A social work intervention for children with emotional and behavioral disabilities

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A Social Work Intervention for Children

With Emotional and Behavioral Disabilities

By
Julienne Magnano

A Dissertation Submitted to the University at Albany, State University of New York

in Partial Fulfillment of the Requirements for

the Degree of Doctor of Philosophy

School of Social Welfare

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ABSTRACT

Partners in Success: A Social Work Intervention for Children with Emotional and Behavioral Disabilities

Partners in Success is a school social work intervention for children with emotional and behavioral disabilities who attend school in a separate site or segregated placement due to the severity of the behaviors associated with the disability. The purpose of the study was to improve school outcomes for children who have been removed from the mainstream. The key intervention strategy was the engagement of parents through joint goal setting with school social workers and teachers. Several decades of research show that when parents are invited to participate in the education of their children, children show improvement in grades and behaviors. Engaging the parents of children who have emotionally and behavioral disabilities has been challenging. Feelings of misunderstanding, mistrust and the rejection of both parents and children by schools, and a lack of understanding and accommodations for parents and children have been barriers to effective home-school partnerships.

A partial crossover design, delaying the intervention for the control group was used to test the intervention. Parents and teachers completed questionnaires at pretest, the time of crossover, and at posttest. The dependent variables, functional reading and math scores and behaviors were used to evaluate the effectiveness of the intervention.

Most children in both groups showed modest improvement. No significant differences between the experimental and control groups at posttest were found.
ACKNOWLEDGEMENTS

This dissertation would not have been possible without the help and support of many people. First, I would like to thank the parents and children from Rotterdam Academies I & II who participated in this project and placed their trust in the staff to work along with them in the many challenges of getting an education today. I also would like to thank my colleagues at the Rotterdam Academies, the social workers and teachers who worked tirelessly in their support of this project. I am especially thankful to Inge Jacob, my former director, and Barbara Nagler, my former superintendent for their approval and who helped move this research forward.

Second, I thank the members of my doctoral committee of Mary Mc McCarthy and Laura Bronstein, led by my doctoral chair, Ricky Fortune and who guided me through this very daunting process. I have a great appreciation of their commitment and support of my goal to complete a research project in a school program. Ricky’s expertise provided me with the knowledge, skills and direction needed to complete a study in a practice setting. I have long been blessed with wonderful social work mentors, starting many years ago as a MSW student when I met Maureen Didier and Don Franks, and continuing through my doctoral program.

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# TABLE OF CONTENTS

**ABSTRACT**  
ii

**ACKNOWLEDGEMENTS**  
iii

**LIST OF TABLES AND FIGURES**

**CHAPTER 1- Introduction and Literature Review**  
1

Statement of the Problem  
2

Literature Review  
5

The Identification, Characteristics and Correlates of Emotional and Behavioral Disabilities  
5

Characteristics and Correlates of Emotional and Behavioral Disabilities  
6

Conceptual Framework: Risk and Protective Factors  
7

Individual Characteristics and Correlates  
10

Family Characteristics and Correlates  
12

Educational Characteristics and Correlates  
15

Protective Factors, Preventive Interventions and the Social Development Model  
16

School Based Interventions  
20

Collaboration and Team Work in Schools  
23

Interventions with Students with Emotional and Behavioral Disabilities  
30
Implications for Research in the Field of Emotional and Behavioral Disabilities 33

**CHAPTER 2- Methodology** 36

Conceptual Model 36
Research Questions and Hypotheses 37
Research Design 39
Sampling Methods 41
Procedures 41
Data Sources 44
Measures 44

- Demographic Variables 44
- Descriptive Variables 45
- Dependent Variables 45
  - The Behavior Rating Index for Children (BRIC) 46
  - The Teachers Report Form (TRF) 48
  - Functional Reading and Math 49
- Independent Variable 50

Analytic Plan 60
Methodological Considerations 62

**CHAPTER 3-Results** 64

Description of the Sample 64
Comparison of Sample with National Sample 68
Dependent Variables 73
Reliability of Measures 73
Comparison of Experimental and Control Conditions 74

CHAPTER 4- Discussion of the Findings 96
Study Strengths 104
Study Limitations 105

CHAPTER 5-Implications 108
Implications for schools serving Children with emotional and Behavioral Disabilities 111
Implications for School Social Workers 114
Future Research 118
Conclusions 120

REFERENCES 121
APPENDICES 130
A. The Parent Recruitment Letter 132
B. The Parent Consent Form 134
C. The Script for the Child Assent 138
D. The Child Assent Form 140
E. The Teacher Consent Form 142
F. The Behavior Rating Index for Children 146
G. The Teacher Report Form 148
H. The intervention protocol 150
# LIST OF TABLES AND FIGURES

<table>
<thead>
<tr>
<th>Table</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Research Design</td>
<td>39</td>
<td></td>
</tr>
<tr>
<td>Data Sources and Database Variables</td>
<td>58</td>
<td></td>
</tr>
<tr>
<td>Table 3.1-Sample Description, Frequency Distribution of Categorical Variables</td>
<td>65</td>
<td></td>
</tr>
<tr>
<td>Table 3.2-Sample Description, Means, Standard Deviations at Pretest for Continuous Variables</td>
<td>67</td>
<td></td>
</tr>
<tr>
<td>Table 3.3-Chi Square Analyses for Categorical Demographic Variables for Experimental and Control Conditions at Time 1</td>
<td>70</td>
<td></td>
</tr>
<tr>
<td>Table 3.4-Chi Square Values for Number and Presence Of Psychiatric Diagnoses for Experimental and Control Conditions</td>
<td>72</td>
<td></td>
</tr>
</tbody>
</table>
Table 3.5- Teachers Rating Scale, Comparison of Experimental and Control Conditions at Time1  75

Table 3.6- Behavior Rating Index for Children, Comparison of Experimental and Control Conditions at Time1  76

Table 3.7- Teachers Report Form, Paired Sample T-Tests Experimental Condition, Time 1-Time-2, Time 1-Time 3  78

Table 3.8- Behavior Rating Index for Children, Paired Sample T-Tests Experimental Condition, Time 1-Time-2, Time 1-Time 3  79

Table 3.9- Teachers Report Form, Paired Sample T-Tests Control Condition, Time-2, Time 3  80

Table 3.10-Behavior Rating Index for Children, Paired Sample T-Tests, Control Condition, Time 2-Time3  81

Table 3.11-Teachers Report Form, Repeated Analysis of Variance, Comparison of F Values between Conditions  84
<table>
<thead>
<tr>
<th>Table</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.12</td>
<td>Behavior Rating Index for Children, Repeated Analysis Of Variance, Comparison of F Values Between Conditions</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>3.13</td>
<td>Teachers Report Form, Repeated Analysis Of Variance, Comparison of F Values Between Conditions, Time 2-Time 3</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>3.14</td>
<td>Behavior Rating Index for Children, Repeated Analysis of Variance, Comparison of F Values between Conditions, Time 2-Time 3</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>3.15</td>
<td>Teachers Report Form, Repeated Analysis Of Variance, Comparison of F Values between Conditions, Time 1-Time 3</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>3.16</td>
<td>Behavior Rating Index for Children, Repeated Analysis of Variance, Comparison of F Values between Conditions, Time 2-Time 3</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>3.17</td>
<td>Functional Reading and Math, Repeated</td>
</tr>
</tbody>
</table>
Analysis of Variance between Conditions, Time1-Time 3
CHAPTER 1

Introduction and Literature Review

Introduction

The problem of educating children with emotional and behavioral disabilities is of national importance. This population of students has continued to show very poor behavior and academic outcomes in three decades of studies (Bradley, Doolittle, & Bartolotta, 2008; Bradley, Henderson, & Monefore, 2004; Hayling, Cook, Gresham, State, & Kern, 2008). The No Child Left Behind Act (NCLB), 2001 and the reauthorization of the Individuals with Disabilities Education Act (2004) place a new focus on the educational competence of children with emotional and behavioral disabilities. The current study aimed to improve both academic and behavioral outcomes through a school based intervention, Partners in Success. The intervention used two key features of the Task Centered Model (Reid & Epstein, 1972; Reid, Epstein, Brown, Tolson, & Rooney, 1980), setting school goals with parents and case management. The rationale for the intervention is that students with this level of disability require the support and cooperation of their parents and the services of multiple agencies (Bradley, et al., 2004; Brooks, 2006) to achieve academic success and complete high school. There is a growing body of research showing the most promising school-based interventions reach beyond the classroom to families and peers (Hoagwood, Burns, Kiser, Ringeison, & Schoenwald, 2001) providing a rationale for collaborative practices. Research in the areas of prevention, parental involvement in schools, serious emotional disturbance, and evidence based practices in schools has
been reviewed for this study. The population of children who have emotional and behavioral disabilities share many characteristics and an etiology of the children served by early intervention services, mental health and juvenile justice services. These fields of research have contributed to the conceptualization of the problem and intervention.

**Statement of the Problem**

There is agreement that the problem of helping children with emotional and behavioral disabilities reach a level of academic competence and control over their behaviors so they may successfully complete high school is a national concern. Federal initiatives to address this issue began with the Education for All Handicapped Children in 1975, the reauthorization of the Individuals with Disabilities Act (IDEA) 2004, and the No Child Left Behind Act. Following this legislation, national data has been collected and studied to address this problem by the Special Education Elementary Longitudinal Study (SEELS) and the National Longitudinal Transitional Study 2 (NLST-2) (Bradley, et al., 2004).

Failure to educate students with emotional and behavioral disabilities exacts an enormous toll on each level of society starting with the individual and family, and extending to the school, and the community. Understanding the underlying causes of school failure for children with emotional and behavioral disabilities is fostered by examining how families, schools and society respond to the challenges these children face and present. This study evaluated an intervention intended to increase the engagement of parents in the school lives of their children with emotional and
behavioral disabilities and evaluated whether or not behaviors and grades improve when parents are more involved. This research is important because longitudinal studies have found that children with emotional and behavioral disabilities left untreated present problems that persist over time and often with increasing severity. The association between exposure to early risk factors without effective intervention to later aggression and academic failure has been made by researchers in the areas of prevention, juvenile delinquency and emotional disabilities (Brame, Nagin, & Tremblay, 2001; Hawkins, Catalano, & Brewer, 1995; Young, Merchant, & Wilder, 2003). The significance of the parental role in the education of children with an emotional and behavioral disability was studied because children are socialized to respond to school within the context of his or her experience in the family. There is a great degree of inter-relatedness between lack of educational success for these children and the demographic and social characteristics of their families (Greenbaum & Dedrick, 1996).

Given that more children are entering school with behaviors that identify them at risk for an emotional and behavioral disability, possibly as a result of societal trends over the last several decades where aggression is given a degree of acceptance in solving one’s problems (Sameroff & Gutman, 2003), emotional and behavioral disabilities is becoming the fastest growing category of disability (Malmgren & Meisel, 2004; Mooney, Epstein, & Reid, 2003; Wagner & Davis, 2006; Wagner, Kutash, & Epstein, 2005). The lack of success in helping children with an emotional and behavioral disability develop academic competencies presents short and long term problems. In the immediate situation, this population of children interferes in the
learning of other children, disrupts teachers and class instruction, and often demonstrates aggressive and unsafe behaviors in schools. Long term, they have the lowest high school completion rate of other groups of students with disabilities, have poor employment outcomes, more likely to become involved with juvenile justice system, more likely to become involved in substance abuse, and have more mental health issues (Mooney et al., 2003; Reinke & Herman, 2002; Wagner et al., 2005).

Recently, meeting the challenges of educating children with emotional and behavioral disabilities has taken on national importance through initiatives and legislation such as No Child Left Behind (NCLB) and the reauthorization of Individuals with Disabilities Act (IDEA) (Fleming, Haggerty, Catalano, Harachi, Mazza, & Gruman, 2005).

Key areas of the literature have been reviewed as a foundation for a dissertation in working with children with emotional and behavioral disabilities by answering the following research question:

Do children placed in segregated special education programs with emotional and behavioral disability have improved outcomes when parents are involved in their children’s school program?

This problem reaches across multiple domains. There is an impressive body of research about etiology, risk and protective factors, individual, family and community characteristics associated with emotional and behavioral disabilities, and short and long term outcomes without effective intervention. At the same time, there is a lack of research focused on children with emotional and behavioral disabilities served in special education programs (Wagner et al., 2005; Wagner & Davis, 2006). From what
has been studied, it is clear that schools are ill equipped to meet this challenge in isolation and making progress may involve a synthesis of the work of multiple disciplines.

The Identification, Characteristics and Correlates of Emotional and Behavioral Disabilities

The problem of educating children with this disability is well established but questions about how to serve them may begin with how we identify children with this disability. The definition of emotional and behavioral disabilities under IDEA is:

“inability to learn unexplained by intellectual, sensory or health reasons; inability to develop satisfactory interpersonal relationships with peers or teachers; inappropriate behavior or feelings under normal circumstances; a generally pervasive mood of unhappiness or depression; and the tendency of development of physical symptoms or fears associated with school” (Regulations of the Commission of Education, Part 200.1 (zz)(4).

The definition has been criticized because it lacks grounding “on the science of a mental health assessment” (“Failing to Qualify,” 2003). Without such grounding interpretations of the definition may differ depending on the state or locality. Delayed identification and intervention, two conditions associated with poor outcomes for children with emotional and behavioral disabilities occur as a result (Forness & Kavale, 2000). Since children with this disability engage in rule breaking, anti-social and aggressive behaviors, they may be treated as school discipline problems and subjected to punitive measures rather than being provided needed services (Forness, Kavale, MacMillian, & Asarnow, 1996). Despite recent federal legislation placing an emphasis
on timely and accurate identification, providing appropriate intervention rather than punishment and consequences for serious behavior problems may come into conflict with other important policies such as “zero tolerance and safe schools” (Failing to Qualify, 2003; Forness et al., 1996). Correct and timely identification are critical to children receiving effective educational services (Failing to Qualify, 2003; Duncan, Forness, & Hartsough, 1995; Forness & Kavale, 2000). Children with emotional and behavioral disabilities are the oldest of any disability group at the time special education services were initiated despite demonstrating troubling behaviors at a very early age (Hayling et al., 2008). The mean age of identification of eligibility to receive services is 10.2 years, thus making remediation more difficult (Malmgren & Meisel, 2004).

