Typically, the group facilitator was already known to the students. Several of these students mentioned the group leader as a primary factor in a positive group experience.

> *Student 9*: Our counselors were nice, they understood us and they helped us a lot with the things we probably couldn't get through, they were there to help us to get through it… They understood us, they didn't judge us. They understood what we were going through. They told us the right thing to do and led us in the right direction.

> *Student 7:* I liked the TOPS leader who came. She wasn't afraid to speak her mind. Or if we got too loud or noisy, she wasn't afraid to put her foot down. She was a very outspoken woman.

Students also mentioned the skills that the groups taught students. One student mentioned the practicality of the groups.

> *Student 3*: It helped me get a job… We set goals for ourselves. Some things were hard. One of my goals was getting a job. When I said "getting a job" and she said "Once you get the job, how are you going to keep the job?". It was kind of hard because I never really thought through that… But she was helping me out along the way.

Others saw the interpersonal skills as a primary benefit of groups.

> Student 1: You learn new ways to cope with your problems and you learn how to deal with certain people that you didn't know how to deal with in the past because you talked with your peers and with your counselors. You are like "Wow, that's really helpful. Maybe I can handle this situation with a better attitude than I did last time."

Students generally reported that the groups were effective in teaching the skills that were necessary to improve student resiliency.

Factors Limiting Positive Groups Experiences

Students were also asked about factors that limited group effectiveness. In this category of questions, fewer factors were mentioned, with two students unable to think of any specific barrier. They were also asked about how the factors impacted the group experience.

Table 10
Student Interviews- Factors Limiting Group Effectiveness

Variable	Number of students
Other students were disruptive/unfocused	4
Attendance	3
Too academic/boring	2
Not often enough	1
Unclear purpose	1
Too large	1
Lack of connection among group members	1

The most frequent response was that other students were negatively impacting the group experience. Sometimes this was due to students intentionally disrupting the group.

> *Student 3*: We did have times when the topic we would talk about, people would get really immature and just crack jokes and they won't stop laughing. The topic was probably just a regular topic, but once that one joke was made, everyone is just making jokes and won't get back on topic.

Student 6: Because of who my teacher was, she was a nice person. People were trying to get over on her… She was always calm, never loud, so people tried to dictate to her what they were going to do… It did have an impact, but it didn't, because we had a couple people in the class who were like "No, don't do that." We had leaders in the class.

A connected problem was poor group attendance by the student him/herself. One student admitted that he was frequently late for groups

Student 4: Sometimes I'd get here and there would be five minutes left, so sometimes I really didn't know what they were doing the whole time. That's probably what made group harder for me, was me coming in late… They were probably in the group talking about what they were going to do and then she made them transfer it to paper. That's probably when I got there, when we had to transfer it to paper.

Others made reference to the impact that other students' poor attendance had on group

Student 10: A lot of students in my grade didn't come... It didn't affect us much because we figured it was going to happen anyway.

Some students believed that the groups were not engaging enough. These students felt that experience with the counselor and the academic tasks of school should be distinct.

> *Student 1*: They would try to make us write or do work and most people don't like doing that. They expect more from it. They expect it to be more of a fun thing than something work, since we do that a lot in our main classes… Don't really make it feel like a class. It is kind of an intervention… When it feels like a class, the students don't want to come. They just feel as though it is boring or they are not into it because they expected something completely different.

> *Student 5:* I understand because they had a set agenda because we had to do certain surveys by this time, we had to do certain things like that and I understood that. But it was just boring to me.

Other factors were also mentioned, including the group size and the frequency of the group. Some groups contained between 15 and 20 students and one student stated that this could often be difficult for a single facilitator to manage. One student said that the purpose of group was unclear at the beginning and that it took him a few weeks to begin to understand why he needed to be in group

> *Student 1*: It is just the communication. You have to communicate to us in order to make us want to come to group. You just have to get everybody informed about

> it and give it a real purpose as to why it should be here. Why should we come? Just give it a purpose. I feel as though if they spoke up more about group, it would merit it being here at this school.

Building Resiliency

The students were asked if the groups were effective in improving Sense of Mastery, Sense of Relatedness, and Emotional Reactivity, the three dimensions of resiliency measured by the Resiliency Scales for Children and Adolescents. To reduce the amount of jargon in the interviews, these three outcomes were described, rather than referred to by then name of the index.

Of the ten students who were interviewed, eight of them believed that groups enhanced Sense of Mastery. Half of those students were able to recount personal stories of how the groups helped them grow in this area.

> *Student 6*: Well, it helped me a lot. It showed me that your decisions is what controls your future. If you choose to do something wrong, it is going to be a negative outlook. If you choose to do something right, it is going to be a positive outlook.

Six of the ten students reported that groups were effective in building the Sense of Relatedness of the students. One student believed that this was the primary purpose of groups, and that it was helpful to connect students with their counselors and for counselors to get to know the students

> *Student 1*: When group first started, I was like "What is the point of group? What exactly is group?" and those questions were answered. It was kind of like a thing that counselors did so they could get to know the students more and for students to get to know each other more. We could explore each other's' interests, get to know everyone, stuff like that.

The most common elaboration among the students who responded in the affirmative was that the groups helped students share their experiences with each other, enabling those who have a common experience to connect.

Fewer students believed that groups helped improve Emotional Reactivity. Only three of the ten students viewed groups as helpful in this area. Though some of these students reported that they had improved in this area, the most commonly reported reason for this growth was not because of groups, but because of individual meetings with their counselors. Two of the students who said that group had been helpful referred specifically to strategies that they learned in group to manage their emotions.

Suggestions to Improve Resiliency

Students were asked what the school should do to improve resiliency and encourage success. The question was open ended and allowed for students to comment on suggestions for group counseling, as well as for more general suggestions for the school, though only the responses regarding counseling will be noted here. Specific questions

about structure and topics of group were also asked. Group-focused suggestions will be noted here, while general discussions about improving resiliency will be discussed later.

Table 11
Student Interviews- Suggestions for Counseling Groups

Suggestion	Number of students
Everybody should have group	8
Topical Groups	6
More Counselor Availability Outside of Group	4
Let Students Select Topics	3
Make Group Less Academic	2
Smaller Groups	1
Clarify Purpose	1
Hold group more often	1
Mixed grade level group	1
Single grade level group	1
Offer Practical Help	1

Students were first asked about who should be involved in group. Students at the school during the study year were all involved in a counseling group, but the following year, only groups dealing with particular topics, such as anger management and grief, were available, with a small portion of the school involved in each semester, so some students were not in a group for the entire school year. Students were given this history of groups and asked what students in the school should receive groups and how they would be involved. Eight out of the ten students believed that every student should be in some type of group. Of the remaining students, one said that students should self-select into groups, while another said that the topical groups should be available to students who need them on and students should be invited to participate. Everybody agreed that some

kind of group counseling was important and should be available. Among the eight students who favored universal groups, the dominant model that was suggested was that a standard group should be operating for everybody, but topical groups were also important and should be made available for those students who needed them.

> *Student 6*: Everybody needs to have groups, but different topics can really be helpful with things that are going on in the world not. Like, grief and loss would be a great topic for now, with what is going on.

> *Student 5*: Different people could have different needs. Anger management might help some people. Loss and grief might help some people… People who don't need that much attention, they could just be in regular groups.

Two suggestions about the content reflected a desire for more student input into the group topic. Several students suggested that the choice of topic should be in the hands of the participants, reflecting the idea that students are able to connect more with topics that they view as relevant.

> *Student 8*: We all should take a survey to see which group we want to be placed in. That plays a part in if people participate, because what they aren't interesting or are something they don't want to talk about?

The students also wanted the setting to be non-academic, again reflecting a desire for an environment where students have more control over the task and the discussion. Practical group topics were a frequent suggestion among these students.

Students also valued the connection that they were able to make with the counselor in the groups, but had a desire to have more access to the counselor outside of the group. Students suggested weekly check-ins on an individual basis or streamlining the access to the counselor so that the connection could be maintained.

> *Student 2*: *[In response to a question about how the school can help build resiliency]* Have someone check up on them every week or every two weeks to make sure they are doing what they are supposed do. If they can have that system of support… I know if I had that type of support, I would not be where I am right now.

> *Student 6:* I think making counselors more available now would be helpful. I remember when I first started to go her being able to go to my counselor and I didn't have to go through all I have to go through now to get to my counselor. I've got to go through this getting passes, trying to figure out how to find my counselor. It's just a lot.

Counselor Interviews

Interviews were completed with four current and former members of the counseling staff who were involved in facilitating or supervision the groups. The purpose of these

interviews was to evaluate the appropriateness of the curriculum, treatment fidelity, factors impacting the effectiveness of group, and suggestions for a more effective group and school experience. The number of interviews does not lend itself to a tallying of common themes, so results will be reported regarding common responses and then each interview will be discussed in more depth.

Common Themes

All counselors agreed that groups were generally effective. While there were barriers to group effectiveness, there was general consensus that groups generally had positive outcomes and in each group, they were able to accomplish the goals of the group session. All counselors also agreed that group was a high need in the school and should be a high priority, with three of them advocating for groups available for the entire student population. As with the student interviews, the most commonly suggested model was for universal groups, with targeted groups for particular students.

These counselors were facilitating either School Connect or On Course groups. Regarding the curriculum, three out of the four counselors thought that the curriculum provided good guidance, but different degrees of modification were necessary. For some students the modification was relatively minor. In other cases, the general topic was drawn from the group curriculum, but the prescribed activities from the curriculum did not lend themselves to keeping the students engaged, given the unique needs of the population in the school. Some of the activities involved writing and scripted lessons, so efforts were made to create more interaction.

Counselor 1: We had to make modifications. The kids like hands-on activities and things that were tangible. There were a lot of worksheets in the curriculum that we used. I used that curriculum just to have a guiding topic for the week, but also had to go online and look for activities or think of things that were connected with that topic. And then some type of activity where the kids could get up and use their hands. I definitely had to make modifications.

The fourth counselor also gave input regarding the fitness of the curriculum for the intended purposes, stating that the concepts were good but did not have a trauma focus, which was needed for the students at the school. Three of the counselors advocated for more student choice in the topics that would be discussed through the semester.

The counselors made mention of the Pillars of Social and Emotional Learning that the school uses as the guiding principle for the group intervention. These five competencies (Self-Awareness, Self-Management, Social Awareness, Relationship Skills, and Responsible Decision Making), as laid out by the Collaborative for Academic, Social, and Emotional Learning (CASEL, 2015), were mentioned in reference to the goals of the group counseling program. These pillars were emphasized by the counseling staff as the desired outcome of the group counseling experience, but, as one interviewer reported, were not widely known by students and other staff members within the school.

Counselor 4: I don’t think we have been doing a good enough job with nomenclature… Really getting people to be able to identify what the SEL pillars

are… I think we can do a better job of letting teachers and staff know the work that we do.

Another common theme among the interview was that inconsistency of group was a limiting factor in the overall effectiveness. Three counselors reported that inconsistency in the groups taking place, due to holidays, school events or a crisis that pulls the counselor away from the group. The three counselors emphasized the importance of keeping the groups predictably and consistently held. For example, two mentioned that Monday groups were generally less effective due to school holidays that led to cancelled groups. Additionally, the period that group was held was also commonly a time for grade level assembly, since it was a non-academic block in the schedule. When these grade level meetings occurred, groups were cancelled. Two of the counselors called for groups to be "protected time", placed in the schedule and held, along with other non-academic time blocks, with equal weight as the academic skills:

*Counselor 1:*I know for group it is built in, somewhat, but if there was a period that was specifically for group, just like all the other core classes, especially with our population, I think it would work out a little better. The school would treat it as something that is mandatory.

Counselor 4: Because it is a school setting, you always have to operate within the school system. So if there were competing demands for, let's say, a town hall meeting, or other school functions… Sometimes, every group didn't have the

> same number of sessions… Sometimes you had to fight for space on the calendar… It's just as important as a content class, because you can't access math, science, and history if you are not in that place emotionally.

The argument made for this was that the non-academic skills that were taught in group encouraged and improved the ability of the students to access the curriculum. Two of the counselors also made reference to the other duties preventing them from facilitating the group. For example, counselors were frequently involved in conducting mediations between students, so it an emergency arose, the group would not take place.

Further evaluative detail from the counselor interviews will be discussed individually.

Counselor 1 (School Connect Group Leader)

The first counselor interviewed held many of the consensus views that were described previously. This counselor saw the groups as generally effective, particularly when they were able to be held consistently. When groups were inconsistent or postponed, the students who generally did not enjoy group would disengage resulting in poor attendance or the students being disruptive while they were there. Since these students were typically the ones who would benefit most from a consistent group, inconsistently held groups tended to impact them the most.

> *Counselor 1:* There were a few challenges that messed with the flow of group being consistent, which was one of the things that I think did not work well with group… Some of them, when they found out there wasn't a group, the next week

> they wouldn't go. Then you have the handful of students that participate in group who enjoy it... It was a mix between the kids who enjoyed group and the kids who had no interest at all. The kids who had no interest, they didn't really care, so the following week when we were to have group, they didn't show up.
>
> I wasn't able to have full participation from everybody that should have been there, Most of the time those kids that were not into group were disruptive when they were in group, so it flowed a little smoother, but then those are the ones who, most of the time, need to be in group and need to get the lesson that is being taught.

This counselor also made modifications to the curriculum as it was written. The curriculum used in the group was heavily based on worksheets and in-seat activities, so the task was modified to create more hands-on activities. When the curriculum was followed as written, students would either complain or lose focus on the task.

This counselor put an emphasis on the non-academic skills that the students needed, stating that social and emotional learning is important, as are classes focusing on post-secondary skill and life skills.

Counselor 2 (On Course Group Leader)

The second counselor had an overall positive view of the group experience. This counselor stated that the group was small and the maturity of the group members enabled serious discussions, without some of the distractions that some of the larger, younger groups were grappling with. These students held each other accountable and the content,

which was focused around goal setting and discussing the next steps after high school, was engaging enough that the group members remained interested.

> *Counselor 2:* With the seniors, it was a small group size and they were all senior[s]... It was easy for them to meet the expectations because there where were no competing interests. They held each other accountable and it was easy for them to hold each other accountable… Not only were they seniors, but it was a single sex group. It was the first time that we did that and I don't think that it has been done since. And that really made it effective.

While the content was engaging for the students, the counselor stated that several modifications were made to the curriculum. In particular, this counselor attempted to draw in examples from recent news, current events, and culture to bring relevance to the group and to build a connection with the students. The primary suggestion made by the counselor was to give students more input in the selection of the group topic. This suggestion was to spend the first two group sessions building rapport with students, establish group norm, and then collaborate with the students to decide the purpose of the groups and to select topics.

> *Counselor 2:* I think having the students participate in the sorting of the curriculum, like which topics that they would like to discuss. Give students some say in the topics beforehand so you can roll it out… The group facilitator can then construct a group curriculum based on the topics or subjects that the students want

> to participate in, versus the facilitator coming up with this curriculum and then trying to roll it out to the students and the students not having any buy-in or any vested interest in the subject that is being presented to them.

With students involved in the selection of the topic, they have more invested in the groups, which would result in more engagement with the content and a more effective group experience. Students would also have the opportunity to facilitate the groups, with the counselor guiding and maintaining the order of the group.

This counselor believed that the environment created by the group facilitator played a vital role in a student's progress within that group. Sense of Relatedness and Emotional Reactivity were impacted by the group to the extent that group expectations are clear, norms are modeled by a skilled facilitator, and behaviors are reinforced. The counselor also believed that groups impacted sense of mastery in a unique way, particularly for at-risk students. The students appreciated having a forum where their views are respected and where they can learn to respect the views of others. In an academic environment, students who are below grade level rarely feel success. In group, those students who lack academic confidence can develop confidence in other ways.

> *Counselor 2:* Once the stage is set and students are vested in the group, I think it has tremendous benefits to students who participate in there. For those students who are a little bit apprehensive initially, once the groups are held consistently, you see them sharing their perspective and appreciating the opportunity to have a forum where their perspectives can be heard and respected. I think that can help to

foster self-confidence and can reinforce a lot of positive feedback that students may not normally get in other areas at school… In group there is no wrong answer, you are just sharing your perspective, whereas in the classroom, there is the right answer and the wrong answer… Those students who lack some academic confident, the group actually gives them an opportunity to gain confidence in other areas

Counselor 3 (School Connect Group Leader)

The third counselor believed that groups were generally effective, thought it was difficult to truly evaluate groups, given some of the challenges. These challenges, such as inconsistency in the groups taking place and not having enough planning time to prepare materials, often hindered the impact of the group, so the groups were often not as effective as they could have been. Engaged students would grasp the material and would participate, but it was not easy to determine if the groups had long term impact.

Counselor 3: It is hard to say. Sometimes the group would not happen as consistency as you would have liked. Sometimes there were other things that would break up the schedule and make it hard to deliver. There are holidays and some classes didn't get Future Focus for three weeks in a row. A lot of the kids are absent and sometimes they wouldn't even show up to future focus, so attendance was an issue too… It is hard to say how effective it was because some of the kids didn't get it as consistently as they would have needed to in order to get some of the positive benefits of School Connect.

There were also a variety of within group factors that would be a barrier to effective group experiences. Disruptive or late students would halt the group process, generally by interrupting the discussion or by interjecting topics that were unrelated, which would cause other students to leave the group conversation. There were also interruptions by teachers whose classroom the group was using.

> *Counselor 3*: That was always a distraction or a disruption, whenever somebody would come in or a teacher would come in and not really leave. I know that was another one, in terms of barriers. When we would try to get teachers to leave so we could have more confidential conversations and sometimes they wouldn't leave or they would come in and out, so you had to wait for them to get what they needed so they could leave. That was definitely frustrating and it breaks the flow that you had.

For the core group of students who would attend every week, the groups were an effective means to build resiliency. The counselor stated that groups had the most positive impact on students' Sense of Relatedness. They were able to practice conversation skills and shared ideas with students who may have had similar beliefs. They also got an opportunity to listen to people who had a difference of opinion. Practicing these skills connected the students with each other. The counselor thought that the groups had some effect on Sense of Mastery, but was unsure if Emotional Reactivity was affected, stating that the skill were taught in group, but students learned application in individual sessions.

The curriculum was also a point of concern for this counselor. The lessons were scripted and not targeted at the population at the school. The curriculum provided the basic ideas for the group, but variations were necessary to make the content more relevant and to make the activities more engaging. The students would often come to group with a desire to talk about something different and more pressing in their lives, and the group occasionally departed from the curriculum to have a substantive discussion about the issue.