**Characteristics and Correlates of Emotional and Behavioral Disabilities**

To improve academic outcomes for children with emotional and behavioral disabilities understanding the characteristics of the disability and how they impact learning is critical. In developing a framework for the prevention of school problems, it may be helpful to first look at the characteristics of the children who have been identified with emotional and behavioral disabilities to understand who they are. Secondly, an examination of the context in which the risk factors correlated with the disability and the protective factors associated with improved school outcomes will inform future interventions.
A Conceptual Framework: Risk and Protective Factors

The qualities of the social environment of the child are correlates of mental health and child well being. The poorer quality of children's environments is associated with the increase in childhood behavior and emotional problems (Sameroff & Gutman, 2003). Poverty and diminishing family resources prevent families from adequately coping with the complex problems which may act as barriers to the development of child competencies. The research on risk and resilience has identified multiple contributors to childhood problems across the domains of the social environment. The environmental domains identified in several longitudinal studies are: family processes (effectiveness of discipline, family climate, parent investment), parental characteristics (education, efficacy, mental health), family structure (marital status, employment status, management of community which includes formal and informal social networks, involvement in institutions), peers (pro-social or antisocial), and community (socioeconomic status of the community, community violence, problems, climate of the schools) (Sameroff & Gutman, 2003). Risk and protective factors are present at each of the individual, family school and community level. Individual risk factors for children are alienation and rebelliousness, association with peers engaged in delinquency, favorable attitudes toward delinquency, early involvement in antisocial behavior and alcohol use (Brewer et al., 1995). School related risk factors are early antisocial behavior, academic failure, and a lack of engagement or commitment to school (Brewer et al., 1995). Researchers examining single risk factors found that risks rarely occur
alone and more often tend to cluster. Children often experience re-occurring stressors, or risks that occur in clusters that are multi-systemic in nature. If left without intervention, the conditions will worsen (Fraser & Galinsky, 1997; Sameroff & Gutman, 2003). After establishing empirical support for childhood risks or stressors, research then focused on the question of how many co-occurring risk factors led to the development of social and emotional problems and the degree that they compromised the child's ability to develop social and academic competencies. In analyses of multiple risk factors, it is has been found that a single environmental risk factor does not increase the probability of an emotional and behavioral disability, but the presence of a constellation of risk, or the strength of the cumulating stressors that contribute to increased behavior problems (Garmezy, 1994).

There is a growing body of research supporting that the interrelationship among biology, temperament, cognition and environment is significant in predicting whether or not a child in one set of circumstances develops an emotional and behavioral disorder and another does not. Children who have been physically abused are rated more aggressive and oppositional by their parents and their teachers than non-abused children (Kolko & Swensen, 2002). Also, children who are aggressive and oppositional are at increased risk of being abused (Malmgren & Meisel, 2004). Underlying personality traits such as an aggressive temperament have a negative impact on the child’s ability to develop relationships with others. They cause a reciprocal effect in the child’s social environment. For example, a child’s lack of responsiveness to the authority of parents, or school may cause feelings that their efforts are in vain and therefore back off. This
coercive spiral (Gerten, 2002,) may be viewed as permissiveness or a failure to respond on the part of the parents or the educational system by providing appropriate feedback and control, and therefore contributing to more antisocial behavior (Gerten, 2002; Reinke & Herman, 2002). Children who possess a difficult temperament and who are exposed to risk factors early on that support the development of antisocial attitudes and externalized behaviors such as provoking others, bullying others enter school with an established behavior pattern (Walker & Sprague, 1999). When these children enter school, they are reinforced for the same coercive interaction style with teachers as experienced with parents. Teachers find that the social interactions in their classes are dominated by this aggressive style and they respond by focusing on negative behaviors, which unintentionally produce more negative and antisocial behavior (Reinke & Herman, 2002).

Longitudinal research using the framework of risk has found the following factors to be predictive of childhood behavior and school problems: the arrest of a parent, a family history of child protective services involvement, one or more family transitions including death, divorce, trauma, family upheaval, placement of a child special education services, and an early history of aggression or antisocial behavior. A combination of any three risk factors places a child at elevated risk (Walker & Sprague, 1999; Sameroff & Gutman, 2003). These results are consistent with the groupings of risk factors in a study using cluster analysis where the parents of children who have been diagnosed with a mental illness were asked if their child had experienced any of
the following: was the child a victim of sexual abuse, used alcohol or drugs, attempted
suicide, or was perpetrator of sexual abuse (Fields & Ogles, 2002).

Since emotional and behavior problems rarely are the result of exposure to one
causal factor or risk factor in isolation, it is important to understand the interrelationship
of factors (Young et al., 2003). Through a review of the research, these authors have
developed a framework of individual, family, school and community characteristics
resulting from risk and protective factors identified (Young et al., 2003).

Evidence of multiple, overlapping factors in various predictor domains having
an influence at different developmental stages contribute to the behavior, emotional and
social problems of children and adolescents (Eamon & Altshuler, 2004; Huang,
Kosterman, Catalano, Hawkins, & Abbott, 2001; Mann & Reynolds, 2006; Murray,
2003; Walker & Sprague, 1999). Early anti-social behavior, individual child attributes
such as gender and the social attributes of the child and the family such as race and
socioeconomic factors are predictors of a high incidence disability (Murray, 2003).

The following discussion of characteristics and correlates is presented within the
above framework of interacting risk and protective factors.

**Individual Characteristics and Correlates**

Individual characteristics resulting from risk factors for children with emotional
and behavioral disabilities exist in cognitive, social and communication domains and
may be manifested in: non-compliant behaviors to adults, aggressive behavior with
peers including teasing and bullying, and disruptive behaviors in classes. Emotional
and mental health characteristics may include: impulsive behavior, nervousness and
anxiety, easily upset by demands of teachers and parents, inability to concentrate on
tasks, and fearful of trying new tasks. Social characteristics include: inability to make
and keep friends, difficulty in correctly interpreting social cues; verbally and physically
aggressive behaviors with others. Communication characteristics include language deficits and social skills deficits (Young et al., 2003).

Earlier studies have identified that certain demographic characteristics are correlated with emotional and behavioral disabilities. Children who have been identified with this disability are more likely to be male, in a racial or ethnic minority, have a mental illness and live in poverty (Wagner et al., 2005a). Of the children identified with this disability, 75.1% are male. However, females with high incidence disabilities such as an emotional and behavioral disability have an increased probability of poor post-school outcomes due to an interaction effect (Murray, 2003).

Most children with this disability are white, at 70.9%, followed by African American at 21.6%. However, African-American children are more likely to be identified as emotional and behavioral disabled than any other ethnic minority and half again as likely as White students (Wagner et al., 2005a). The largest age group cluster is twelve to fourteen years at 39.8%, followed as compared to ages eight to eleven at 24.4% and fifteen to eighteen at 35.8%.

Behavior and social characteristics have also been found to predict identification as emotionally and behaviorally disabled. Children identified with an emotional and behavioral disability often have relationship problems and aggression, and of the children who are aggressive, those who demonstrate early onset physical aggression are more likely to demonstrate adolescent high-level physical aggression (Brame et al., 2001; Lane, Carter, Pierson, & Glaeser, 2006). Children with emotional and behavioral
disabilities experience more rejection by peers, drug abuse, clinical depression, delinquency, and lower overall competency scores than students with other learning disabilities and non disabled peers (Conroy & Brown, 2004; Walker & Sprague, 1999).

Many of these children have been found to have been diagnosed with Attention Deficit Hyperactivity Disorder (ADHD), bi-polar disorder, conduct disorder, depression, Post Traumatic Stress Disorder (PTSD) and schizophrenia, or other neurological disorders under DSM-IVR. No definitive relationship has been found between individual mental health diagnoses and the specific characteristics of emotional and behavioral disabilities (Duncan, 1995; Greenbaum & Dedrick, 1996). The most prevalent co-occurring DSM diagnosis with the educational classification of emotional and behavioral disability was conduct disorder at 66.9%, followed by anxiety disorder at 41.0%, depressive disorder at 18.5%, attention deficit disorder at 11.7%, schizophrenia at 4.7%, and 41% were found to have two or more diagnoses (Greenbaum & Dedrick, 1996).

**Family Characteristics and Correlates**

The etiology of emotional disturbance may include the following key family risk factors: child abuse or neglect, early trauma, parental alcohol or substance abuse, and chronic poverty; the same conditions identified as risk factors in the literature on resilience. Low levels of parental participation in the care of their children are associated with child behavior problems (Mann & Reynolds, 2006). Researchers have identified the pathway of withdrawn and aggressive behavior in young children to
internalizing and externalizing behaviors in school age children, deviant peer associations, social rejection and isolation, and academic failure in adolescence; and underemployment, delinquency, drug abuse, and psychiatric disorders in late adolescence and young adulthood (Forness et al., 1996; Walker & Sprague, 1999).

Family characteristics may include stressors such as poverty, alcohol and substance abuse, domestic violence, poor health and mental health, and child abuse. Family quarrels, lack of rules and expectations for family members, inconsistent and coercive parenting all has been found in other studies (Young et al., 2003).

A review of the research on emotional and behavioral disabilities shows that the most prevalent characteristics of the children who meet the criteria for the disability live in poverty or are in the ethnic minority. These are two of the five conditions identified as educational disadvantage by Gary Natriello and that are correlated with the other three: limited English proficiency, single parent family status, and poorly educated mothers (Fritzberg, 2001). However, the relationship between poverty and ethnic status is confounded by the other conditions associated with educational disadvantage.

The interrelationship among emotional and behavioral disabilities, mental illness, race and poverty is complicated. More poor children are in the ethnic minority, live in single parent homes and have a mental illness (Wagner et al., 2005a). However, 54.1% of students with emotional and behavioral disabilities live with two biological parents and 33.8% live in one parent homes. Not all studies have found a significant relationship between poverty and emotional and behavioral disabilities (Gyamfi, 2004). In efforts to better understand the association between poverty and
emotional and behavioral disabilities, Gyamfi (2004) evaluated the effects of persistent poverty (lasting four years or more) and recent poverty. It was found that children who are reared in persistent poverty display internalizing behaviors such as anxiety, depression and withdrawal, while children living in current poverty show more externalizing behaviors such as aggression and acting out (Gyamfi, 2004). Socio-economic status, identified as a structural strain factor leading to school failure has both a direct and indirect relationship (Newcomb, Abbott, Catalano, Hawkins, Battin-Petterson, & Hill, 2002). Low socio-economic status limits early childhood educational and health opportunities for children. It is also associated with engaging in deviant behavior (Newcomb et al., 2002; Catalano, Berglund, Ryan, Lonczak, & Hawkins, 2004). Socioeconomic level is the best predictor of academic performance in preschool children. Once in elementary school, a child's academic performance is a better predictor, and retention at any grade is correlated with unfavorable academic, personal and social outcomes (Malmgren & Meisel, 2004). As the child gets older and accumulates negative school experiences, the losses are greater. The literature does not identify a single, clear path in the development of emotional disturbance, yet, it provides substantial evidence linking multiple environmental factors to emotional and behavioral disabilities (Conroy & Brown, 2004; Farmer & Farmer, 2001; Farmer, Farmer, & Gut, 1999; Fields & Ogles, 2002; Walker & Sprague, 1999).

Other family risk factors that are also associated with poverty are parental involvement with the police (18%) and parental issues with substance abuse (29.3%).
Their families' histories include 25.5% who have one or the other parent with emotional-behavior problems (Bryant & Rivard, 1995).

Any of these factors alone are associated with an increased probability for emotional and behavioral problems than for children who are not exposed to the risk factor, but when combined, the effects have been described by the authors as multiplicative (Young et al., 2003).

**Educational Characteristics and Correlates**

School characteristics contributing to increased risk of the disorder include: unclear expectations, rules and standards for adults and children; and a lack of flexibility in accommodating individual differences. A lack of effective behavior management policies; inconsistent use of positive reinforcement and consequences contribute to increased risk (Young et al., 2003).

The educational characteristics of children with emotional and behavioral disabilities are discouraging in both the short and long term. They are more likely to lag behind their peers with skill deficits in both math (84%) and reading (46.7%) (Lane et al., 2006; Wagner & Davis, 2006). When the development of reading skills of children who have been identified as learning disabled (LD) has been compared to children with an emotional and behavioral disability, children who are learning disabled progressed in reading over time where the skill levels of the children with an emotional and behavioral disability remained stable (Lane et al., 2006). An examination of disciplinary practices shows a disproportionate percentage (44%) of adolescents with emotional or behavior disorder have been suspended or expelled from school (“Failing to Qualify”, 2003; Achilles, McLaughlin, & Croninger, 2007). Other authors have referred to the gap between students who misbehave, are disruptive or do not learn at an
expected rate as a “mismatch between the structure of schools and the social, cultural and economic backgrounds” (Deschones, Cuban, & Tyack, 2001, p.527). These characteristics contribute to the low graduation rates for children with emotional and behavioral disorders.

The post school characteristics are also discouraging. Longitudinal and transitional research shows that 35% of children with emotional and behavioral disabilities who have dropped out of school have been arrested within two years of leaving school (“Failing to Qualify”, 2003; Wagner & Davis, 2006).

Cultural conditions contributing to increased risk factors are poverty; economic status; disadvantaged neighborhood, crime, gang affiliations; and the absence of a positive peer groups for families (Young et al., 2003).

Not all children who have been exposed to adverse environments have long-term negative outcomes. Researchers have established that of children reared in adverse circumstances, one third to two thirds have successfully adapted, while for others, early risk factors were antecedents for adult mental illness, substance abuse, inability to maintain stable employment and crime (Oswald, Johnson, & Howard, 2003; Zimmerman & Arunkumar, 1994).