> Counselor 3: Part of that was me not feeling confident in how to implement and make the conversations from School Connect feel genuine. But when kids came in with something they was going on, or something they were worried about, or something they were excited about, that felt genuine. It felt natural and it didn't really feel mechanical and formulaic like the School Connect curriculum did sometimes. Or it felt like you would say this for this many minutes and it felt like I was teaching a lesson and I think I was going into the groups thinking that this is a group and it is giving kids time to talk about whatever is on their minds.

This counselor was the only one who suggested that the groups would be better if students chose to opt-in. Students were often unclear about why they were in a counseling group and if the students selected to be in targeted groups, the purpose would be clear. Another suggestion was to hold groups at after school, rather than during the school day. The counselor made the point that some topics could trigger a student's

emotions and, rather than having the student go to class upset, groups at the end of the day would give more flexibility to discuss difficult topics.

Counselor 4 (Supervisor)

The final interviewee was not a group facilitator but worked with the facilitators to help with effective delivery of the group counseling program. As such, the discussion centered on more general topics, like the goals and challenges of the groups overall. This counselor believed that all three of the counseling curricula were well aligned with the needs of the students, though did not match the needs totally. Again, the challenge came due to the unique population of students at the school and the high level of trauma that many of the students have experienced. The lesson plans were helpful for those with differing levels of experience to be able to facilitate effectively, but an ideal curriculum would be able to meet the needs of the students while still being evidence based.

Among the challenges of the groups, the counselor agreed with the previous interviewees by saying that the inconsistency hindered the groups from realizing peak impact. Often times, groups would have to compete for space on the calendar with other events and administration did not always see the value of groups. As a result, not every group had the same number of sessions, which let to inconsistent results. A better format, according to the counselor would be to reserve a protected space on the class schedule for the groups, which would give a consistent time every week for students to look anticipate.

Regarding making the group experience more effective, this counselor had several suggestions in addition to the previously mentioned changes in curriculum and protected

time. Having the same facilitator every week and providing more training for facilitators would improve group delivery. The counselor also believed that all students would benefit from being in a group, though different students have different needs.

> Counselor 4: I think in an ideal world, everyone would have group, but not everyone would have the same group… We would use the data, like from the resiliency scales, to see which students have issues regulating their emotions and screen them into an anger management group. So definitely using the data to inform which group a student should go into.

Regarding the impact of the groups on resiliency, the counselor referred to the data, stating that Sense of Mastery and Emotional Reactivity were both being targeted effectively, but Sense of Relatedness was still an area of growth. As such, the suggestion for the biggest areas of need in the school related to increasing the reach of the school and the counseling goals, expressing a desire for more parental involvement

> Counselor 4: If we have a school population of 250 students, we should have…50 to 60% [of parents] who are actively involved… It would close the gap on so many levels for students who leave us and the learning stops at the door.

This counselor also reported that strides were being made so that school staff could learn the principles of Social and Emotional Learning and that resiliency should be developed across the school, rather than just by the counseling program. The desired outcome was to continue building student resiliency both at home and at school.

Chapter 5: Discussion

The overall purpose of this study was to provide a retrospective analysis of the efficacy of the universal counseling groups that were conducted in an alternative urban high school. The study was conducted in two parts, the first evaluating the impact of the group composition and attendance for the period of the counseling groups and the second soliciting information from participants and facilitators of the groups to determine their perceptions of the major strengths and weaknesses of the group program, as well as the impact on student resiliency.

Results from the quantitative analysis indicate that the starting attributes of the group had no impact on the student's growth in Sense of Mastery, Sense of Relatedness or Emotional Reactivity through the academic year. A supplemental analysis appears to produce statistical or interpretive anomalies. On the other hand, students and staff interviewed believed that the groups improved student resiliency. The overall impressions of the interview respondents were positive. While the interviews had a limited sample size and some selection bias it is possible that the groups had a positive impact that was not measurable. Rychetnik and colleagues (2002) suggest that there is a distinction between evidence of no effect and a failure to demonstrate underlying effectiveness. More analysis would be required to determine which would be the case in this study.

Quantitative Analysis

The quantitative analysis was not necessarily an evaluation of the group intervention, since there was no comparison group to determine the growth of students without group. It is possible that student scores may have decreased and the availability

of groups buffered against that decrease. It is also possible that students' scores would have naturally increased but groups had a harmful effect (Dishion, McCord, & Poulin, 1999) The results from the quantitative analysis showed that, in the case of this study year, the starting resiliency scores of the other members of the group are unrelated to an individual's growth in resiliency through the school year. This result was unexpected, given the previous research on the influence of group characteristics. Since group climate is correlated with individual growth (Miles, Pauquin & Kivlighan, 2011), one might have expected that if the group has scores consistent with poor resiliency (i.e., low Sense of Mastery and Sense of Relatedness, high Emotional Reactivity,) the individual's growth would be hindered, while highly resilient groups would encourage student growth, but that pattern was not seen in this case.

Relationships between aggregated group attributes and change in resiliency in the initial statistical analysis were not significant. One potential explanation for this is the nature of the group variables, particularly in the context of larger groups. The standard deviations of the group scores are much smaller than for the resiliency scores for the larger groups, so variability of the "partner" scores within each group was very low. Given that the partner score is essentially the aggregated scores for the group members minus the individual's contribution to that aggregate (score divided by group size), an individual's score would need to have been extremely different from the group mean to move that score significantly. As such, for larger groups, the partner scores may be closer to a group level variable than an individual level variable, since you will not see much variability between the scores of any two individuals. At the same time, larger groups do

not allow a student much time to interact with the majority of the group, so aggregated partner scores may not accurately reflect how the group affects an individual.

The change in resiliency scores was not large from Fall to Spring. Scores changed less than two points on all three scales, with the only significant change being a decrease in Emotional Reactivity. These data were collected over the course of a single school year, so it is possible that resiliency requires more than that period of time to be impacted by counseling interventions. In the context of the earlier discussion about measurement of resiliency, and particularly with the relatively recent development of the Resiliency Scale for Children and Adolescents, information regarding the stability of the construct and the impact of intervention is unknown. Perhaps tracking the students' resiliency over a longer period of time would give a better indication of how resiliency scores change.

Though an individual's scores showed some degree of movement, it did not appear to be due to the composition of the group during the weekly counseling time. Other interventions targeting resiliency have also shown limited of mixed results (Riley, 2012; Gillham, Reivich, Freres, Chaplin, et al., 2007; Cardemil, Reivich & Seligman, 2002), so the lack of improvement in scores may not be an unusual occurrence. The Resiliency Scales for Children and Adolescents is a measure of a student's overall resiliency, including impact from a student's community and home. While schools can have some impact on resiliency scores, it is likely that the impact of schools will be minimal, compared these other factors. The RSCA questions may not be directly related to the aspects of resiliency on which schools can have an impact, or those aspects may be included within the scales but were not measured by the total index score. For example, some questions pertaining to parents or about other people's actions are outside of the

scope of that a school is able to do in the context of a social skills training or counseling curriculum. This would be analogous to trying to improve student “resilience” or the network of protective factors that a student possesses. There are too many aspects that are not in the direct control of a school, so a school based intervention would have limited effects. Given the narrow scope of a school’s impact a broad measure of resilience might be inadequate to measure a school intervention. A scale more targeted towards school-based resiliency may have shown more pre-posttest changes.

The follow-up analysis, excluding the model for Sense of Mastery due to the previously mentioned difficulties, had interesting results from the final two models, examining Change in Sense of Relatedness and Emotional Reactivity using partner change scores. Positive correlations were found between individual Emotional Reactivity and partner Sense of Relatedness, as well as between individual Sense of Relatedness and partner Emotional Reactivity. Given that the scales are coded in opposite directions, that would imply that improvements by the group is correlated with a decline by the individual, reminiscent of the study by Paquin, Kivlighan and Drogosz (2013). It is possible that students who are seeing their peers improve tend to withdraw from the group, resulting in poorer outcomes. This finding would be a challenging obstacle for group facilitators to counteract, since it would potentially mean that some students are being left behind, particularly in groups that are generally effective. There is reason to believe, however, that in this study this is not the case. Given the minimal changes from Fall to Spring, and the lack of between group differences, the magnitude of group change would be small, as would the corresponding individual change. While the correlation may be significant, it is unlikely to have a meaningful impact on student functioning. Had the

group differences been larger, it would be more meaningful to interpret the significant correlation. While it is possible that students will regress when they are in groups where the other students are improving, but group-wide changes in resiliency were minimal in this data, so this relationship is not interpretable.

In this study, as well as in the normative sample, there was a strong correlation between Sense of Mastery and Sense of Relatedness. This could have had an impact on the statistical analysis, as they were frequently modeled simultaneously as predictors, potentially creating problems with the regression model. While correlated predictors can be included in a regression model, the large correlations found in this study may be an indication that Sense of Relatedness and Sense of Mastery are measuring a similar construct. One composite scale that was not used in this study is the Resource scale, which is a composite of the Sense of Relatedness and Sense of Mastery scales. In future studies, the Resource scale might be used to provide a composite measure of a student's positive protective factors, thereby eliminating the concern of the highly correlated scales.

It is likely that there are other factors outside of the group that are better predictors of change in resiliency, factors that are related to other experiences within school, including some of the risk and protective factors mentioned earlier (e.g., connection with a teacher, academic progress, resiliency of students in the academic classes). Effective interventions targeting aspects of resiliency have been identified. For example, the Check-and-Connect program (Anderson, Christianson, et al, 2004) is an example of an intervention building Sense of Relatedness within the school and impacting long-term student outcomes. Notably, however, Check-and-Connect is not a

group based program, but one based on individual interactions between staff and students. Given the literature regarding the importance of building connections with teachers ((Meeker, Edmonton & Fisher, 2008; Morales, 2008; Murray, 2002), prioritizing student-teacher relationships may be a more effective intervention method than group counseling. The groups provided a convenient area to aggregate since they would in class with students in the same grade level, but there are other interpersonal interactions throughout the school day that may be impacting student resiliency.

Attendance was another variable that was expected to have a significant impact, but did not have any significant relationship to student resiliency. While the attendance variable that was being used was not a perfect measure of the student's attendance, since it was a measure of attendance for a single period through the year, it was conceivable that this attendance variable was a measure of exposure to the other members of the group. Even if the attendance variable was not measuring the intended construct (exposure to the group members and counseling curriculum), it was still an overall indicator of a student's school attendance. Given the evidence linking attendance with academic and social outcomes (Henry & Huizinga, 2007), it is unusual that the attendance of a student was unrelated to the student's outcomes. There are a few possible explanations for this. The first is the nature of the attendance data. There is no guarantee that the teachers and leaders were consistent in their attendance taking practices. The period was a non-academic period that was frequently led by staff members who were not teachers and in the case of the TOPS program an external group of facilitators, so it is likely that attendance monitoring procedures was not uniform across the entire school.

Another factor to take into account is the group period was designated for social and emotional learning but did not specifically target the factors of resiliency measured by the RSCA. The period was designated as a time to work on non-academic skills to prepare the student's for the next steps after high school. The groups took place one day per week, but for the remainder of the week, resiliency was not the primary focus of the class. While the three group counseling curricula were selected to meet the needs of the students in the school and there were topics related to the specific scales of the RSCA, but it is plausible that the groups were effective in building the intended skills without having an impact on student resiliency scores.

The resiliency scale is assumed to be an accurate measure of the student's ability to cope with adversity. While there are correlations among the resiliency scales, there was no data available regarding academic scores, disciplinary referrals, dropout risk, or other variables that can be correlated with the RSCA to help draw connection with student outcomes. Such an analysis would help determine if the RSCA is a valid measure of student resiliency for this population of students. Internal protective factors have been sighted in a number of school related outcomes, included school completion (Murray & Naranjo, 2008). The correlations among scales in the expected directions and magnitudes are a positive sign that the scales are validly measuring what the survey designer intended, but additional data linking resiliency to relevant academic factors would help inform the topic of school-related resiliency. A scale with greater predictive validity would help strengthen the connection between the resiliency construct and the measures used in this present study.

Interview Analysis

In the interview discussions, some common themes emerged, especially in light of the quantitative results. Regarding the impact of the counseling groups on students' resiliency, the majority of students and counselors believed that the groups taught important skills or enabled students to grow resiliency. Interestingly, most of the students believed that Sense of Mastery was improved through the groups, while few believed that Emotional Reactivity was impacted, while the quantitative data showed the exact opposite, with Emotional Reactivity as the only scale that significantly improved. While it is possible that the students were describing their experiences, which may not be representative, the counselors also believed that groups positively impacted resilience. This discrepancy could suggest that, while the groups are positively impacting student resiliency, other aspects of the students' school experiences are negatively impacting resiliency.

Other common themes were that students and counselors largely favored a model of group counseling delivery where everybody in the school is participating in a group, though groups are tailored to the needs and desires of the students. For a school that is attempting to implement group counseling, the fact that students and facilitators see the benefit of the groups is a positive sign. Interviewees also desired a differentiated curriculum, where particular student needs are met. During the study year, the school offered different groups by grade level, but in subsequent years, a smaller number of groups were held, with targeted topics, like anger management and grief. Both approaches had some benefits in the eyes of those who were interviewed.

With this desire for differentiated and targeted groups, many students wanted to have input in what groups would be held and which they would attend. This is possibly a critique of the standardized manualized curriculum, where the topics are predetermined and may have been viewed as being irrelevant. The counselors who facilitated the groups seemed fairly critical of the curricula as well, reporting that they took the ideas for topics from the curriculum, but made adjustments and edits, typically not following the scripted lessons. The counselor who favored a standardized curriculum shared concerns about the appropriateness of the lesson plans, desiring an evidence-based program that is sensitive to the needs of students who have multiple risk factors and who need to build resiliency. This counselor believed that having a program helped standardize the intervention, while also allowing facilitators of different skill levels to be comfortable leading the groups. While numerous psycho-educational programs exist, this school was still in search of one which met the needs of the students, targeted student resilience, included enough flexibility to have a variety of activities and also keep students engaged.

Regarding barriers to effective groups, both counselors and students reflected on interruptions to group processes, but in different ways. Students mainly discussed ways that other students interrupted or hindered the group. Those were most often students who were in the group but interrupted the group facilitator or interfered with group processes. The other concern among students were disengaged students, who were absent or not involved in the group process. These challenges were reportedly handled well by group facilitators, but it was a frequent concern. One comment made by a group participant which seems salient to these points regarding the communication of the purpose of the groups. While groups will not be a priority for every student and disruptions will always

be a challenge in groups, communicating the purpose and obtaining a common understanding of the groups may reduce some of these disruptions.

The interruptions reported by counselors were more related to interruptions caused by scheduling, holidays, and groups pre-empted by other meetings. The counselors reported the desire for a dedicated time without interruptions. These were situations that were largely out of the control of the counselors, as they were primarily related to administrative decisions to hold a meeting or assembly during that time period, or due to an emergency requiring the counselor's attention. These challenges would be difficult for any individual facilitator to overcome, requiring instead an administrative-level priority to be placed on the groups, holding the group time as a protected time period, during which schedule interruptions would only infrequently occur.

These interruptions in addition to the changes made by the facilitators to the curriculum, suggests that the treatment fidelity is questionable. In this study, counselor confirmed that they made modifications to the curriculum, which they viewed as a necessary step to ensure that the content was engaging. While these likely improved group interactions, it changed the intervention, making it impossible to determine if the intervention has an impact on resiliency. Had the intervention been effective, these changes would limit the generalizability, as the original intervention was unique to the counselor and essentially unrepeatable, even for that same facilitator.

Virtues and Limitations

This study was a retrospective analysis of the effectiveness of a school's group counseling program, with particular focus on how the group composition impacted

student resiliency. While it was not a program outcome evaluation, with over a year elapsing between the time of the study and the end of the year being evaluated, the results provided some insights into how a school might implement a group counseling program and measure its effectiveness.

Since archival data were being used for the analysis, there was less control over data collection procedures and certain aspects of the group counseling. In particular, this study did not contain a control group to allow for a direct comparison. Given the structure of the counseling program, there was no group that was either receiving “no treatment” or that used the time for groups to for academic work, which would have provided a contrasting group. This made it difficult to draw any causal inferences about the impact of the group counseling.

The information in the dataset that was used was limited. One problem was missing data. Though the excluded students for whom partial data were available were not significantly different from the students who were involved in the analysis, those students who did not complete the survey could not be part of the calculation of the aggregated partner scores. The attendance variable that was used in this study was an imperfect measure of group exposure. A record of attendance on group days would have allowed for a direct analysis of student commitment and exposure to the group counseling. It would have also been beneficial to get more information about the students. For example, additional academic and discipline data would have allowed for more detailed analysis of the resiliency scales and the link to outcomes within the school. These data, however, were not made available by the school.

There were challenges with the interview study as well. Since the interviews were conducted over a year after the end of the universal group counseling, students had a difficult time remembering specifics about groups that were successful or unsuccessful. With more detailed reporting conducted within a closer time period, it is possible that some different themes would have emerged. Additionally, the interview subject pool was limited to students who were at the school and who were over the age of 18 years old. This meant that those who were in the On Course curriculum had already graduate from the school and those students not all students who remained were included in the invitation to participate. If a school were to conduct in internal evaluation of a group counseling program, these limitations would be reduced by the immediacy of the evaluation and access to the students.

Despite these limitations, this study had some strengths that can be benefit the future study of resiliency and evaluation of group counseling approaches. In particular, reflections from the interviews provided an in depth analysis of what it is like to participate in the groups, with all of the flaws and challenges, but to also see the benefits. Students and counselors were had strong opinions about what kind of programs would help grow resiliency and many of the comments fell into the common themes that were reported. With all of the difficulties of the school environment, interruptions in the schedule, and challenges with working with at-risk students, the overwhelming consensus was that counseling groups can be an effective way to build student resiliency. This should encourage more group counseling interventions and guide the evaluation of those groups to ensure that impacts are being maximized

Implications for research and practice

The limitations from this study provided useful insight into how a group counseling program might be constructed and evaluated. While the use of archival data was helpful, if a similar program of universal counseling groups were to be repeated, several changes are advisable.

Participant selection

Reflections from staff and students suggest that all students should be involved in the program. Given the population of the school and the acceptability of the treatment from those who were interviewed, it would seem that all students would benefit from groups and should be placed into a counseling group. In the case of the study school, the groups were pre-arranged, grade-level groups that were programmed to be together once per day for a non-academic period. This kind of arrangement would ensure that all students are a part of a group while academic courses are not disrupted.