**Protective Factors and Prevention Interventions and the Social Development Model**

Prevention research seeks to support causal arguments by showing that a targeted risk factor has been reduced or a protective factor has been strengthened
through intervention (Brewer et al., 1995). Three classes of protective factors have been identified: individual factors, factors contributing to the development of social bonding, and factors related to healthy beliefs and clear standards for behavior (Brewer et al, 1995). Quality prevention trials guided by theory identify variations in developmental trajectories through the collection of data over time, informing original theory and the design of interventions (Maggs & Schulenberg, 2001). The following discussion about interventions is a synthesis of what has been learned from the prevention, risk and resilience research and will be used to inform a school social work intervention.

Resiliency is fostered by the presence of protective variables and compensatory experiences (Caprara & Rutter, 1995). Protective variables are hypothesized to influence behavior indirectly by mediating risk (Catalano & Hawkins, 1996). Environmental conditions favorable to child well-being are families that provide warmth, affection, and clear-cut structure and limits (Brooks, 1994). The formation of early attachments, acquisition of age appropriate competencies, the creation of settings that facilitate positive outcomes, the development of skills to cope with stressors, and empowerment have been identified as pathways to wellness by Cowen (2002), (Barrera & Prelow, 2000; Cowen, 2000). Outside the family, the educational setting is “the single most important social context for child development” (Minnard, 2001, p.237) due to its capacity to provide the nurturance and environment qualities for the development of resilience. High functioning schools that foster resilience and positive youth development offer systematic school discipline policies, decrease student frustration,
provide pleasant working conditions for staff and students, and have good teacher-
student relationships, characteristics consistent with family well-being (Bellamy,

The social development model conceptualizes the influences of risk and
protective factors or "empirical predictors" in mediating developmental relationships
(Huang et al., 2001, p.77; Catalano & Hawkins, 1996). This model explains the causal
and mediating factors that through attachment and bonding, predict behavior and uses a
prevention approach to reduce identified risk factors (Brewer et al., 1995; Catalano &
Hawkins, 1996; Huang et al., 2001).

Control theory, social learning theory, and differential association theory are
synthesized in this model to predict anti-social behavior. Differential association is the
process where behaviors are learned through association. If a child communicates and
interacts with those who view anti-social behaviors as positive, that child is more likely
to engage in delinquent and antisocial behaviors. Social learning theory bases learning
on rewards and punishments. It is hypothesized that if the context or group is
predominantly delinquent, then delinquent behavior is reinforced. Social control
theory is based on the premise that weak social bonds with school and family increase
the probability of bonding with anti-social peers and activities. Strong social bonds are
formed by the elements of attachment, positive emotional feelings toward others,
commitment, and acceptance of the moral order (Hawkins, Guo, Hill, Battin-Peterson,
& Abbott, 2001; Huang et al., 2001; Hawkins, Catalano, Morrison, O'Donnell, & Day,
1992). In the absence of strong bonds with pro-social groups and belief in society’s
morals which inhibit deviant behavior, there is an increased chance deviant behaviors will occur. The socialization of children occurs through the following constructs:

"perceived opportunities for involvement in interactions and activities with others, the degree of involvement and interaction, the skills to participate in these involvements and interactions, and the reinforcement they perceive as forthcoming from performance in activities and interactions" (Catalano & Hawkins, 1996, p.156)

Recent advances in social development research stress consideration and flexibility in planning interventions. It is important to consider other variables in the social environment of the child such as peer affiliations, social status and social goals and their impact on problem maintenance (Farmer, et al., 1999; Hoagwood et al., 2001).

The synthesis of these three theories provides a strong rationale for inclusive models of intervention in contrast to models where students with disruptive behaviors receive intervention in settings separate from their non-disabled peers.

When students who present challenging behaviors are removed from the mainstream, they are regarded as different by their teachers and their peers, increasing their chances of becoming stigmatized while preventing them from receiving the benefits of positive social interactions in the natural school setting (Smith & Daunic, 2004; van Lier, Vitaro, Vuijk, & Crijnen, 2005). Given what we have learned about differential association theory, the perceived benefits of this practice are short sighted. The social development model hypothesizes that a parallel, bi-directional socialization process leads to the development of pro-social and anti-social behaviors, depending on the effect and strength of the risk factors and protective factors (Farmer & Farmer, 2001; Huang et al., 2001). The socialization process is comprised of four constructs:
opportunities for involvement in activities and interactions with others, the degree of involvement, the skills to participate in the interaction and involvement, and the reinforcement for activities or interactions resulting in a social bond. The presence of supports or risk factors determines whether positive or negative trajectories are fostered (Farmer, & Farmer, 2001).

This model provides a solid conceptual foundation for school based interventions to prevent the development of emotional and behavioral disabilities. The interactional processes occurring in schools and between schools and families can enhance protective factors through resilience promoting activities for all children. These activities are fostering strong bonds and caring teacher-student relationships, the development of social competence, the communication of high expectations for all children, and creating community and family partnerships (Brooks, 2006; Murray, 2003).

**School Based Interventions**

The increased emphasis on academic achievement for all students under the No Child Left Behind Act (2001) may discourage school administrators to invest time and resources in prevention programs to meet the social-emotional needs of children (Fleming et al., 2005). At the same time, population trends are that schools are becoming increasingly diverse with a greater demand for mental health services. There is an increased need for social workers in schools to provide services to behaviorally
disordered students and their families. The need for effective school-based interventions cannot be overstated.

School based interventions start with the organization, structure of the school, management of classroom, and the academic instructional strategies provided by “well prepared, competent and supportive educational professionals” (Bullock & Gable, 2006, p.11) to teach to children the skills needed to control and moderate their own behaviors (Bullock & Gable, 2006).

In an evaluation of review articles and meta analyses of classroom management strategies using fairly strong experimental designs conducted over several decades, the following promising practices have been found:

"reduction in class size for the early grades, using ungraded classes at the elementary level, using within class and between grade ability groupings, behavior techniques for classroom management, continuous progress instruction, cooperative learning tutoring, computer assisted instruction, diagnostic-prescriptive pullout strategies, and proactive classroom management, interactive teaching and cooperative learning " (Brewer, et al, p.73, 1995).

The same review reported the use of teacher aides and ability grouping have not proven to be effective in strengthening protective factors.

In an evaluation of behavior management strategies which focus on academic achievement and behaviors, findings indicate that there are varying degrees of effectiveness among programs.

Supervised and monitored activities have produced a decrease in aggression in specific contexts. Behavioral consultation models have positively impacted school vandalism at the elementary level. Special education placements have not been effective in reducing disruptive behaviors in the elementary setting, but have shown some effectiveness in supporting academic achievement at the secondary level (Brewer, et al., p.79, 1995).
In a review of positive youth development programs set in schools focused on building competencies used strategies that presented new information about coping, decision making, managing feelings and controlling anger, and opportunities to practice new skills. Most of the programs reviewed were multiyear programs and showed positive changes in behaviors (Catalano et al., 2004). While most behavior management programs had a demonstrated effectiveness in reducing risks, the authors note several methodological weaknesses. For example, in multi component interventions, it was not possible to identify the effects of specific components. In other studies, there may have been differences in implementation of the model, or differences in the recording of data. The authors recommend more rigorous experimental designs are needed to further test the effectiveness of these interventions.

Blueprints for Prevention (2004), a report prepared for the Office of Juvenile Justice and Delinquency prevention assessed the effectiveness of programs using the following criteria: evidence of deterrent effect with a strong research design, demonstration of sustained effect, and multiple site replications (Mihalic, Fagan, Irwin, Ballard, & Elliot, 2004). Programs that meet all criteria are selected as model programs; programs that meet the first are considered promising (Mihalic et al, 2004). The standard for school interventions is the criteria “of consistency of effects across replications with multiple measures from different sources” (Mihalic et al., 2004, p.8) since multiple site replications are not practical due to costs. The Office of Juvenile Justice and Delinquency Prevention identified the Promoting Alternative Thinking Strategies (PATHS), which is a curriculum based program for children in regular and
special education addressing social competencies and social problem social skills as a model program. The I Can Problem Solve, a social skills training program and The Preventive Treatment Program preventing anti-social behaviors in peers, and The Good Behavior Game (GBG) have been identified as promising programs (Mihalic et al., 2004).

The conceptual base for many behavior management programs is consistent with social learning theory. The use of consequences and rewards is used in reinforcing learning of competencies across the emotional, social, cognitive and moral domains of children of all abilities (Catalano et al., 2004). Supervised and monitored activities provide opportunities for children to practice new skills while receiving needed feedback from parents and professionals for skill acquisition.

**Collaboration, Team work and Social Work in Schools**

Social workers are integral members of the interdisciplinary education team. It is likely that the social worker is the most qualified person on the team to present the problems of a child within the context of the social environment, and to support an improved fit between the child and the environment. For example, social workers commonly address the broader social inequalities that prevent students from succeeding. Through staff development opportunities, collaboration and leadership, they increase the awareness of staff in schools of the discrepancies between school and the students who attend them. Social workers assume responsibility to help schools move away from viewing problems based within the individual student to the larger system (Deschenes et al., 2001). School-based interventions intend to increase
protective factors by intervening in the classroom climate, enhancing academic and social supports and establishing positive working relationships with families.

School-based social workers are often the primary providers of programs and services that directly link schools, parents and families in support of academic competence and mental health. High quality prevention services show that improvement in one domain, such as school can bolster improvements at home and in the community (Masten, 2003). Programs engaging families are focused on improving family bonding in addition to promoting competencies in children across settings. Parent training was used as a prevention strategy in the family bonding programs (Catalano et al., 2004).

The importance of including parents in any school based intervention for children with emotional and behavioral disabilities is well documented. There is considerable variation across studies as to what constitutes effective school-parent engagement, but overall, parental involvement is associated with improved behavior and grades (Barnard, 2004; Bowen, 1999; Shepard & Carlson, 2003). Epstein's framework provides guidance for the planning and implementing of services to engage parents (Barnard, 2004).

Studies showing promise for improved school-parent partnerships, especially in the early grades are numerous. Through the provision of educational and supportive services in a group of pre-school and elementary age students, parental involvement was associated with later high school completion rates. The more years teachers rated parental involvement as average or better were significantly correlated with more years
of high school completion (Barnard, 2004). In a study based on the work of Bronfenbrenner (1979) and Garbarino (1992), an intervention enhancing school success through home-learning activities demonstrated the two strongest predictors of learning are parental encouragement of reading and parent child discussions about school related topics (Bowen, 1999).

The reauthorization of the Individuals with Disabilities Act (IDEA) 2004 strengthened the role of families in the planning and implementing of educational services for children. The stigma of a child having an emotional and behavioral disturbance is often extended to the family, which is an obstacle to viewing the parent as an essential member of the education team (Osher & Osher, 2002). Many parents agree to plans and services developed by the educators or providers, fearful there are no other options, or the providers control the needed resources for their children. Parents report anxiety about not having the answers to their children's problems or fear of appearing uncaring and may present as passive (Lambie, 2000.) When parents are fearful of the school and its authority, their ability to bond with the school is undermined. A shift from the provider driven paradigm, which is focused on child or family deficits to a family driven paradigm that is focused child and family strengths is needed to establish true partnerships where families set their own goals for their children (Osher & Osher, 2002). The concept of the family driven paradigm is consistent with the underlying rationale for social control theory. Strong bonds to family and school are protective factors and mediate bonding to antisocial peer groups.
for both children and adults. The following collaborative models stress the importance of client self determination.

Partners for Success, a collaborative program development project between Smith College School for Social Work and the public schools of Springfield, Massachusetts, was developed to provide services to children who were not learning in schools due to severe behavior problems. The program operated in natural environments such as schools, providing individualized services to meet the needs of a culturally diverse population of children and offering a continuum of services within the schools and community (Sessions, Fanoli, Corwin & Miller, 2001). Findings from this project are that time spent on developing joint goals and objectives had a positive impact on consumers, moving the project out of the traditional office is valued by consumers, and full integration into the school environment positively impacted the school climate (Sessions, 2001).

A task centered case management model, which is a resource intensive intervention that has been used in schools, has a demonstrated effectiveness. This model links educational and social work services to prevent school failure. Collaboration among, teachers, social workers, parents, children, schools and community agencies allowed for addressing many of the problems associated with school failure (Reid et al., 1980; Reid & Bailey-Dempsey, 1995; Viggiani, Reid, Bailey- Dempsey, 2002). In the study by Viggiani, Reid, & Bailey-Dempsey, the intervention group was more effective than the comparison group in rates of attendance and specific problem behaviors (Viggiani et al., 2002). The limitations of the study
were it was conducted in one school, where the teachers in the experimental conditions may have been biased toward change, and the data collection relied on teacher record keeping.

Collaborative practices where the skills and training of social workers empower teachers are effective in implementing school-wide change (Bronstein & Abramson, 2003; Misha & Muskat, 2004; Gottlieb & Polirstok, 2005). Professional development programs pairing teachers and clinicians where clinicians provided support as teachers examined their management practices was effective in reducing behavioral and special education referrals and improving reading and math scores in three elementary schools. Teachers were empowered to meet the needs of students who present challenging behaviors by creating high approval, emotionally safe classrooms (Gottlieb & Polirstok, 2005). A limitation of this study was there were variations in the levels of implementation among schools and teachers. The school with the strongest implementation and gains were in a school where the principal was viewed as a respected colleague and leader (Gottlieb & Polirstok, 2005).

The studies of collaborative practices using teamwork with professionals and families are examples of preventive interventions using social control theory. The effects of the intervention are intended to improve the skills of parents to increase family and school bonding, and indirectly improve school outcomes for children. In a review of studies of Family Preservation Services (FPS), a multi-systemic model has been found to be a moderately effective treatment in averting placement in working with early adolescents referred for child behavior problems, truancy and conduct
problems (Reid & Bailey-Dempsey, 1995). Despite the finding of moderate effectiveness, the authors caution the results are extremely complex and sometimes contradictory (Fraser & Galinsky, 1997; Fortune & Proctor, 2001). Family Preservation Services typically provide the following: addressing problems by working in collaboration with families around problems, empowerment, crisis intervention, skill building, and various concrete services. This model has also been found to be effective in an inner city school populated by a largely Haitian enrollment (Bronstein & Kelly, 1998). In this qualitative study social work interns intervened by acting as mediators in home school problems. On a school-wide system level, the interns were able to influence change in the perceptions of the teacher and staff about the involvement of the Haitian parents (Bronstein, 1998). The Blueprints for Violence Prevention report has identified Functional Family (FFT) Therapy and Multisystemic Therapy as model programs. Fast Track, a program for children with severe and chronic conduct problems, Linking the Interest of Families and Teachers (LIFT), Brief-Strategic Therapy, And Prevention Intervention, a juvenile delinquency program have been identified as promising programs (Mihalic et al., 2004).

Other multi-systemic studies have been done with students who have been diagnosed with Oppositional Defiant Disorder (ODD) and conduct disorder, diagnosis under DSM-IVR that co-occur with emotional and behavioral disabilities. Working with students who have been diagnosed with conduct disorder requires an understanding of biology and neurology as well as the ecology of the social environment of the child due to the likelihood of co morbid psychiatric conditions such
as depression, anxiety, and psychosis (Gerten, 2002; Mackward & Bride, 2001). There is a need for multi-modal interventions comprised of working and contracting with the child or adolescent and parent, parent training, mobilizing the families’ social supports, crisis intervention, and working with the school to help parents and educators intervene when a child engages in disruptive behavior (Gerten, 2002; Mackward & Bride, 2001). Family preservation programs and other multi-systemic interventions are grounded in social control theory by strengthening family bonds through improved parenting skills, child adolescent behaviors. The most effective multisystem and multi-component interventions are long term and take place over several school years. These programs are described as individually focused as compared the following programs which target the school environment. The Bullying Prevention Program and The Midwestern Prevention Project, targeting early substance abuse have been identified as model programs. Project Northland, an alcohol prevention program for middle school students has been found to be a promising program (Mihalic et al., 2004).

Cognitive -behavioral interventions delivered in groups in schools have received support from educators, perhaps because the method is most like the curriculum based, process oriented instruction generally provided by teachers. It is understood by educators and less intimidating than other therapies. A universal prevention program targeting improved interpersonal problem solving skills has shown to be effective for both teachers and students. Fourth and fifth grade students showed they retained gains after five months, and equally important, the intervention was positive in influencing teacher perception of aggressive behaviors (Smith & Daunic, 2004).
Social skills training is regularly offered in school programs serving general education and special education students. The problem of generalizing learned skills to other settings limits the duration of the benefits of the intervention (Grizenko, Zappitelli, Langevin, Hyrch, El-Messide, Kamister, Pawliuk, & Stepanian, 2000; Hawkins et al., 1995). In a meta analysis of seventy-nine studies in 1987, only nine used follow up measures beyond three months (Grizenko et al., 2000). Both cognitive behavioral interventions have a conceptual base consistent with social learning theory by helping students think through about the consequences for their behavior and learn to make better choices. In the above study, the intervention also had an indirect effect of student and teacher bonding through the changing perceptions of behaviors by teachers.

**Interventions for Students with Emotional and Behavioral Disabilities**

Many researchers stress the importance that interventions designed to impact multiple levels of the child's social environment to mediate risk are needed. However, in an analysis of trends in intervention research in working with emotional and behavior disabilities between 1980-1999, a decline in the number of experimental studies published in professional journals has been identified (Clarke, Dunlap, & Sticher, 2002) While this is discouraging as the population of children with emotional and behavior disabilities is on the rise, two findings have promise. First, of the few studies of intervention research published, they are taking place in included general education rather than in segregated settings, and secondly, the number of studies using pre-intervention assessments such as functional behavioral analysis has increased.
Student referrals for functional behavior assessments made for off task and work avoidant behaviors that disrupt others have increased (Erickson, M.J., Stage, S.A., Nelson, J.R., 2006). These findings suggest a greater focus on antecedent conditions where problem behaviors are occurring, and strengthening environmental supports for students whose behaviors do not meet acceptable school standards.

Research in the area of school-based prevention shows that interventions that establish expectations and norms through teaching social competencies are effective (Mihalic et al., 2004). This is important because the expectations for children with emotional and behavioral disabilities must be consistent with the expectations for non-disabled children if they are to achieve success as adults.

Students with emotional and behavioral disabilities require a variety of programs to achieve academic competence. The following are characteristics of effective academic interventions identified by the literature:

- a structured teaching environment, including the provision of explicit, systematic, and highly interactive direct instruction delivered in learner-friendly memorable ways (Boudah, Lenz, Bulgren, Schumaker, & Deshler, 2000);

- independent learning strategies (Deshler, Ellis & Lenz, 1996);

- opportunities for peer mediated learning, including class-wide and reciprocal peer tutoring (King-Sears & Cummings, 1996; Wright, Cavanaugh, Sainato & Heward, 1995), as well as cooperative learning (Putnam, Spiegel & Bruininks, 1995); and

- teachers with strong repertoire of behavior management skills to decrease inappropriate behaviors and increase pro-social behaviors (Landrum et al., 2003: Walker, et al., 1998) (Wagner & Davis, 2006).

(Young, Merchant & Wilder (as cited in Allen-Meares & Fraser, 2003)
There is a concern that the quality of academic programs for children with emotional and behavioral disabilities is lacking as a result of placement in programs with reduced expectations for academic performance. In the absence of the above characteristics, children with emotional and behavioral disabilities may receive inferior instruction. Ineffective instruction and school programs contribute to increased risk.

Effective prevention efforts must address the highest priority risk factors by understanding the diversity of the population, unifying different segments of the service delivery system, and insuring that the interventions must be of duration that the full benefit of the intervention can be realized (Smith & Daunic, 2004). Efforts to reduce or remediate anti-social behaviors should occur not later than the fourth through sixth grades, and need to take place in integrated settings where children with behavior problems are placed with more typically behaving children (Smith & Daunic, 2004). The rationale for such practice is consistent with what we have learned from longitudinal studies, including the Social Development Model (Hawkins, Catalano, Morrison, O’Donnell, Abbott, & Day, 1992; Catalano & Hawkins, 1996).

In a meta analysis of school intervention for children with emotional and behavior disorders, reinforcement, cooperation, cognitive-behavior modification, and behavior consultation appear to be the most effective strategies. Children who participated in these interventions showed improvement almost one standard deviation more than the control group (Frey-George-Nichols, 2003). Behavioral interventions using group contingencies, self-management, and reinforcement techniques were more effective than interventions based on other theoretical orientations, with individual
counseling least effective (Frey-George-Nichols, 2003); (Hoagwood et al., 2001; Mihalic et al., 2004).

Underachievement, which co-occurs with delinquency, is one of the key characteristics of children who have an emotional and behavioral disability. In a review of fifty-five studies examining the association between underachievement and delinquency completed between 1975 and 2002, the following design flaws were found: missing demographic information about intellectual functioning, race and cultural background, and socioeconomic factors; threats to internal validity, inconsistent or inappropriate statistical analysis, a lack of treatment fidelity, and failure to report on the social validity of the intervention goals. The recommendations of the authors are: more studies with larger samples are needed, more research on females and minorities with emotional/behavior disorders, and more research done outside the special education classroom (Mooney et al., 2003).

**Implications for Research in the Field of Emotional and Behavioral Disabilities**

This examination of the literature provides a foundation for future research in working with children with emotional and behavioral disabilities and their families. What has been learned about risk and resiliency from prevention research provides a strong rationale for multisystem, early intervention to address serious behavior problems within our society. First, the review of the literature provides evidence that many of the children identified with an emotional and behavioral disability are the children who overtime become involved in delinquency, crime, drug abuse, dropping
out of school, violence, mental illness, inadequate parenting practices and underemployment; underscoring the need for research and interventions that go beyond the school to families and communities. Secondly, we continue to rely on models of intervention that are based on individual child and family deficits and often ignore the role of the educational environment in maintaining the problem behavior. The rationale for schools moving from an individual problem focus to a person-in-the-environment perspective allows for systematically providing interventions for healthy development for all children. By examining what the environment needs to provide to promote academic success for each child will foster maintaining children in inclusive settings with individualized supports. Longitudinal studies have clearly articulated multiple paths to school failure and the need for early intervention. The process of identifying, labeling and placing children who fail in specific categories of disability before providing services reduces the probability of a successful school outcome, stressing the need for pre-referral interventions. Once the process of removal from a mainstream setting is set in motion, there is increased opportunity for parents and children to experience rejection, hopelessness and failure, widening the gap between families and schools. When children are removed from mainstream educational settings they are isolated from opportunities that foster social, academic and behavioral competencies through affiliation with peers of all abilities. The reauthorization of IDEA in 2004 has a “response to intervention” requirement for providing and documenting intervention efforts prior to making restrictive placements. This stresses the importance of maintaining the least restrictive educational environment (LRE).
Thirdly, as the body of literature supporting inclusive education settings for children with emotional and behavioral disabilities increases, there continues be a population of children in restrictive settings who can benefit from what can be learned from rigorous studies about how to successfully transition back toward the mainstream. These studies should take place in both special education and general education settings to determine what is needed for a successful return to a less restrictive environment. Researchers in the field of education and mental health agree that the dimensions of behavior and academics, and the correlation between them need further study (Bradley et al., 2004).

In addition, more research is needed about how to implement effective practices, what the barriers to implementation are, and how to and sustain effective practices in schools (Wagner & Davis, 2006). Given all that we know about prevention, schools continue to lag behind other systems in the implementation of effective interventions for all.

The identification of the characteristics of effective prevention programs has been an important area of mental health and education research, but there continue to be gaps in what we need to know. The literature is lacking studies showing what interventions are effective in maintaining children with high incidence disabilities such as an emotional and behavioral disability in their placements in the regular education settings. There is also a need to identify how children who are placed in segregated settings due to high incidence disabilities differ from those who are maintained in general school settings. This study calls for an examination of the characteristics of the schools as well as the characteristics of the children.
CHAPTER 2

The Methodology Chapter

This chapter will outline the research methodology and the analytic plan that was used to answer the following research questions and test the research hypotheses.

Conceptual Model

The purpose of the conceptual model is to show that the literature was used to inform the development of the intervention by improving and extending program activities. The intervention added a goal setting and collaborative case management components to the program activities. The goal setting component provided a focus and structure for the work that was done by the school and in collaboration with the community agencies while improving school-parent relationships. The intervention intended to increase academic skills and improve behaviors through these two components. The rationale is that as parents join with schools in a partnership of mutual respect (Shepard and Carlson, 2003) children demonstrate improved school outcomes. The experimental condition received the intervention one school quarter (10 weeks) before the experimental condition. It was hypothesized that the participants in the experimental condition will show greater improvement than the crossover condition.
Research Questions and Hypotheses

1. Is Partners in Success, a school-based case management intervention with articulated behavioral and academic goals and strategies associated with an improvement in grades and a reduction in anti-social and aggressive behaviors for children with emotional and behavior disabilities (emotional and behavioral disabilities) placed in segregated placements?

Hypothesis 1a: Children with emotional and behavioral disabilities who participate in a case management school-based intervention will show a greater improvement in behaviors on the Teacher Report Form (TRF) than children who do not participate.

Hypothesis 1b: Children with emotional and behavioral disabilities who participate in a case management model school-based intervention will show a greater improvement in behaviors on the summated scale of the TRF than children who do not participate.

Hypothesis 1c: Children with emotional and behavioral disabilities who participate in a case management school-based intervention will show a greater improvement in behaviors on the externalizing subscale than children who do not participate.

Hypothesis 1d: Children with emotional and behavioral disabilities who participate in a case management model school-based intervention will show a
greater improvement in behaviors on the Behavior Rating Index for Children (BRIC) than children who do not participate.

Hypothesis 1e: Children with emotional and behavioral disabilities who participate in a case management school based intervention will show a greater improvement in the summated scale of the BRIC than children who do not participate.

Hypothesis 1f: Children with emotional and behavioral disabilities who participate in a case management school based intervention will show a greater improvement the externalizing subscale of the BRIC than those who do not participate.

Hypothesis 1g: Children with emotional and behavioral disabilities who participate in a case management school based intervention will show a greater improvement in functional math skills than those who do not participate.

Hypothesis 1h: Children with emotional and behavioral disabilities who participate in a case management school based intervention will show a greater improvement in functional reading skills than those who do not participate.
Research Design

Time 1

Experiment -al Group

Control Group

Time 2

Experiment -al Group

Control Group

Time 3

Experiment -al Group

Control Group
Research Design

A quasi-experimental, partial cross-over design using prospective data collection including a pretest and two follow up data collection points was used to test the hypotheses. The partial cross-over research design was chosen to allow for all students to benefit from the intervention while using the cross-over condition as a comparison or control group in an analysis of the effects of the intervention (Fortune & Reid, 1999). The study compared behavior and academic gains in a population of special education students with emotional and behavioral disabilities in segregated site academic placements also referred to as self-contained schools. The independent variable was a school based social work intervention employing two features of the Task Centered Model-client chosen goals established in partnerships with the educational team, and case management. The dependent variables were functional STAR Reading and STAR Literacy, and STAR Math scores; and two behavioral measures, the Teachers Report Form (TRF) and the Behavioral Rating Index for Children (BRIC). An equivalent group design was used. The study is titled Partners in Success to reflect the partnerships between teachers and parents in improving school outcomes for children with emotional and behavioral disabilities. The study took place during the 2005-2006 school year.
The Sampling Design

The sampling frame consisted of students attending the two segregated special education placement sites for children operated by Capital Region Board of Cooperative Educational Services, Rotterdam I & II, with emotional and behavioral disabilities during school year 2005-2006: an elementary setting serving kindergarten through fifth grade and a middle school setting serving the sixth through the eighth grades. The total enrollment of both sites was sixty students. Children that were classified with other than emotional and behavioral disabilities as a primary educational classification such as autism were excluded. Although there were several students enrolled who had been diagnosed with Asperger’s Syndrome or Pervasive Developmental Disability (PDD), also autism spectrum disorders, and emotional and behavioral disabilities that were included in the study, the students with Autism as a primary disabling condition were excluded because they presented different communication and behavioral challenges, and as a result, required different interventions. Therefore, a total of six children and their parents were excluded prior to recruitment. Forty parents were recruited comprising a total N = 40: twenty-two parents from the elementary school and eighteen parents from the middle school. Once recruitment was completed, the participants were randomly assigned to the experimental or crossover condition.