Selecting curriculum

Staff and students recommended differentiation in the counseling curriculum to allow for more engaging topics to be frequently presented. While this flexibility is desirable in a counseling group, it was often the role of the counselor to make modifications to the curriculum, which was done at the expense of treatment integrity. The ideal curriculum would include lessons built around empirically-based principles that have been shown to promote resiliency in at-risk students. This curriculum would include a variety of different activities and techniques to build student's skills, with attention given to allowing students to reflect on how to apply these skills to conflicts and problems that they are already facing. For the facilitators, a scripted lesson will ensure

consistency of implementation, but would allow enough flexibility that a leader would be able to tailor the experience to his or her group.

Differentiation of curriculum to create topical groups would make program evaluation difficult, since not all students would be receiving the same curriculum. It can occur, however, on the basis of more systematic factors, such as grade level, which would allow for accurate group comparisons. To address the multiple needs of the students, the group would be broad enough that multiple student needs will be addressed as the curriculum progresses.

Facilitator training

Besides using an empirically-driven curriculum, adequate facilitator training is a vital part of effective groups. Given evidence that groups led by experienced clinicians are more effective than those led by other school staff (Baskin, Slaten, Crosby, Pufahl, et al, 2010), competent group leaders are a vital aspect of effective groups. In addition to ensuring facilitator skill level, training in the particular group curriculum is an important aspect of encouraging treatment fidelity. It would also give group leaders an opportunity to develop strategies to manage problematic behavior within the group.

Implementation and Evaluation

The Institute for Educational Science (What Works Clearinghouse, 2014) provides criteria that can be used to determine the strength of the evidence regarding an intervention. Studies meeting the highest standard of evidence include two vital attributes that were missing in the groups included in this study: random assignment to groups and a control group for comparison. This analysis was a One-Group Pretest-Posttest Design (Shadish, Cook, and Campbell, 2002), a quasi-experimental design that has several

weaknesses, including a failure to account for effects of maturity, history, and differences in implementation. For a group program in a school, a potential ethical argument against a randomized controlled trial would be that withholding the potentially effective treatment from one half of the students would be problematic. In this study, however, there was no evidence that the intervention was effective, and with the possibility of harmful effects due to iatrogenic effects of groups a randomized controlled trial would be an appropriate to determine if the counseling groups have any effect, the time required to make a positive impact, and aspects of the group that will either help or harm. This control is necessary to draw a causal inference between interventions and outcomes. Particularly in this study, with many of the interview responses did not reflect positively about the counseling curricula, a randomized trial would inform the selection of a curriculum for broader use.

If an effective treatment model is identified, implementation design could be used to ensure that students receive effective treatment, while also allowing for a comparison group. For example, an Untreated Control Group Design with Dependent Pretest and Posttest Samples Using Switching Replication (Shadish, Cook, and Campbell, 2002) could be used in conjunction with random assignment to create an evaluation model. This would ensure a comparison group with a pretest and posttest, which allows tracking outcomes after each group and enables all students to receive the group intervention. Additionally, it minimizes the number of groups being facilitated simultaneously, allowing group facilitators to have additional planning time and reducing the strain on resources.

Such an evaluation would require implementation evaluation. Evidence-based programs can be used in schools, but if facilitators are not implementing the program as written, they are changing the program. When interventions are unsuccessful, one must determine if the lack of progress is due to errors in the theory of change or faulty implementation (Rychetnik, Frommer, Hawe, A Shiell, 2002). To accomplish this, sufficient data must be collected regarding treatment (e.g., student attendance, number of sessions completed), implementation (i.e., to what extent was the curriculum followed), and outcomes (what were the results in the treatment and control groups). Without implementation fidelity, it is not possible to evaluate if the intervention, as designed, can have the intended impact. Sufficient training in group facilitation, preparation time and monitoring of group facilitation will provide evidence regarding the implementation.

Other logistical considerations

An outcome measure appropriate to the intended outcome of the groups is essential. In this study, the Resiliency Scales for Children and Adolescents were used, but the outcome should be selected to measure the desired outcomes for the students. This outcome measure should be collected by the group leaders at the various time points, so the leader can follow up with students who did not complete the measure or who were absent. This will allow for adequate tracking of completion. The group leader should also keep records of attendance in the groups to track exposure to the group curriculum.

Schools that are prioritizing group counseling should make an effort to ensure that group times are not pre-empted and that, barring emergencies, group facilitators are not interrupted from leading the groups. Supervisors should evaluate treatment integrity by frequently measuring treatment acceptance and fidelity among facilitators and students.

Finally, a comprehensive approach to social and emotional learning will include more than a single group counseling experience per week. Given evidence that teachers can be effective in primary prevention for student mental health concerns (Franklin, Kim, Ryan, Kelly, et al, 2012), an integrated approach, where the principles of the program are incorporated and emphasized throughout the school would increase the impact. Extending the program to collaboration with the home is a desirable step for schools to increase the impact.

Conclusions

In a reflective article about a group counseling experience with at-risk youth, Edelman and Redmond (2005) reported many of the challenges that existed in this school, including students refusing to complete the data surveys, challenges with groups that rely primarily on handouts, and the need to modify the curriculum to meet the needs of students. As resilience and resiliency are growing fields of research, this study sought to evaluate the efficacy of one school's attempt to impact student resiliency, and the influence of group composition on it. Though no evidence of effectiveness was observed, past attempts to modify resiliency have shown mixed results (e.g, Riley, 2012). While there were challenges, qualitative reports indicate positive impressions of the group counseling intervention among facilitators and participants, suggesting that groups can be a pathway to improving resiliency. The search for an intervention framework is an ongoing process of planning, evaluation, and modification, but group counseling can be a potentially powerful delivery method to improve resiliency, which could potentially improve the future of students.

Appendices

Appendix A

Comparison Between Students Included and Excluded from the Analysis

		Sense of Mastery		Sense of Relatedness		Emotional Reactivity	
	N	Mean	SD	Mean	SD	Mean	SD
Fall							
Excluded	63	48.27	9.19	45.41	9.77	54.97	14.53
Included	171	48.04	9.44	43.90	9.55	54.87	11.69
Spring							
Excluded	39	47.36	10.08	42.46	8.17	52.00	11.42
Included	171	47.85	9.08	43.76	9.16	53.06	10.44

Appendix B- Results of One-Sample T-Tests for Fall and Spring Index Scores

Outcome	M	SD	n	Comparison Value	t	Sig.
Fall Sense of Mastery	48.04	9.44	171	50	-2.715	.007
Fall Sense of Relatedness	43.90	9.55	171	50	-8.350	.000
Fall Emotional Reactivity	54.87	11.69	171	50	5.442	.000
Spring Sense of Mastery	47.85	9.08	171	50	-3.093	.002
Spring Sense of Relatedness	43.76	9.16	171	50	-8.911	.000
Spring Emotional Reactivity	53.06	10.44	171	50	3.838	.000

Appendix C

One Way Analysis of Variance of Fall and Spring Index Scores by Grade

Resiliency Index	Variance	df	Sum of Squares	Mean Square	F	Sig.
Fall Sense of Mastery	Between Groups	3	645.69	215.23	2.481	.063
	Within Groups	167	14487.03	86.75		
	Total	170	15132.71			
Fall Sense of Relatedness	Between Groups	3	550.20	183.40	2.047	.109
	Within Groups	167	14961.11	89.59		
	Total	170	15511.31			
Fall Emotional Reactivity	Between Groups	3	741.01	247.00	1.834	.143
	Within Groups	167	22496.90	134.71		
	Total	170	23237.91			

Resiliency Index	Variance	df	Sum of Squares	Mean Square	F	Sig.
Spring Sense of Mastery	Between Groups	3	239.75	79.92	0.970	.408
	Within Groups	167	13759.60	82.39		
	Total	170	13999.35			
Spring Sense of Relatedness	Between Groups	3	396.70	132.23	1.594	.193
	Within Groups	167	13856.47	82.97		
	Total	170	14253.17			
Spring Emotional Reactivity	Between Groups	3	447.31	149.10	1.377	.252
	Within Groups	167	18082.99	108.28		
	Total	170	18530.29			

Appendix D

One Way Analysis of Variance of Change in Resiliency Scores by Grade

Resiliency Index	Variance	df	Sum of Squares	Mean Square	F	Sig.
Change in Sense of Mastery	Between Groups	3	100.69	33.56	.397	.755
	Within Groups	167	14113.32	84.51		
	Total	170	14214.01			
Change in Sense of Relatedness	Between Groups	3	16.80	5.60	.068	.977
	Within Groups	167	13673.83	81.88		
	Total	170	13690.63			
Change in Emotional Reactivity	Between Groups	3	176.10	58.70	.689	.560
	Within Groups	167	14233.14	85.23		
	Total	170	14409.24			

Appendix E

One Way Analysis of Variance of Change in Resiliency Scores by Counseling Group Type

		df	Sum of Squares	Mean Square	F	Sig.
Change in Sense of Mastery	Between Groups	2	32.19	16.10	.191	.827
	Within Groups	168	14181.82	84.42		
	Total	170	14214.01			
Change in Sense of Relatedness	Between Groups	2	9.51	4.75	.058	.943
	Within Groups	168	13681.13	81.44		
	Total	170	13690.63			
Change in Emotional Reactivity	Between Groups	2	148.69	74.33	.876	.418
	Within Groups	168	14260.57	84.88		
	Total	170	14409.24			

Appendix F- Student Interview Questions

1. What are some things that made groups effective?
    a) Can you think of any examples of groups that went well?
    b) What enabled the group to be effective?
    c) How often do you feel like the groups were successful?
2. Did you experience any recurring challenges during that limited the effectiveness of the groups?
    a) Can you think of any examples of these challenges?
    b) How did it affect the group?
3. What do you think would create a more effective group experience for students?
    a) What should be the goals of the counseling groups?
    b) Which students should participate in groups?
4. Goals of the group – I am going to ask you some questions about the results of the group that you were in. These questions are not about <u>you</u> or <u>your</u> own personal experiences, but about the students in your group in general.
    a) How effective do you think the groups were at improving student resiliency?
        i. To what degree did it help build the students' self-concept
        ii. To what degree did it help build students' connections with peers and school staff
        iii. To what degree did it help the students learn how to manage their emotions?
    b) What would you like to see done differently to help students build resiliency and become successful?

Appendix G- Counselor Interview Questions

1. How long have you been working as a (teacher/counselor)?
    a) How long have you been at this school?
2. What was your role last year in the Counseling/Future Focus class?
    a) Which curriculum/topics did you use/learn?
3. What are your impressions of the effectiveness of the counseling groups?
    a) To what degree were you able to follow the written curriculum?
    b) What were some barriers to implementing the curriculum as it was written?
4. What are some things that made groups effective?
    a) Can you think of any examples of groups that went well?
    b) What enabled the group to be effective?
    c) How often do you feel like the groups were successful?
5. Did you experience any recurring challenges during that limited the effectiveness of the groups?
    a) Can you think of any examples of these challenges?
    b) How did it affect the group?
    c) How did you respond?
    d) How did the students respond?
    e) Did you take any steps to overcome these challenges?
6. What do you think would create a more effective group experience for students?
    a) What should be the goals of the counseling groups?
    b) Which students should participate in groups?
7. Goals of the group
    a) Were groups effective in meeting curriculum goals
    b) How effective at improving student resiliency?
        i. To what degree did it help build the students' self-concept
        ii. To what degree did it help build connections with peers and school staff
        iii. To what degree did it help the students learn how to manage their emotions?
    c) What is the biggest need at the school?
    d) What would you like to see done differently to help students build resiliency and become successful?

References

Allen, J. P., & Philliber, S. (2001). Who benefits most from a broadly targeted prevention program? Differential efficacy across populations in the Teen Outreach program. *Journal of Community Psychology*, *29*, 637-655

Anderson, A. R., Christenson, S. L., Sinclair, M. F., & Lehr, C. A. (2004). Check & Connect: The importance of relationships for promoting engagement with school. *Journal of School Psychology, 42,* 95-114.

Arnold, M. E. & Hughes, J. N. (1999). First do no harm: Adverse effects of grouping deviant youth for skills training. *Journal of School Psychology, 37*, 99-115.

Bandura, A., Caprara, G., Barbaranelli, C., Gerbino, M., & Pastorelli, C. (2003). Role of affective self-regulatory efficacy in diverse spheres of psychosocial functioning. *Child Development*, *74*, 769-782.

Banks, T. (2011). Helping students manage emotions: REBT as a mental health educational curriculum. *Educational Psychology in Practice*, *27*, 383-394.

Baskin, T. W., Slaten, C. D., Crosby, N. R., Pufahl, T., Schneller, C. L., & Ladell, M. (2010). Efficacy of Counseling and Psychotherapy in Schools: A Meta-Analytic Review of Treatment Outcome Studies. *The Counseling Psychologist*, *38*, 878-903.

Battin-Pearson, S., Newcomb, M. D., Abbott, R. D., Hill, K. G., Catalano, R. F., & Hawkins, J. (2000). Predictors of early high school dropout: A test of five theories. *Journal of Educational Psychology*, *92*, 568-582.

Bender, S. L., Fedor, M. C., & Carlson, J. S. (2011). Examining protective factors and risk factors in urban and rural Head Start preschoolers. *Journal of Community Psychology*, *39*, 908-921.

Bennett, P., Elliott, M., & Peters, D. (2005). Classroom and Family Effects on Children's Social and Behavioral Problems. *Elementary School Journal*, *105*,461-480.

Biederman, J., Monuteaux, M. C., Mick, E., Spencer, T., Wilens, T. E., Silva, J. M., et al. (2006). Young adult outcome of attention deficit hyperactivity disorder: a controlled 10-year follow-up study. *Psychological medicine*, *36*, 167-180.

Borman, G. D., & Overman, L. T. (2004). Academic Resilience in Mathematics among Poor and Minority Students. *Elementary School Journal*, *104*, 177

Bowen, N. K., Bowen, G. L., & Ware, W. B. (2002). Neighborhood social disorganization, families, and the educational behavior of adolescents. *Journal of Adolescent Research*, *17*, 468-90.

Bradley, R., Doolittle, J., & Bartolotta, R. (2008). Building on the data and adding to the discussion: The experiences and outcomes of students with emotional disturbance. *Journal of Behavioral Education, 17,* 4-23.

Brown, T., Schulenberg, J., Bachman, J., O'Malley, P., & Johnston, L. (2001). Are risk and protective factors for substance use consistent across historical time?: National data from the high school classes of 1976 through 1997. *Prevention Science, 2,* 29-43.

Caprara, G. V., Vecchione, M., Allesandri, G. Gerbino, M., & Berbernelli, C. (2011). The contribution of personality traits and self-efficacy beliefs to academic achievement: A longitudinal study. *British Journal of Educational Psychology, 81,* 78-96.

Cardemil, E. V., Reivich, K. J., & Seligman, M. P. (2002). The prevention of depressive symptoms in low-income minority middle school students. *Prevention & Treatment, 5,* Article 8.

Carter, E. W., Lane, K., Crnobori, M., Bruhn, A. L., & Oakes, W. P. (2011). Self-determination interventions for students with and at risk for emotional and behavioral disorders: Mapping the knowledge base. *Behavioral Disorders, 36,* 100.

CASEL- Collabrative for Academic, Social, and Emotional Learning. (2015). http://www.casel.org/social-and-emotional-learning/core-competencies/. In SEL Core Competencies. Retrieved October 16, 2015, from http://www.casel.org.

Casillas, A., Robbins, S., Allen, J., Kuo, Y., Hanson, M., & Schmeiser, C. (2012). Predicting early academic failure in high school from prior academic achievement, psychosocial characteristics, and behavior. *Journal of Educational Psychology, 104,* 407-420.

Catterall, J. S. (1998) Risk and resilience in student transitions to high school. *American Journal of Education, 106,* 302-333.

Cécile, M., & Born, M. (2009). Intervention in juvenile delinquency: Danger of iatrogenic effects?. *Children and Youth Services Review, 31,* 1217-1221.

Cheung, C., & Pomerantz, E. M. (2012). Why does parents' involvement enhance children's achievement? The role of parent-oriented motivation. *Journal of Educational Psychology, 104,* 820-832.

Christiansen, E. J., & Evans, W. P. (2005). Adolescent victimization: testing models of resiliency by gender. *Journal of Early Adolescence, 25,* 298-316.

Christenson, S. L., Thurlow, M. L., Sinclair, M. F., Lehr, C. A., Kaibel, C. M., Reschly, A. L., Mavis, A., & Pohl, A. (2008). *Check & Connect: A comprehensive student*

engagement intervention manual. Minneapolis, MN: University of Minnesota, Institute on Community Integration.

Clark, T. T., Nguyen, A. B., & Belgrave, F. Z. (2011). Risk and protective factors for alcohol and marijuana use among African-American rural and urban adolescents. *Journal of Child & Adolescent Substance Abuse, 20,* 205-220.

Cleveland, M. J., Collins, L. M., Lanza, S. T., Greenberg, M. T., & Feinberg, M. E. (2010). Does individual risk moderate the effect of contextual-level protective factors? A latent class analysis of substance use. *Journal of Prevention & Intervention, 38,* 213-228.

Cleveland, M., Feinberg, M., Bontempo, D., & Greenberg, M. (2008). The role of risk and protective factors in substance use across adolescence. *Journal of Adolescent Health, 43,* 157-164.

Clinton-Sherrod, M., Sobeck, J., Abbey, A., Agius, E., & Terry, K. (2005). the role of psychosocial factors in the transition to substance use: Are they protective among urban minority adolescents?. *The Journal Of Primary Prevention, 26,* 511-528.

Collins, D., Pan, Z., Johnson, K., Courser, M., & Shamblen, S. (2009). Individual and contextual predictors of inhalant use among 8th graders: a multilevel analysis. *Journal of Drug Education, 38(3),* 193-210.

Corey, M., Corey, G., & Corey, C. (2010). *Groups: Process & practice* (8th ed.). California: Brooks/Cole.

Corrigan, M. W., Gove, D., & Douglass, J. (2014). A quasi-experimental study on the efficacy of School-Connect®: optimizing the high school experience. Retrieved from http://www.school-connect.net/pdf/SchoolConnect_EvaluationReport.pdf

Crosnoe, R. (2006). The connection between academic failure and adolescent drinking in secondary school. *Sociology of Education, 79,* 44.

Daigneault, I., Dion, J., Hebert, M., McDuff, P., & Collin-Vezina, D. (2013). Psychometric properties of the Child and Youth Resilience Measure (CYRM-28) among samples of French Canadian youth. *Child Abuse & Neglect: The International Journal, 37,* 160-171.

Dishion, T. J., McCord, J., & Poulin, F. (1999). When interventions harm: peer groups and problem behavior. *American Psychologist, 54,* 755-764.

Donohoe, C., Topping, K., & Hannah, E. (2012). The impact of an online intervention (Brainology) on the mindset and resiliency of secondary school pupils: A preliminary mixed methods study. *Educational Psychology, 32,* 641-655.