Procedures

Children with severe emotional and behavioral disabilities and their parents often have few options or choices regarding educational placement. The development
of histories of school failures and behavior problems are correlated with accompanying vulnerabilities and risk factors. Therefore, the Institutional Review Board (IRB) had strict requirements for obtaining approval to complete the study and obtaining informed consent to protect the participants. Letters recruiting parents detailing the purpose of the study, assuring that participation was voluntary, and that if parents chose not to participate, their child would not receive an inferior service were prepared and distributed. Procedures describing how the confidentiality of the students was maintained by filing all identifying information at a separate location at the district offices were also included. An information session describing the study was held and recruitment letters were first distributed at an open house at the elementary setting in October of 2005. Recruitment letters were mailed to parents that were not present. Parents of the students at the middle school setting were also mailed the recruitment letters since the faculty at the middle school setting chose not to have an open house. School social workers also presented recruitment letters at home visits and when parents visited the program sites. The school social workers involved in recruitment, data collection and participation in the intervention completed the required training for research with human subjects. Parents who did not respond to the mailing were also contacted by program social workers by phone. Follow up phones calls were first made a week after the letters were mailed. Through phone calls and meetings that occurred as part of the special education program, recruitment continued from mid October through November of 2005. A total of forty parents agreed to participate and signed the approved consents. Once a parent had given his or her consent, his or her child, if
capable of understanding what it meant to give assent, was asked to give his or her assent to participate in writing. In most instances the social workers read prepared scripts describing the study and requested the student to provide assent to participate, indicated by signing the assent form. Letters of recruitment, consents, and scripts for child assent are in the appendices. Notices providing information to the children participating in the study about how to contact the researcher with questions about the study, should they arise, were posted in each classroom.

Random assignment placed all participants in an experimental condition or a cross-over (control) condition from December through June of the 2005-2006 academic year. Fifty percent of the children, a total of twenty, were placed in the experimental condition at the beginning of December, week thirteen of the school year. The remaining twenty, initially placed in the control or crossover condition moved to the experimental condition at the end of February, approximately school week twenty-one. The placement of the participants in the intervention groups was delayed by approximately six weeks. Due to the vulnerable nature of the participants which were families who had very little choice about where their children would attend school, approval by the Institutional Review Board took longer than expected. The board wanted assurances that the confidentiality of the children and families would not be jeopardized by participation in the study, and that those who chose not to participate would not receive an inferior service.
Data Sources

Three data sources were used for the study to create a database in SPSS: parent interviews and parent questionnaires, teacher interviews and teacher questionnaires, and student educational records supplied by the referring school districts. The following information was obtained from the student records at the time of referral to Rotterdam I and II: case number, gender, date of birth, home school district, educational disability, reason for referral, functional math level, functional reading level, eligibility for free lunch, previous school year attendance, and number of years in special education. Information about history of foster care, psychiatric hospitalization, and any psychiatric conditions or diagnoses their child may have received hospitalizations were obtained from parents. Teachers provided information about in school behaviors and academic levels.

Child data were collected on the student data collection form, which is included in the Appendices.

MEASURES

Demographic Variables

Age: Child/youth chronological age at pretest or Time 1.

Gender: Male, coded as 0; female coded as 1.

Ethnicity: Caucasian, coded as 0, African-American, coded as 1; other, coded as 2.

School level: Elementary program placement at pretest or Time 1, coded as 0; middle school, coded as 1.

Grade level: Grade level placement at pretest or Time 1.
**Reason for Referral:** Reason for referral to Rotterdam I or II; externalizing behaviors, coded as 0; internalizing behaviors, coded as 1.

**Subsidized lunch:** Child receives subsidized lunch, coded as 0; no subsidized lunch, coded as 1.

**Descriptive Variables**

**DSM-IV-TR:** Presence and number of psychiatric diagnoses; coded as 0 for 0-1, 1 for 2 or more.

**Bipolar Disorder:** Current or history of bipolar disorder; coded as 0 for no, 1 for yes.

**Depression:** Current or history of depression, coded as 0 for no, 1 for yes.

**Trauma:** Current or history of trauma, coded as 0 for no, 1 for yes.

**Attention Deficit Hyperactivity Disorder (ADHD):** Current or history of ADHD, coded as 0 for no, 1 for yes.

**Parental Involvement:** Parental/family participation in school program; attending meetings, following through on behavior and academic plans, conjointly working with community agencies coded 0 for no, 1 for yes.

**History of Foster Placement:** Current or history of foster placement; coded as 0 for no, 1 for yes.

**History of Psychiatric Hospitalization:** Current or history of psychiatric hospitalization, coded as 0 for no, 1 for yes.

**Dependent Variables**

The co-occurring conditions of multiple years of academic failure and aggressive behaviors in school lead to removal from mainstream education. The
dependent variables used in this study have been identified in the research as having an influence in school placement decisions for this population.

**The Behavior Rating Index for Children (BRIC).** This is a 13 item measure designed as a rating scale to be used by parents and others in the environment of children of all ages (Stiffman, Orme, Evans, Feldman, & Keeney, 1984). Parents completed the BRIC at the three data collection times: Time 1 - pretest, Time 2 - several weeks within the start of the second semester, and Time 3 - at the end of the school year. The BRIC is a thirteen item Likert Scale (1= rarely or never, 2= A little of the time, 3= Some of the time, 4= A good part of the time, 5= most or all of the time).

Parents were asked if their child:

1. Feel happy or relaxed?
2. Hides his/her thoughts from other people?
3. Say or do really strange things?
4. Not pay attention when he or she should?
5. Quit a job or task without finishing it?
6. Get along well with other people?
7. Hit, push or hurt someone?
8. Get along poorly with other people?
9. Get very upset?
10. Compliment or help someone?
11. Feel sick?
12. Cheat?
13. Lose his or her temper?

Ten of the thirteen items measure the degree of problem behaviors or characteristics. Three randomly placed items describe positive behaviors or characteristics. Allowing for progress to show an increase in scores rather than an increase in problem behaviors and for consistency with the Teacher Report Form, the items on the BRIC were reverse coded. Therefore, 1= Most or all of the time, 2= A good part of the time, 3= Some of the time, 4= A little of the time, 5= Rarely or never). The ten items representing problem behaviors were used to compute a summary score (S= (Y-N) (100)/ 4N with a potential range of 0-100, a formula which is a simple linear transformation (Stiffman et al., 1984). Since the items were reverse coded, the lower the score, the greater the degree of problem behaviors. The BRIC is a moderately stable instrument when completed by adults with a test-retest correlation ranging from .71 to .89 (Stiffman et al., 1984).

**The BRIC Externalizing Subscale:** While the BRIC is easy to use, it has its limitations. The questionnaire measures several different types of characteristics and behaviors such as internalizing behaviors and externalizing behaviors. The thirteen items were examined conceptually and broken down into internalizing and externalizing categories. Although there were not enough items to develop an internalizing subscale, an externalizing scale was developed by this researcher. Cronbach’s alpha was used to examine reliability. The scores are reported in the results section for both externalizing subscales. The items used in the externalizing subscale were: says or does strange things, does not pay strange attention when he
or she should, hit, push or hurt someone, get along poorly with other people, get very upset, cheat, lose his/her temper; items that were commonly identified in the student referral information as reasons for the need for a restrictive educational placement. The BRIC and the BRIC externalizing subscale are included in the Appendices.

**Teachers Report Form (TRF)**-This measure was developed for use by teachers to measure the degree of behaviors exhibited in the classroom (Bailey-Dempsey, 1993). Teachers also completed the TRF at the three data collection points. All items are coded using a Likert scale with 1= Always, 2= Often, 3= Sometimes, 4= Seldom, 5= Never.

1. Swears during class.
2. Disrupts other students.
3. Daydreams; does not pay attention to class material.
4. Hyperactive; not able to be still when necessary.
5. Asks for passes to leave the classroom.
6. Talks back to the teacher during class.
7. Shows off during class.
8. Requires a lot of help with school work.
9. Quiet; does not participate in class discussion.
10. Talks without waiting his or her turn.
11. Does not come to school with books or supplies.
12. Is aggressive toward others.
13. Is unhappy for no apparent reason.

The formula for computing the BRIC summary score was also used for the TRF, using all thirteen items. Both scales a potential range of 0-100 (Stiffman et al., 1984)

**The TRF Externalizing Subscale:** Using the same conceptualization and method as the BRIC, a TRF externalizing subscale was developed with shown strong inter item reliability. The items used for the TRF externalizing subscale were: swears during class, disrupts other students, hyperactive, talks back to the teacher during class, shows off during class, talks without waiting his or her turn, is aggressive toward others, is unhappy for no apparent reason. The TRF and the TRF externalizing subscale are included in the Appendices.

**Functional reading levels:** Functional reading levels were measured by scores on the standardized reading measure, STAR Reading Test or the Early Literacy Test for children at the readiness level. Children in attendance at the two research sites during the previous school year, 2004-2005, were evaluated by these measures at the end of that school year (2004-2005), and those scores were used as pretest reading levels. Those who were new to the research sites were evaluated by either of these measures in the fall of 2005; these scores were used as pretest reading data for this study for the new enrollees. Reading level scores on STAR Reading or Early Literacy Tests were coded as a grade level score for Star Reading, and a descriptive numerical score for Early Literacy. Posttest scores were measured in June 2006.
**Functional math levels:** Math levels were measured by scores on the standardized measure, the STAR Math test. As in the case of reading, if the students were enrolled in the program during the previous school year, the end of the year data were used and new students were evaluated in the fall of the study school year. Math level scores for the STAR Math Test coded as a grade level score. Posttest scores were measured in June 2006.

**Independent Variable**

Previous studies have indicated the need for more comprehensive and integrated school and community services for children and youth who meet the criteria for emotional and behavioral disabilities (Greenbaum & Dedrick, 1996; Walker & Sprague, 1999). *Partners in Success* was an effort to assist parents in assuming a greater role in the education of their children with severe emotional and behavioral disabilities. The model uses a coordinated team approach based on the academic and behavioral goals chosen by the parents of the children and youth placed in the segregated placement sites. The intent of the intervention was to overcome the barriers and obstacles that prevented schools and families from working together. The case management component of the intervention addressed the fragmentation and gaps in services that often result when children and youth are served by multiple agencies from social services, juvenile justice, and mental health systems. This collaboration allowed the teachers and social workers greater opportunities to view the students within the
context of their homes and communities (Viggiani, Reid, & Bailey-Dempsey, 2002). The original model for the intervention was a short-term consisting of eight to twelve sessions occurring over two to four months (Reid, 1972; Reid, 1997). The intervention was extended to include three of the ten week quarters of the school year for this study. The experimental group participated in the intervention for three quarters and the control or crossover group participated for the second semester or the last two quarters of the 2005-2006 school year.

The intervention established goals with parents to support a successful school experience for their children and youth attending Rotterdam I or II. Parents participated in the intervention by developing behavioral and academic goals, worked with the teachers and social workers by attending meetings, completing agreed upon tasks, and following through with jointly developed objectives.

The following intervention protocol was developed from a model used and tested in a public school setting serving regular and special education students in Oneida County (Colvin, Lee, Magnano, & Smith, 2008). The protocol was adapted to establish a better fit for the self-contained special education sites.

During the preadmission phase, referrals to the Rotterdam Academy I & II *Partners-in-Success* program are made by the students’ home school districts. Once a referral has been made to the program, the referring school district, parent, student and involved community service providers were invited to attend a school visit and participate in an intake meeting. The program administrator communicated with the
referral source as to the status of the referral, i.e. accepted, denied, or wait listed once a decision is made. Once accepted the parents were given a start date for his or her child.

The next phase usually occurred over the first four to six weeks of the program. The objectives of this phase were to engage the parents and child, obtain consents, identify problems and establish the child study team. Once this happened the child study team meeting was initiated by the school social worker by phone. The meeting most often took place at the school, but can take place at the home of the child or at another agency. Prior to this meeting the social worker will have met with the child individually and in a group, and will have observed the child in various settings within the school. At the first meeting the concerns that facilitated the referral to Rotterdam Academy I or II are reviewed; the provided services and expectations for participation in the program are discussed and agreed upon. The process of the child study team was explained and the child was encouraged to invite his or her own supports to future meetings. Recruitment letters for *Partners in Success* and consents were presented and signed. During the initial individual meetings with the child schedules for counseling were established and areas of concern were explored. Many children have different perceptions of the problem behaviors than the members of the educational team. Attempts were made to accept the child’s perception of the problem while gradually working toward a more realistic assessment of the work that was to be done. During this phase, the social worker and other members of the team will have had several meetings or telephone contacts with the parents throughout this phase to gather
information and formulate goals. The parents were asked then to complete the BRIC, which was used as the pretest.

The teacher was asked to complete the first TRF and sign the Teacher Consent Form. The Individualized Education Plan was reviewed or developed, and assessment of the child’s educational needs, which includes behaviors, continued. The teacher administered the STAR Early Literacy or STAR Reading, and STAR Math, depending on the child’s grade level. These tests were used as the pretest functional education level scores.

The intervention phase consisted of the goal-setting, monitoring, and services to the child and family. The experimental condition began the intervention at week thirteen with the establishing of goals with parents; for the crossover condition, the goal-setting and introduction to the intervention occurred at week twenty-five. Prior to “crossing over” to the experimental condition, the crossover condition received a model of service delivery similar to the school counseling model: social workers pulled out children from their classes to meet individually and in groups, performed crisis intervention, parent education, and teacher consultation. In contrast, once placed in the experimental condition, the approach was collaborative: children, parents, teachers and additional supports chosen by the child or family formed a service team to resolve problems with the social worker facilitating the process (Colvin et al., 2008).