Downing, S. (2008). *On Course: Strategies for creating success in college and in life* (5th ed.). Boston, MA: Houghton Mifflin Company.

Edelman, S., & Remond, L. (2005). Group cognitive behavior therapy program with troubled adolescents: A learning experience. *Child & family behavior therapy, 27*, 47-59.

Eklund, K., Renshaw, T. L., Dowdy, E., Jimerson, S. R., Hart, S. R., Jones, C. N., & Earhart, J. (2009). Early identification of behavioral and emotional problems in youth: Universal screening versus teacher-referral identification. *The California School Psychologist*, *14*, 89-95.

Elliott, S. N., Huai, N., & Roach, A. T. (2007). Universal and early screening for educational difficulties: Current and future approaches. *Journal of School Psychology*, *45*, 137-161.

Emory, R., Caughy, M., Harris, T., & Franzini, L. (2008). Neighborhood social processes and academic achievement in elementary school. *Journal of Community Psychology*, *36*, 885-898.

Espelage, D. L., Low, S., Rao, M. A., Hong, J. S., & Little, T. D. (2014). Family violence, bullying, fighting, and substance use among adolescents: A longitudinal mediational model. *Journal of Research on Adolescence*, *24*, 337-349.

Esquivel, G. B., Doll, B., & Oades-Sese, G. V. (2011). Introduction to the special issue: Resilience in schools. *Psychology in the Schools*, *48*, 649-651.

Evans, W., Marsh, S., & Weigel, D. (2010). Promoting adolescent sense of coherence: testing models of risk, protection, and resiliency. *Journal of Community & Applied Social Psychology*, *20*, 30-43.

Evans, G. W., & Rosenbaum, J. (2008). Self-regulation and the income-achievement gap. *Early Childhood Research Quarterly*, *23*, 504-514.

Fagan, A. A., Van Horn, M., Hawkins, J., & Arthur, M. (2007). Using community and family risk and protective factors for community-based prevention planning. *Journal of Community Psychology*, *35*, 535-555.

Ferguson, K. M., & Xie, B. (2012). Adult support and substance use among homeless youths who attend high school. *Child & Youth Care Forum*, *41*, 427-445.

Fitzpatrick, K. M., Piko, B. F., & Miller, E. (2008). Suicide ideation and attempts among low-income African American adolescents. *Suicide and Life-Threatening Behavior*, *38*, 552-563.

Gavin, L. E., Catalano, R. F., David-Ferdon, C. C., Gloppen, K. M., & Markham, C. M. (2010). A review of positive youth development programs that promote adolescent sexual and reproductive health. *Journal of Adolescent Health*, *46*, S75-S91.

Gerrity, D., & DeLucia-Waack, J. (2007). Effectiveness of groups in the schools. *Journal for Specialists in Group Work*, *32*, 97-109

Gillham, J. E., Reivich, K. J., Freres, D. R., Chaplin, T. M., Shatté, A. J., Samuels, B., et al. (2007). School-based prevention of depressive symptoms: A randomized controlled study of the effectiveness and specificity of the Penn Resiliency Program. *Journal of Consulting and Clinical Psychology*, *75*, 9-19.

Glover, T. A., & Albers, C. A. (2007). Considerations for evaluating universal screening assessments. *Journal of School Psychology*, *45*, 117-135.

Grant, D. S., & Berkovitz, I. H. (1999). Values of long term group counseling in middle and high school. *Journal of Child & Adolescent Group Therapy*, *9*, 17-25.

Gruber, E., & Machamer, A. (2000). Risk of school failure as an early indicator of other health risk behaviour in American high school students. *Health, Risk & Society*, *2*, 59-68.

Guay, F., Marsh, H. W., & Boivin, M. (2003). Academic self-concept and academic achievement: Developmental perspectives on their causal ordering. *Journal of Educational Psychology*, *95*, 124-136.

Gutman, L., Sameroff, A., & Eccles, J. (2002). The academic achievement of African American students during early adolescence: an examination of multiple risk, promotive, and protective factors. *American Journal of Community Psychology*, *30*, 367-399.

Hall-Lande, J., Eisenberg, M., Christenson, S., & Neumark-Sztainer, D. (2007). Social isolation, psychological health and protective factors in adolescence. *Adolescence*, *42*, 265-286.

Hallinan, M. T. (2008). Teacher influences on students' attachment to school. *Sociology of Education*, *81*, 271-283.

Harlow, K., & Roberts, R. (2010). An exploration of the relationship between social and psychological factors and being bullied. *Children & Schools*, *32*, 15-26.

Hart, C. O., & Mueller, C. E. (2013). School delinquency and social bond factors: Exploring gendered differences among a national sample of 10th graders. *Psychology in the Schools*, *50*, 116-133.

Hawkins, J., Van Horn, M., & Arthur, M. (2004). Community variation in risk and protective factors and substance use outcomes. *Prevention Science*, *5*, 213-220.

Henry, K., & Huizinga, D. (2007). School-related risk and protective factors associated with truancy among urban youth placed at risk. *The Journal of Primary Prevention*, *28*, 505-519.

Herrenkohl, T., Lee, J., & Hawkins, J. (2012). Risk versus direct protective factors and youth violence: Seattle social development project. *American Journal of Preventive Medicine*, *43*(2 Suppl 1), S41-56.

Jodl, K. M., Michael, A., Malanchuk, O., Eccles, J. S., & Sameroff, A. (2001). Parents' roles in shaping early adolescents' occupational aspirations. *Child Development*, *72*, 1247-65.

Jurecska, D. E., Hamilton, E. B., & Peterson, M. A. (2011). Effectiveness of the Coping Power Program in middle-school children with disruptive behaviours and hyperactivity difficulties. *Support for Learning*, *26*, 168-172.

Kashy, D. A., & Kenny, D. A. (2000). The analysis of data from dyads and groups. In H. T.Reis & C. M.Judd (Eds.), *Handbook of research methods in social and personality psychology* (pp. 451–477). New York, NY: Cambridge University Press.

Kenny, D. A., & Garcia, R. L. (2012). Using the actor–partner interdependence model to study the effects of group composition. *Small Group Research, 43*, 468–496.

Kivlighan, D., Jr., Kivlighan, D. M., & Cole, O. (2012). The group's absence norm and commitment to the group as predictors of group member absence in the next session: An actor–partner analysis. *Journal of Counseling Psychology, 59*, 41–49.

Kwok, O., Hughes, J. N., & Luo, W. (2007). Role of resilient personality on lower achieving first grade students' current and future achievement. *Journal of School Psychology*, *45*, 61-82.

Lin, H., Lawrence, F. R., & Gorrell, J. (2003). Kindergarten teachers' views of children's readiness for school. *Early Childhood Research Quarterly, 18*, 225-37.

Lo, C. C., Kim, Y. S., Allen, T. M., Allen, A. N., Minugh, P., & Lomuto, N. (2011). The impact of school environment and grade level on student delinquency: A multilevel modeling approach. *Crime & Delinquency*, *57*, 622-657.

Lochman, J.E., Wells, K., & Lenhart, L. (2008). *Coping Power: Child Group Facilitator's Guide*. New York: Oxford University Press.

Lochman, J. E., Wells, K. C., Qu, L., & Chen, L. (2012). Three year follow-up of coping power intervention effects: Evidence of neighborhood moderation? .*Prevention Science*, *14*, 1-13.

Lucio, R., Hunt, E., & Bornovalova, M. (2012). Identifying the necessary and sufficient number of risk factors for predicting academic failure. *Developmental Psychology*, *48*, 422-428

Luthar, S., Cicchetti, D, & Becker, B. (2000). The construct of resilience: A critical evaluation and guidelines for future work. *Child Development, 71*, 543-562.

Mager, W., Milich, R., Harris, M. J., & Howard, A. (2005). Intervention groups for adolescents with conduct problems: Is aggregation harmful or helpful?. *Journal of Abnormal Child Psychology, 33,* 349-362.

Markstrom, C. A., Marshall, S. K., & Tryon, R. J. (2000). Resiliency, social support, and coping in rural low-income Appalachian adolescents from two racial groups. *Journal of Adolescence, 23,* 693-703.

Marsh, H. W. (1992). Content specificity of relations between academic achievement and academic self-concept. *Journal of Educational Psychology, 84,* 35-42.

Marsh, S. C., & Evans, W. P. (2007). Carrying a weapon to school: The influence of youth assets at home and school. *Journal of School Violence, 6,* 131-147.

Marsh, S. C., Evans, W. P., & Weigel, D. J. (2009). Exploring Models of Resiliency by Gender in Relation to Adolescent Victimization. *Victims & Offenders, 4,* 230-248.

Mason, W., Hawkins, J., Kosterman, R., & Catalano, R. F. (2010). Alcohol use disorders and depression: protective factors in the development of unique versus comorbid outcomes. *Journal of Child & Adolescent Substance Abuse, 19,* 309-323.

McRoberts, C., Burlingame, G. M., & Hoag, M. J. (1998). Comparative efficacy of individual and group psychotherapy: A meta-analytic perspective. *Group Dynamics: Theory, Research, and Practice, 2,* 101-117.

Meeker, S. D., Edmonson, S., & Fisher, A. (2008). The Voices of High School Dropouts: Implications for Research and Practice. *International Journal on School Disaffection, 6,* 40-52.

Miles, J. R., Paquin, J. D., & Kivlighan, Jr. (2011). Amount and consistency, two components of group norms: An actor partner interdependence analysis of intimate behaviors in groups. *Group Dynamics: Theory, Research, and Practice, 15,* 326–342.