The second set of evaluations was completed by teachers and parents in both conditions in this phase. For the experimental condition, this was the first data collection after exposure to the intervention. For the crossover condition, this data
collection took place before exposure to the intervention, but after placement in the program for the first semester of the school year, allowing for pre and post intervention evaluation. Parents who were unable to come to school, do not prefer a home visit, or were unable complete the evaluation independently, completed the evaluation with the social worker reading the questionnaire by phone. The activities occurring during this phase were the child study team meetings, parent meetings, and individual meetings with children. The goal of the first meeting was to develop a plan after the social worker or teacher summarizes the areas of concern established during initial phase of the intervention. All members were asked to share ideas about how to reduce the occurrences of the problem behaviors and improve academic skills. The social worker was to develop these ideas into tasks for members of the team to complete. The plan was reviewed and the date for the next meeting was set. The time frame for the next meeting was dependent on the circumstances of the individual child and parents. At subsequent meetings progress in completing tasks was reviewed, new tasks were developed and the date for the next review was set. If family sessions were agreed upon as part of the plan, the social worker developed a schedule for the family sessions, including who was to participate and where the sessions should take place. The format for the session generally followed the format of the team meetings, with a review of progress, establishing the next set of tasks, and what is needed to accomplish the tasks. This may have included therapeutic homework to have been done between sessions. Concomitantly, individual sessions were taking place at school. The individual sessions were focused on the tasks developed in the goal plan and may have included activities
such as charting behaviors, skill-building, working with peers, use of games and role-playing. Progress was reviewed with the child, and plans for what was to occur before the next session was established.

The closure phase occurs at the end of the school year. A final team meeting took place where there was a review of the progress in each area of concern. Parents and teachers were asked to complete the final TRF and BRIC evaluations. The final individual session with the child included an individual review of progress, and ended with a discussion of what the child will work on in next school year.

There were differences in the timeline for recruitment for the two sites. At the elementary site, most parents were recruited at a back to school night and consents were signed at that time. Approximately four of the students were added between the initial recruitment and assignment to experimental or crossover condition. At the middle school site where a back to school night did not occur, social workers recruited parents over the first quarter of the school year. Therefore, there were cases where intake, recruitment and preliminary goals were discussed at the first meeting. In addition, there were also differences in the implementation of the interventions. Since the interventions for both conditions were initiated after the start of the school year, some of the preliminary engagement of parents had occurred. In the experimental condition, this did not present too much of a problem because the exposure to the intervention, establishing of goals to be worked on with parents and the community agencies took place relatively early in the school year. For the crossover condition, implementation was more difficult and occurred at a time when the goals were being written by teachers.
for the next school year for Individual Education Plan development. The initiation of goal setting with parents in the crossover condition was used as an opportunity for a “tune up” for children having problems at the mid year point.

The rationale why this intervention should work is that the literature shows that when parents are involved in school prevention programs, the development of common expectations and rules for parents and schools is fostered (Shepard & Carlson, 2003). Other research has shown that parental expectations have greater predictive value in school outcomes than income (Bowen, 1998). The model used in this study views parents as competent team members who along with the school are looking for specific ways to help their children show improvements in their behavior and academic skills. Blaming parents for their children’s problems is avoided, and the intervention is perceived as more respectful. The concept of home and school as a team establishes a mutual respect where it is recognized that working together can be more effective than working alone (Shepard and Carlson, 2003).

The other key components of the intervention, setting goals and defining tasks have been correlated with positive outcomes (Reid, 1997; Reid & Bailey-Dempsey, 1995; Viggiani, Reid, & Bailey-Dempsey, 2002). These activities reflect the participation and commitment of the participants while parents, children, teachers, social workers and community service providers jointly plan, prepare, review and assess barriers and obstacles in completing the tasks. The mechanism for change is the successful completion of the tasks (Reid, 1997).
One area of the work that went very well was the collaboration with families and the community agencies in getting much needed resources and services for families. Parents received help in finding and getting to mental health providers and doctors, and needed medications. Social workers provided transportation for team meetings to school, conducted home visits and arranged consultations with the program consulting child psychiatrist. The child psychiatrist assisted parents with getting the proper medications for their children from their medical providers. Social workers helped parents learn how to express their concerns to their home school districts and community service agencies. They also facilitated the team meetings and mediated when what parents needed from the school for their children to be successful and what teachers needed to maintain their classes appeared to be in conflict.

Working relationships between parents and the school broke down when there were repeated incidents of severe physical aggression that required physical restraint and suspensions, or when reports were made to Child Protective Services (CPS). In many instances, calls to CPS were successfully worked through by the team. However, physical restraints were very problematic for all. Then it was very difficult to avoid attributions of blame by both teachers and parents. When parents perceived these serious consequences as unfair or rejecting, they were less willing to follow through with the work with the schools. Teachers had difficulty remaining supportive and accepting when they felt the children’s aggressive behaviors were deliberate, or that the parents were not supporting them.
Table 2.1

Data Sources and Database Variables
<table>
<thead>
<tr>
<th>Data Sources</th>
<th>Variables</th>
<th>Variable Type</th>
<th>Data Collection Points</th>
</tr>
</thead>
<tbody>
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</tr>
<tr>
<td></td>
<td>Grade level</td>
<td>Continuous</td>
<td>Time 1</td>
</tr>
<tr>
<td></td>
<td>Handicapping Condition</td>
<td>Nominal</td>
<td>Time 1</td>
</tr>
<tr>
<td></td>
<td>Number of years in special education</td>
<td>Continuous</td>
<td>Time 1</td>
</tr>
<tr>
<td></td>
<td>Reading level</td>
<td>Continuous</td>
<td>Time 1, 3</td>
</tr>
<tr>
<td></td>
<td>Math Level</td>
<td>Continuous</td>
<td>Time 1</td>
</tr>
<tr>
<td></td>
<td>Reason for Referral</td>
<td>Categorical</td>
<td>Time 1</td>
</tr>
<tr>
<td><strong>Parent Interviews</strong></td>
<td>Ethnicity</td>
<td>Categorical</td>
<td>Time 1</td>
</tr>
<tr>
<td></td>
<td>Eligibility for free lunch</td>
<td>Categorical</td>
<td>Time 1</td>
</tr>
<tr>
<td></td>
<td>History of foster care</td>
<td>Categorical</td>
<td>Time 1</td>
</tr>
<tr>
<td></td>
<td>History of psychiatric illness</td>
<td>Categorical</td>
<td>Time 1</td>
</tr>
<tr>
<td><strong>Behavior Rating Index for Children</strong></td>
<td>Feel happy or relaxed?</td>
<td>Continuous</td>
<td>Time 1, 2, 3</td>
</tr>
<tr>
<td></td>
<td>Hides his/her thoughts from others?</td>
<td>Continuous</td>
<td>Time 1, 2, 3</td>
</tr>
<tr>
<td></td>
<td>Say or do really strange things/</td>
<td>Continuous</td>
<td>Time 1, 2, 3</td>
</tr>
<tr>
<td></td>
<td>Not pay attention when he or she should?</td>
<td>Continuous</td>
<td>Time 1, 2, 3</td>
</tr>
<tr>
<td></td>
<td>Quit a job or task without finishing?</td>
<td>Continuous</td>
<td>Time 1, 2, 3</td>
</tr>
<tr>
<td></td>
<td>Get along well with other people?</td>
<td>Continuous</td>
<td>Time 1, 2, 3</td>
</tr>
<tr>
<td></td>
<td>Hit, push or hurt someone?</td>
<td>Continuous</td>
<td>Time 1, 2, 3</td>
</tr>
<tr>
<td></td>
<td>Get along poorly with other people?</td>
<td>Continuous</td>
<td>Time 1, 2, 3</td>
</tr>
<tr>
<td></td>
<td>Get very upset?</td>
<td>Continuous</td>
<td>Time 1, 2, 3</td>
</tr>
<tr>
<td></td>
<td>Compliment or help someone?</td>
<td>Continuous</td>
<td>Time 1, 2, 3</td>
</tr>
<tr>
<td></td>
<td>Feels sick?</td>
<td>Continuous</td>
<td>Time 1, 2, 3</td>
</tr>
<tr>
<td></td>
<td>Cheat?</td>
<td>Continuous</td>
<td>Time 1, 2, 3</td>
</tr>
<tr>
<td></td>
<td>Lose his/her temper?</td>
<td>Continuous</td>
<td>Time 1, 2, 3</td>
</tr>
<tr>
<td><strong>Teacher Report Form</strong></td>
<td>Swears during class.</td>
<td>Continuous</td>
<td>Time 1, 2, 3</td>
</tr>
<tr>
<td></td>
<td>Disrupts other students.</td>
<td>Continuous</td>
<td>Time 1, 2, 3</td>
</tr>
<tr>
<td></td>
<td>Daydreams; does not pay attention to class material.</td>
<td>Continuous</td>
<td>Time 1, 2, 3</td>
</tr>
<tr>
<td></td>
<td>Hyperactive; not able to sit still when necessary.</td>
<td>Continuous</td>
<td>Time 1, 2, 3</td>
</tr>
<tr>
<td></td>
<td>Asks for passes to leave the classroom.</td>
<td>Continuous</td>
<td>Time 1, 2, 3</td>
</tr>
<tr>
<td></td>
<td>Shows off during class.</td>
<td>Continuous</td>
<td>Time 1, 2, 3</td>
</tr>
<tr>
<td></td>
<td>Requires a lot of help with class work.</td>
<td>Continuous</td>
<td>Time 1, 2, 3</td>
</tr>
<tr>
<td></td>
<td>Quiet, does not participate in class discussion.</td>
<td>Continuous</td>
<td>Time 1, 2, 3</td>
</tr>
<tr>
<td></td>
<td>Talks without waiting for his/her turn.</td>
<td>Continuous</td>
<td>Time 1, 2, 3</td>
</tr>
<tr>
<td></td>
<td>Does not come to class with books or supplies.</td>
<td>Continuous</td>
<td>Time 1, 2, 3</td>
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<tr>
<td></td>
<td>Is aggressive toward others.</td>
<td>Continuous</td>
<td>Time 1, 2, 3</td>
</tr>
<tr>
<td></td>
<td>Is unhappy for no apparent reason.</td>
<td>Continuous</td>
<td>Time 1, 2, 3</td>
</tr>
</tbody>
</table>
ANALYTIC PLAN

Univariate: Frequencies distributions and descriptive statistics were run for all descriptive and continuous variables to describe the sample and check for accuracy. The following categorical variables were used: gender, school level, experimental or control (crossover condition), reason for referral, eligibility for free or reduced lunch, history of foster placement, history of psychiatric hospitalization, and parental involvement. The continuous variables treated as categorical were: number of psychiatric diagnoses and number of years in special education. Measures of central tendency, mean and standard deviation, were measured for age, grade level, and functional reading and math levels.

Bivariate: Measures of association including cross tabulation and Pearson’s product moment correlation were used to determine the strength of the relationships between the behavioral variables on the BRIC and the TRF the development of the subscales, and differences between the two conditions.

Hypothesis testing: A variety of analytic tests were used. Chi square analyses and independent samples t-tests were used to evaluate mean differences in the two conditions on descriptive and dependent variables. Paired sample t-tests were used to compare mean change between Time 1 and Time 2, Time 2 and Time 3, and Time 1 and Time 3 for both conditions for the behavior variables on the BRIC and the TRF. Paired sample t-tests were also used to analyze the mean change in
reading and math levels. The primary hypothesis, that there will be a significant difference between the experimental condition and control condition, the expectation that the experimental condition will show greater improvement than the control or crossover condition, was tested using repeated ANOVA’s. Repeated ANOVA was also used to test the significance of the difference in the response to the intervention in groups of students who scored one standard deviation below the mean, at the mean or one standard deviation above the mean.

Methodological Considerations

Limitations of the Sample: The study sample was limited to the children who have been selected for admittance to the segregated site special education programs and their parents, a factor beyond the control of the researcher (Rossi, Freeman, & Lipsey, 1999). All admitted children have been referred from another school system that was unable to program for them for reasons that are not known. It is likely that those referred have come from school systems lacking in needed resources, and as a result, this may have implications for the sample in systematic ways. The children that are enrolled have histories of school failure due to emotional and behavioral disabilities that have been expressed through disruptive and often aggressive behavior. They have been unable to learn or maintain acceptable behaviors in a less restrictive educational setting. Children who are placed in the elementary grade classes in the program may have attended a specialized preschool and have not accumulated years of school failure, but, at a very early age, have consistently demonstrated severe behaviors. Youth in the middle school grades of the program have not been successful in several levels of
restrictive programming, experiencing multiple failures, some including day treatment and/or residential care. Therefore, the factors that determine who is referred and accepted for placement cannot be controlled in this study. Differences and similarities between those who are referred and accepted, referred and denied, and not referred are unknown. Within this sample, the children were randomly assigned to the experimental condition or the crossover condition.

Limitations of collecting data from school records: School records often contain incomplete and inaccurate information. Since the children participants in this study have been referred by many different school districts, there may be differences in school policies regarding what information is placed in a student’s cumulative school record and what information is shared when a student is referred for an out of district placement. Limitations of collecting data from teachers and social workers: Recording and documentation practices among teachers and social workers vary. There is concern that contacts with and information from parents and incidents of problem behavior including physical restraints may not have been consistently reported.

Limitations of collecting student and family histories: All of the children in the study and many of the families have had serious school behavior problems and as a result, may have strained relationships with schools and negative feelings about the educational system in general. There may be conflicting reports between parent and schools about nature and severity school behavior and academic struggles.

Limitations of the partial crossover research design: All of the participants in the study received the benefits of the program from the date of enrollment. Teachers
and school social workers began to engage parents in working with them from this point. The participants in the crossover condition may have benefited from the intervention prior to crossing over to the experimental condition at week twenty-one which could influence the results.

Despite the above the methodological limitations, the design provided a comparison for the evaluation of the intervention designed to improve behavior and academic outcomes for children with emotional and behavioral disabilities. The behavioral measures, the TRF and the BRIC were easy to administer and applied to a broad range of child behavior issues. The academic measures, STAR Reading, Early Literacy and Math were administered with consistency allowing for pretest to posttest comparison for the findings reported in the next chapter.
CHAPTER 3

RESULTS CHAPTER

The results chapter is organized following the conceptual model of the study. The study sample descriptive data is presented by student characteristics including sociodemographic data, educational data, and student history data about mental illness and foster care placement, all important influences in school outcomes. Chi square and tests of significance are used to evaluate the experimental and control conditions for group equivalence on student characteristics and behavioral characteristics using two measures, the Teacher Report Form and Behavior Rating Index. Repeat Analysis of Variance is used to measure the impact of the intervention on the dependent variables, using both full measures and two externalizing behavior subscales, which were developed from the measures.

DESCRIPTION of the SAMPLE

A total of sixty students were enrolled in the programs at the research sites at the opening of the 2005-2006 school year. Of the sixty students enrolled, the parents and guardians of forty of the students signed consents to participate in the study with their children and comprised the sample. Frequency distributions for the categorical demographic variables and measures of central tendency for continuous variables are listed in tables 3.1 and 3.2.
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</tr>
<tr>
<td>No Foster Placement</td>
<td>62.5</td>
<td>25</td>
</tr>
<tr>
<td>% Missing</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>History of Psychiatric Hospitalization</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hospitalized</td>
<td>35.0</td>
<td>14</td>
</tr>
<tr>
<td>Not hospitalized</td>
<td>65.0</td>
<td>26</td>
</tr>
<tr>
<td>% Missing</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>
Parental Involvement in Program

<table>
<thead>
<tr>
<th></th>
<th>Parents Involved</th>
<th>% Missing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parents Involved</td>
<td>70.0</td>
<td>28</td>
</tr>
<tr>
<td>Parents not involved</td>
<td>30.0</td>
<td>12</td>
</tr>
<tr>
<td>% Missing</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Male students comprised approximately ninety percent (87.5%) of the sample. The age range of the students was five to fifteen years with a mean age of 10.4 years. Sixty-five percent of the students were Caucasian, followed by thirty percent African American students and five percent Hispanic students. Over three quarters (77.5%) of the students were referred for placement for externalizing behaviors, with the remaining referred for internalizing behaviors. Approximately seventy percent (67.5%) received subsidized lunch. Almost forty percent (37.5%) of the students had been placed in foster care at some time prior to referral and thirty-five percent had been hospitalized for psychiatric care on at least one occasion. Over sixty percent (62.5%) were diagnosed with none or one psychiatric condition under DSM IV-R, and the remaining 37.5 percent with two or more, with a maximum of four conditions. Of the twenty four students in the sample (60%) who had data reported on the number of years in special education, 32.5% had been in special education for a period of three to five years, followed by 15% who had been in special education for zero to two years, and 12% who had been placed in special education for six to nine years.

Demographic variables of age and grade placement levels and dependent variables of math and reading levels are measured as continuous variables. Measures of central tendency are presented in table 3.2 for continuous variables.
TABLE 3.2
Sample Description: Students with Severe Emotional Disturbance
2005-2006 School Year
Mean, Standard Deviations, Pretest and Missing Values for Continuous
Variables at Time 1

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>S.D.</th>
<th>% Missing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>10.4</td>
<td>2.6</td>
<td>0.0</td>
</tr>
<tr>
<td>Grade</td>
<td>5.1</td>
<td>2.3</td>
<td>0.0</td>
</tr>
<tr>
<td>Star Math Pretest</td>
<td>2.9</td>
<td>1.6</td>
<td>5</td>
</tr>
<tr>
<td>Star Reading Pretest</td>
<td>3.2</td>
<td>2.1</td>
<td>0.0</td>
</tr>
<tr>
<td>Early Literacy Pretest</td>
<td>711</td>
<td>68.52</td>
<td>27%</td>
</tr>
</tbody>
</table>

Two reading measures were used: the Star Early Literacy Test for many of the students at the kindergarten through fifth grade level, and the Star Reading Test, which was used for evaluating the students in the sixth through eighth grade level. Four students at the kindergarten to fifth grade were evaluated on the Star Reading Test. One student in the sixth through eighth grade group also was evaluated using the Early Literacy Test due to an ability level below the starting point of the Star Reading Test. The Early Literacy Test rating is descriptive of early literacy skills and reading readiness rather than a grade level ability evaluation. The students at the 6th grade through 8th grade level were evaluated using the Star Reading Test, which provides a grade level score. Where grade level scores were provided, the students in the sample ranged from one and five months to four years below their grade level in reading at Time 1. In math, Time 1 scores ranges from four months to seven years below grade level. The range of missing values is from 0% at the sixth through eighth grade level, to 27% at the kindergarten to fifth grade level. There are two reasons for missing values, absenteeism and student refusal to complete the evaluation. These findings are
consistent with other studies of students with severe emotional disturbance that show they have substantial academic deficits and that the skill deficits for this population in math are greater than in reading.

**Comparison of the Sample with National Data**

The Special Education Elementary Longitudinal Study (SEELS) and the National Longitudinal Transition Study-2 (NLTS2) provides national demographic, functional, educational and behavioral data on the characteristics of children with emotional disturbance served in special education programs under the Individuals with Disabilities Education Act. It has been found that eighty percent (80%) of children nationally with emotional disturbance are males as compared to eighty-seven percent (87%) in this study. Approximately thirty-three percent of the children in the study live in poverty, almost identical to the national percentage (33.2%). The children in this study have been diagnosed with depression, bipolar disorder, trauma and attention deficit hyperactivity disorder (ADHD); parents in the national study reported their children had been diagnosed with anxiety, bipolar disorder, Tourette’s Syndrome, depression, obsessive-compulsive disorder, oppositional disorder and psychosis. Two thirds of elementary, middle and high school students with emotional disturbance were identified as having ADHD as compared with fifty percent of the students in this study. While the national data reports reading and math deficits in percentile scores rather than in years and months below grade level as in this study, children with emotional and behavioral disabilities have more severe delays in reading than in math. This pattern has also been found in this study.
The participants in this study were similar to the national sample on several descriptive variables associated with poor school outcomes such as poverty, psychiatric conditions including mood disorders, trauma; and lower math scores as compared with reading scores for students with emotional and behavioral disabilities. The samples differed in that the present study had a higher percentage of male students and a significantly lower percentage of students with ADHD. Other than these two characteristics, the findings suggest the study participants are characteristic of the national population of students with emotional and behavioral disabilities.

Comparisons of the two conditions were completed. Experimental and Control (or Crossover) conditions were compared at Time 1. Chi-square analyses and tests of significance were used to determine the between group differences for Experimental and Control conditions for the categorical variables: gender, school level, reason for referral to the school program, externalizing or internalizing behaviors, subsidized lunch, parental involvement, history of foster care and history of psychiatric hospitalization. The continuous variables of number of years in special education and number of DSM-IV-TR diagnoses a student had received were recoded onto categorical variables. Number of years in special education was coded in 3 categories, 0-2 years, 3-5 years, and 6-9 years. Number of DSM-IV-TR diagnoses was placed into two categories, 0-1 DSM-IV-TR diagnosis and 2 or more DSM-IV-R diagnoses.
TABLE 3.3  
Chi-square Analyses for Categorical Demographic Variables for Experimental and Control Conditions at Time 1

<table>
<thead>
<tr>
<th>Variable</th>
<th>Experimental</th>
<th>Control</th>
<th>Chi Square</th>
<th>DF</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td>N=20</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Males</td>
<td>18</td>
<td>17</td>
<td>.23</td>
<td>1</td>
<td>.63</td>
</tr>
<tr>
<td>Females</td>
<td>2</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Level</td>
<td></td>
<td></td>
<td>N=20</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grades K-5</td>
<td>11</td>
<td>11</td>
<td>.00</td>
<td>1</td>
<td>1.00</td>
</tr>
<tr>
<td>Grades 6-8</td>
<td>9</td>
<td>9</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reason for Referral</td>
<td></td>
<td></td>
<td>N=20</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Internalizing</td>
<td>4</td>
<td>5</td>
<td>.143</td>
<td>1</td>
<td>.71</td>
</tr>
<tr>
<td>Externalizing</td>
<td>16</td>
<td>15</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lunch</td>
<td></td>
<td></td>
<td>N=20</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Subsidized</td>
<td>16</td>
<td>11</td>
<td>2.85</td>
<td>1</td>
<td>.09+</td>
</tr>
<tr>
<td>Not subsidized</td>
<td>4</td>
<td>9</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Years in Special Education</td>
<td></td>
<td></td>
<td>N=20</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0- 2 years</td>
<td>2</td>
<td>4</td>
<td>2.54</td>
<td>2</td>
<td>.28</td>
</tr>
<tr>
<td>3- 5 years</td>
<td>6</td>
<td>7</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6- 9 years</td>
<td>4</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Parental Involvement</td>
<td></td>
<td></td>
<td>N=20</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>5</td>
<td>7</td>
<td>.476</td>
<td>1</td>
<td>.49</td>
</tr>
<tr>
<td>Yes</td>
<td>15</td>
<td>13</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>History of Foster care</td>
<td></td>
<td></td>
<td>N=20</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>12</td>
<td>13</td>
<td>.107</td>
<td>1</td>
<td>.74</td>
</tr>
<tr>
<td>Yes</td>
<td>8</td>
<td>7</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
History of Psychiatric Hospitalization

<table>
<thead>
<tr>
<th></th>
<th>No</th>
<th>11</th>
<th>15</th>
<th>1.76</th>
<th>1</th>
<th>.19</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>9</td>
<td>5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*p < .10

The experimental and control condition differences did not reach a level of significance on any of the categorical variables using Pearson’s chi square test, suggesting that any differences on outcome variables between the two conditions are not due to differences in the categorical variables at Time 1.

Data were collected on the following psychiatric diagnoses or conditions: anxiety disorder, Pervasive Developmental Disorder (PDD), psychosis, bipolar disorder, oppositional defiant disorder, (ODD), depression, traumatic brain injury (TBI), multiply disabled, intermittent explosive disorder, separation anxiety disorder, reactive attachment disorder, child abuse/neglect, trauma (PTSD), attention deficit hyperactivity disorder (ADHD), and mental retardation. Frequency distributions and cross-tabulations were completed. Conditions with cells counts under six were eliminated from further analysis. The remaining conditions were psychosis, bipolar disorder, depression, trauma, and attention deficit hyperactivity disorder.
<table>
<thead>
<tr>
<th>Variable</th>
<th>Experimental</th>
<th>Control</th>
<th>Chi Square Value</th>
<th>DF</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of DSM IV R Diagnosis</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0- 1</td>
<td>12</td>
<td>13</td>
<td>.11</td>
<td>1</td>
<td>.74</td>
</tr>
<tr>
<td>1- 2- more</td>
<td>8</td>
<td>8</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DSM IVR Diagnosis</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Psychosis</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>16</td>
<td>18</td>
<td>.78</td>
<td>1</td>
<td>.38</td>
</tr>
<tr>
<td>Yes</td>
<td>4</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bipolar disorder</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>17</td>
<td>17</td>
<td>.00</td>
<td>1</td>
<td>1.00</td>
</tr>
<tr>
<td>Yes</td>
<td>3</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Depression</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>16</td>
<td>18</td>
<td>.78</td>
<td>1</td>
<td>.38</td>
</tr>
<tr>
<td>Yes</td>
<td>4</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trauma</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>18</td>
<td>18</td>
<td>.00</td>
<td>1</td>
<td>1.00</td>
</tr>
<tr>
<td>Yes</td>
<td>2</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ADHD</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>8</td>
<td>12</td>
<td>1.60</td>
<td>1</td>
<td>.21</td>
</tr>
<tr>
<td>Yes</td>
<td>12</td>
<td>8</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The experimental and control condition differences in number and type of psychiatric diagnoses did not reach a level of significance using Pearson’s chi square test, suggesting that any differences in the dependent variables at Time 3 between the two conditions are not due to differences in number or specific psychiatric condition at Time 1.

DEPENDENT VARIABLES

Reliability of Measures

The two measures used in this study, The Teachers Report Form (TRF) and the Behavior Rating Index for Children (BRIC) measure the degree of problem behaviors. The psychometric properties of the measures were examined through Cronbach’s alpha. Each measure was analyzed at Time 1, Time 2 and Time 3. The findings show the TRF had a moderate reliability at Time 1, \( \alpha .69, p<.05 \), Time 2, \( \alpha .71, p<.05 \), and strong reliability at Time 3, \( \alpha .80, p<.05 \). The findings show the BRIC had a low reliability at Time 1, \( \alpha .42, p<.05 \), Time 2, \( \alpha .59, p<.05 \), and moderate at Time 3, \( \alpha .74, p<.05 \).

Externalizing subscales of the TRF and the BRIC were created by the researcher specifically for this study using the behavioral variables representative of the classification of severe emotional disturbance derived from literature. The TRF and the BRIC were comprised of items measuring both internalizing and externalizing
behaviors. By separating them, the scales had less diverse behavioral themes and seemed to hold together better conceptually when examining behavior outcomes for students in segregated school placements. The TRF externalizing subscale used the following variables: swears, disrupt, hyperactivity, talks, shows, and aggression. The findings show strong reliability at Time 1, $\alpha .84$, $p< .05$, Time 2, $\alpha .86$, $p<.05$, and Time 3 $\alpha .90$, $p<.05$. The BRIC externalizing subscale used the following variables: says, no attention, hit/push, get along poorly, upset, and cheat. The findings show moderate reliability at Time 1, $\alpha .64$, $p<.05$, low reliability at Time 2 $\alpha .47$, $p<.05$, and moderate reliability at Time 3, $\alpha .69$, $p<.05$. In summary, the TRF subscale, completed by teachers, had consistently acceptable to strong alpha scores while the BRIC subscale, completed by parents with marginal to acceptable alpha scores. These findings show that the externalizing subscales are easy to administer and reliable measures for school problem behaviors.