Moon, D., Jackson, K., & Hecht, M. (2000). Family risk and resiliency factors, substance use, and the drug resistance process in adolescence. *Journal Of Drug Education, 30,* 373-398.

Moos, R. H., & Moos, B. S. (1978). Classroom social climate and student absences and grades. *Journal of Educational Psychology, 70,* 263-269.

Morales, E. E. (2008). A focus on hope: Toward a more comprehensive theory of academic resiliency among at-risk minority students. *Journal of At-Risk Issues, 14,* 23-32.

Mowat, J. G. (2010). Towards the development of self-regulation in pupils experiencing social and emotional behavioural difficulties (SEBD). *Emotional and Behavioural Difficulties, 15,* 189-206.

Murray, C. (2002). Supportive teacher-student relationships: Promoting the social and emotional health of early adolescents with high incidence disabilities. *Childhood Education*, *78*, 285-290.

Murray, C., & Naranjo, J. (2008). Poor, black, learning disabled, and graduating an investigation of factors and processes associated with school completion among high-risk urban youth. *Remedial and Special Education*, *29*, 145-160.

Murray, C. & Zvoch K (2011). Teacher–student relationships among behaviorally at-risk African American youth from low-income backgrounds: Student perceptions, teacher perceptions, and socioemotional adjustment correlates. *Journal of Emotional and Behavioral Disorders*, *19*, 41-54.

Nasim, A. A., Berry, B. M., Belgrave, F. Z., Corona, R. R., & Turf, E. E. (2010). Ethnic considerations in risk exposure and cigarette use vulnerability among eighth grade students in Virginia. *International Quarterly of Community Health Education*, *31*, 229-244

Nation, M., Crusto, C., Wandersman, A., Kumpfer, K. L., Morrisey-Kane,E., et al. (2003). What works in prevention: Principles of effective prevention programs. *American Psychologist*, *58*, 449-456.

O'Connor, E., & McCartney, K. (2007). Examining teacher–child relationships and achievement as part of an ecological model of development. *American Educational Research Journal*, *44*, 340-369.

Obradović, J., Long, J. D., Cutuli, J. J., Chi-Keung, C., Hinz, E., Heistad, D., & Masten, A. S. (2009). Academic achievement of homeless and highly mobile children in an urban school district: Longitudinal evidence on risk, growth, and resilience. *Development & Psychopathology*, *21*, 493-518.

Paschall, M. J., Ringwalt, C. L., & Flewelling, R. L. (2002). Explaining higher levels of alcohol use among working adolescents: An analysis of potential explanatory variables. *Journal of Studies on Alcohol*, *63*, 169-178.

Patrick, M., & Schulenberg, J. (2010). Alcohol use and heavy episodic drinking prevalence and predictors among national samples of American eighth- and tenth-grade students. *Journal of Studies on Alcohol & Drugs*, *71*, 41-45.

Paquin, J. D., Kivlighan, D., & Drogosz, L. M. (2013). If you get better, will I? An actor-partner analysis of the mutual influence of group therapy outcomes. *Journal of Counseling Psychology*, *60*, 171-179.

Paquin, J. D., Kivlighan, D., & Drogosz, L. M. (2014). Correction to Paquin et al. (2013). *Journal of Counseling Psychology*, *61*, iii-iv.

Perdue, N. H., Manzeske, D. P., & Estell, D. B. (2009). Early predictors of school engagement: Exploring the role of peer relationships. *Psychology in the Schools*, *46*, 1084-1097.

Pharris-Ciurej, N., Hirschman, C., & Willhoft, J. (2012). The 9th grade shock and the high school dropout crisis. *Social Science Research*, *41*, 709-730.

Pomerantz, E. M., Moorman, E. A., & Litwack, S. D. (2007). The how, whom, and why of parents' involvement in children's academic lives: More is not always better. *Review of Educational Research*, *77*, 373-410.

Powell, N. P., Boxmeyer, C. L., Baden, R., Stromeyer, S., Minney, J. A., Mushtaq, A., & Lochman, J. E. (2011). Assessing and treating aggression and conduct problems in schools: Implications from the Coping Power program. *Psychology in the Schools*, *48*, 233-242.

Prince-Embury, S. (2007). Resiliency Scales for Children and Adolescents: Profiles of personal strengths. San Antonio, TX: Harcourt Assessments.

Prince-Embury, S. (2011). Assessing personal resiliency in the context of school settings: Using the Resiliency Scales for Children and Adolescents. *Psychology in the Schools*, *48*, 672-685

Pullman, H., & Allik, J. (2008). Relations of academic and general self-esteem to school achievement. *Personality and Individual Differences*, *45*, 550-564.

Reddy, R., Rhodes, J. E., & Mulhall, P. (2003). The influence of teacher support on student adjustment in the middle school years: A latent growth curve study. *Development and Psychopathology*, *15*, 119-138.

Rhule, D. M. (2005). Take Care to Do No Harm: Harmful Interventions for Youth Problem Behavior. *Professional Psychology: Research and Practice*, *36*, 618-625.

Riley, A. (2012). Exploring the effects of the 'Seasons for Growth' intervention for pupils experiencing change and loss. *Educational and Child Psychology*, *29*, 38-53.

School Connect (n.d.). School Connect 2004-2005 Pilot Study. Retrieved from http://www.school-connect.net/pdf/3/S-C-Pilot-Study-Report.pdf

Shadish, W. R., Cook, T. D., & Campbell, D. T. (2002). *Experimental and quasi-experimental designs for generalized causal inference*. Wadsworth Cengage learning.

Shonk, S. M., & Cicchetti, D. (2001). Maltreatment, competency deficits, and risk for academic and behavioral maladjustment. *Developmental Psychology*, *37*, 3-17.

Sinclair, M. F., Christenson, S. L., Lehr, C. A., & Anderson, A. R. (2003). Facilitating student engagement: Lessons learned from Check & Connect longitudinal studies. *The California School Psychologist*, *8*, 29-42.

Sirin, S. R. (2005). Socioeconomic status and academic achievement: a meta-analytic review of research. *Review of Educational Research*, *75*, 417-453.

Smith, E. J. (2006). The strengths-based counseling model. *The Counseling Psychologist, 34*, 13-79.

Shochet, I. M., Dadds, M. R., Holland, D., Whitefield, K., Harnett, P. H., & Osgarby, S. M. (2001). The efficacy of a universal school-based program to prevent adolescent depression. *Journal of Clinical Child Psychology*, *30*, 303-315.

Shochet, I., Holland, D., & Whitefield, K. (1997). *Resourceful adolescent program: Group leader's manual*. Brisbane, Australia:Griffith University.

Stadler, C., Feifel, J., Rohrmann, S., Vermeiren, R., & Poustka, F. (2010). Peer-victimization and mental health problems in adolescents: Are parental and school support protective?. *Child Psychiatry and Human Development*, *41*, 371-386.

Stipek, D., & Gralinski, J. H. (1996). Children's beliefs about intelligence and school performance. *Journal of Educational Psychology*, *88*, 397-407.

Svetaz, M., Ireland, M., & Blum, R. (2000). Adolescents with learning disabilities: Risk and protective factors associated with emotional well-being: Findings from the National Longitudinal Study of Adolescent. *Journal of Adolescent Health*, *27*, 340-348.

Teo, A., Carlson, E., Mathieu, P. J., Egeland, B., & Sroufe, L. A. (1996). A prospective longitudinal study of psychosocial predictors of achievement. *Journal of School Psychology*, *34*, 285-306.

Trask-Tate, A., Cunningham, M., & Lang-DeGrange, L. (2010). The importance of family: The impact of social support on symptoms of psychological distress in African American girls. *Research in Human Development*, *7*, 164-182.

Valentine, C. J., DuBois, D. L., & Cooper, H. (2004). The relation between self-beliefs and academic achievement: A meta-analytic review. *Educational Psychologist, 39*, 111-133.

Von Secker, C. (2004). Science achievement in social contexts: Analysis from National Assessment of Educational Progress. *Journal of Educational Research*, *98*, 67.

Waller, M. A., Okamoto, S. K., Miles, B. W., & Hurdle, D. E. (2003). Resiliency factors related to substance use/resistance: Perceptions of Native adolescents of the Southwest. *Journal of Sociology and Social Welfare*, *30*, 79-94.

What Works Clearinghouse. (2014) WWC procedures and standards handbook version 3.0. *Washington, DC*.

Windle, G., Bennett, K., & Noyes, J. (2011). A methodological review of resilience measurement scales. *Health and Quality of Life Outcomes, 9,* 1-18.

Woodward, L. J., & Ferguesson, D. M. (2000). Childhood peer relationship problems and later risks of educational under-achievement and unemployment. *The Journal of Child Psychology and Psychiatry and Allied Disciplines, 41,* 191-201.

Yeager, D. S., & Dweck, C. S. (2012). Mindsets that promote resilience: When students believe that personal characteristics can be developed. *Educational Psychologist, 47,* 302-314.

Young, E. L., Sabbah, H. Y., Young, B. J., Reiser, M. L., & Richardson, M. J. (2010). Gender differences and similarities in a screening process for emotional and behavioral risks in secondary schools. *Journal of Emotional and Behavioral Disorders, 18,* 225-235.

Zhan, M. (2006). Assets, parental expectations and involvement, and children's educational performance. *Children and Youth Services Review, 28,* 961-975.