**Comparison of Experimental and Control Conditions at Time 1 Teachers Report Form and Behavior Rating Index for Children**

Two tailed independent t- tests were used to compare the means of the individual items or dependent variables in the experimental and control conditions on the TRF and the BRIC at Time 1 to determine between group differences in behaviors prior to exposure to the intervention. Scores on the items range from 1= Always (incidence of problem behavior) to 5= Never (no problem behavior).
<table>
<thead>
<tr>
<th>Variable</th>
<th>Experimental Condition Mean</th>
<th>Control Condition Mean</th>
<th>T (df)</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Swears</td>
<td>2.94</td>
<td>3.65</td>
<td>-2.03 (36)</td>
<td>.05*</td>
</tr>
<tr>
<td>Disrupts</td>
<td>2.50</td>
<td>3.00</td>
<td>-1.73 (36)</td>
<td>.09</td>
</tr>
<tr>
<td>Inattention</td>
<td>3.11</td>
<td>3.20</td>
<td>-0.32 (36)</td>
<td>.75</td>
</tr>
<tr>
<td>Hyperactivity</td>
<td>2.78</td>
<td>3.23</td>
<td>-1.33 (36)</td>
<td>.19</td>
</tr>
<tr>
<td>Asks for Passes</td>
<td>3.67</td>
<td>2.85</td>
<td>1.88 (36)</td>
<td>.07+</td>
</tr>
<tr>
<td>Talks Back</td>
<td>3.00</td>
<td>3.40</td>
<td>-1.29 (36)</td>
<td>.21</td>
</tr>
<tr>
<td>Shows off</td>
<td>3.00</td>
<td>3.15</td>
<td>-0.33 (36)</td>
<td>.74</td>
</tr>
<tr>
<td>Asks for help</td>
<td>2.05</td>
<td>2.85</td>
<td>2.01 (36)</td>
<td>.05*</td>
</tr>
<tr>
<td>No Participation</td>
<td>3.17</td>
<td>3.55</td>
<td>0.86 (36)</td>
<td>.39</td>
</tr>
<tr>
<td>Talks w/o</td>
<td>2.67</td>
<td>3.05</td>
<td>-1.10 (36)</td>
<td>.28</td>
</tr>
<tr>
<td>No Supplies</td>
<td>3.33</td>
<td>3.25</td>
<td>0.20 (36)</td>
<td>.84</td>
</tr>
<tr>
<td>Aggressive</td>
<td>3.11</td>
<td>3.40</td>
<td>-0.84 (36)</td>
<td>.41</td>
</tr>
<tr>
<td>Unhappy</td>
<td>3.00</td>
<td>3.35</td>
<td>-1.02 (36)</td>
<td>.32</td>
</tr>
</tbody>
</table>

+p<.10+, *p< .05,

Significant differences were found in two variables, swears and asks for help at Time 1. The participants in the control condition had a higher mean score for swears (M=3.65) than the participants in the experimental condition (M= 2.94). The difference was significant t (36) = -2.03, p<.05. The control condition had a higher mean score for asks for help (M= 2.85) than the experimental condition (M= 2.05). The difference was significant t (36) = -2.01, p<.05. These findings suggest that differences at Time 3 may be the result of more serious behavior problems with swearing and asking for help at Time 1 in the experimental condition.
TABLE 3.6
BEHAVIOR RATING SCALE FOR CHILDREN
Comparison of Experimental and Control Conditions at Time 1

<table>
<thead>
<tr>
<th>Variable</th>
<th>Experimental Condition Mean</th>
<th>Control Condition Mean</th>
<th>T (df)</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Happy or relaxed</td>
<td>2.43</td>
<td>2.87</td>
<td>-1.01 (27)</td>
<td>.32</td>
</tr>
<tr>
<td>Hides thoughts, feelings</td>
<td>3.14</td>
<td>2.87</td>
<td>-.53 (27)</td>
<td>.60</td>
</tr>
<tr>
<td>Say or so strange things</td>
<td>2.64</td>
<td>3.42</td>
<td>1.52 (26)</td>
<td>.14</td>
</tr>
<tr>
<td>Not pay attention</td>
<td>2.29</td>
<td>2.46</td>
<td>.37 (27)</td>
<td>.71</td>
</tr>
<tr>
<td>Quit a job</td>
<td>2.57</td>
<td>2.87</td>
<td>.56 (27)</td>
<td>.58</td>
</tr>
<tr>
<td>Get along well</td>
<td>3.19</td>
<td>3.23</td>
<td>-.13 (27)</td>
<td>.90</td>
</tr>
<tr>
<td>Hit, push or hurt</td>
<td>2.79</td>
<td>3.07</td>
<td>.58 (27)</td>
<td>.56</td>
</tr>
<tr>
<td>Get along poorly</td>
<td>2.71</td>
<td>3.47</td>
<td>1.69 (27)</td>
<td>.10+</td>
</tr>
<tr>
<td>Get very upset</td>
<td>2.21</td>
<td>2.33</td>
<td>.33 (27)</td>
<td>.75</td>
</tr>
<tr>
<td>Compliment or help</td>
<td>3.00</td>
<td>2.64</td>
<td>.79 (26)</td>
<td>.44</td>
</tr>
<tr>
<td>Feel sick</td>
<td>4.64</td>
<td>3.67</td>
<td>-2.26 (27)</td>
<td>.44</td>
</tr>
<tr>
<td>Cheat</td>
<td>3.79</td>
<td>4.15</td>
<td>.73 (26)</td>
<td>.47</td>
</tr>
<tr>
<td>Lose temper</td>
<td>2.07</td>
<td>2.27</td>
<td>.56 (27)</td>
<td>.58</td>
</tr>
</tbody>
</table>

+p < .10

A significant difference between the experimental and control conditions at Time 1 was found on one variable, get along poorly with others, \( t (27) = 1.69, p < .10 \), with the control condition having a higher mean score. With the exception of getting along poorly with others, the two conditions were not significantly different on the BRIC.

In summary, at Time I there were several differences between the two conditions on these measures that need to be considered in evaluating the effects of the intervention at Time 3.
Comparison of Conditions
Paired Sample T-Tests
Mean Change at Time 1, Time 2, and Time 3

Initial analysis of mean change in behaviors was completed using two tailed paired sample t-tests for continuous variables in the TRF and BRIC at the three data collection times for experimental and control conditions. In the experimental condition, Time 1 to Time 2 mean change is reflective of change after exposure to the intervention, and Time 1-3 is reflective of mean change from pretest (Time1) through the end of the intervention period (Time3). These values are shown in table 7.7 and 7.8. In the control condition, Time 2-Time 3 mean change is reflective of change from the time of crossover to exposure to the intervention (Time 2) through the period of intervention (Time3). These values are shown in table 7.9 and 7.10. The N’s reflect the number of pairs of returned questionnaires at each data collection point, which varied. Cases with missing data at either time were excluded.
### TABLE 3.7
**Paired Sample T-Tests Teachers Report Form**

Experimental Condition, Time 1-Time 2, Time 1-Time 3

<table>
<thead>
<tr>
<th>VARIABLES</th>
<th>TIME 1-TIME 3</th>
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<th></th>
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<th></th>
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<td>Time 2</td>
<td>Time 3</td>
<td>T (DF)</td>
<td>Sig.</td>
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</tr>
<tr>
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<td>-1.70 (15)</td>
<td>.11</td>
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</tr>
<tr>
<td>Disrupts</td>
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<td>2.67</td>
<td>2.75</td>
<td>-.900 (17)</td>
<td>.38</td>
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<td>-.89 (15)</td>
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<td>-1.37 (17)</td>
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<td>Hyperactive</td>
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<td>3.17</td>
<td>3.31</td>
<td>-2.36 (17)</td>
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<td>-1.60 (15)</td>
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<td>.78 (17)</td>
<td>.45</td>
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<td>.40 (15)</td>
<td>.69</td>
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</tr>
<tr>
<td>Talks back</td>
<td>3.00</td>
<td>2.83</td>
<td>3.25</td>
<td>.83 (17)</td>
<td>.42</td>
<td></td>
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<tr>
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<td>-.46 (15)</td>
<td>.65</td>
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</tr>
<tr>
<td>Shows off</td>
<td>3.00</td>
<td>3.11</td>
<td>3.19</td>
<td>-.70 (17)</td>
<td>.50</td>
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<tr>
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<td>.00 (15)</td>
<td>1.00</td>
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<td></td>
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<td>Asks for help</td>
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<td>2.11</td>
<td>2.13</td>
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<td>.77</td>
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<td>-.82 (15)</td>
<td>.42</td>
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<tr>
<td>Does not participate</td>
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<td>3.67</td>
<td>3.81</td>
<td>-1.93 (17)</td>
<td>.07+</td>
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<td>-1.33 (15)</td>
<td>.20</td>
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<td></td>
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</tr>
<tr>
<td>Talks without ask</td>
<td>2.67</td>
<td>2.83</td>
<td>2.31</td>
<td>-1.14 (17)</td>
<td>.27</td>
<td></td>
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<td>1.23 (15)</td>
<td>.24</td>
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<td>No supplies</td>
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<td>3.38</td>
<td>3.50</td>
<td>-.24 (17)</td>
<td>.82</td>
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<td></td>
<td>-.46 (15)</td>
<td>.65</td>
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<tr>
<td>Aggressive</td>
<td>3.11</td>
<td>3.17</td>
<td>3.38</td>
<td>-.37 (17)</td>
<td>.71</td>
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<tr>
<td></td>
<td>-.82 (15)</td>
<td>.42</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Unhappy</td>
<td>3.00</td>
<td>3.06</td>
<td>3.31</td>
<td>-.29 (17)</td>
<td>.77</td>
<td></td>
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<tr>
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<td>-.52 (15)</td>
<td>.60</td>
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</tbody>
</table>

+ p< .10, *p< .05,

Note: N’s may vary slightly from times due to missing responses, which caused small variation in means.
## TABLE 3.8
Paired Sample T-Tests, Behavior Rating Index for Children
Experimental Condition, Time 1-Time 2, Time 1-Time3

<table>
<thead>
<tr>
<th>VARIABLES</th>
<th>TIME 1</th>
<th>TIME 2</th>
<th>TIME 3</th>
<th>TIME 1-TIME 2</th>
<th>TIME 1-TIME 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>BRIC</td>
<td>Mean</td>
<td>Mean</td>
<td>Mean</td>
<td>T (DF)</td>
<td>Sig.</td>
</tr>
<tr>
<td>(DF)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Happy, relaxed</td>
<td>2.53</td>
<td>2.92</td>
<td>3.73</td>
<td>-.79 (12)</td>
<td>.44</td>
</tr>
<tr>
<td></td>
<td>.005*</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Hides thoughts, feel</td>
<td>3.23</td>
<td>2.46</td>
<td>3.33</td>
<td>1.87 (12)</td>
<td>.06+</td>
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<tr>
<td></td>
<td>-.17 (10)</td>
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<td></td>
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<tr>
<td>Say, do strange things</td>
<td>2.77</td>
<td>3.08</td>
<td>3.00</td>
<td>-.08 (12)</td>
<td>.30</td>
</tr>
<tr>
<td></td>
<td>-.56 (10)</td>
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<td></td>
</tr>
<tr>
<td>Not pay attention</td>
<td>2.38</td>
<td>2.61</td>
<td>2.91</td>
<td>-.33 (12)</td>
<td>.63</td>
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<tr>
<td></td>
<td>-.52 (10)</td>
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<td>Quit</td>
<td>2.69</td>
<td>2.77</td>
<td>2.81</td>
<td>-.15 (12)</td>
<td>.88</td>
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<tr>
<td></td>
<td>.30 (10)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Get along well</td>
<td>3.15</td>
<td>3.38</td>
<td>3.45</td>
<td>.71 (12)</td>
<td>.49</td>
</tr>
<tr>
<td></td>
<td>1.31 (10)</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Hit, push or hurt</td>
<td>3.08</td>
<td>3.31</td>
<td>3.36</td>
<td>-.45 (12)</td>
<td>.66</td>
</tr>
<tr>
<td></td>
<td>-.14 (10)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Get along poorly</td>
<td>2.85</td>
<td>3.00</td>
<td>3.40</td>
<td>-.49 (12)</td>
<td>.64</td>
</tr>
<tr>
<td></td>
<td>1.71 (10)</td>
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<tr>
<td>Get very upset</td>
<td>2.15</td>
<td>2.23</td>
<td>2.91</td>
<td>-.32 (12)</td>
<td>.75</td>
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<td>1.35 (10)</td>
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<tr>
<td>Compliment or help</td>
<td>3.00</td>
<td>3.23</td>
<td>3.36</td>
<td>-.71 (12)</td>
<td>.49</td>
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<td>1.17 (10)</td>
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<tr>
<td>Feel sick</td>
<td>4.69</td>
<td>4.46</td>
<td>3.81</td>
<td>.89 (12)</td>
<td>.39</td>
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<tr>
<td></td>
<td>1.85 (10)</td>
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<tr>
<td>Cheating</td>
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<td>4.00</td>
<td>4.54</td>
<td>.00 (12)</td>
<td>1.00</td>
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<tr>
<td></td>
<td>1.70 (10)</td>
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</tr>
<tr>
<td>Lose temper</td>
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<td>2.07</td>
<td>2.64</td>
<td>.00 (12)</td>
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<tr>
<td></td>
<td>-.80 (10)</td>
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</tbody>
</table>

+p<.10, *p<.05, **p<.01, ***p<.001

Note: N’s may vary slightly from times due to missing responses, which caused small variation in means.
TABLE 3.9  
Paired Sample T-Tests Teachers Report Form  
Control Condition, Time 2- Time 3

<table>
<thead>
<tr>
<th>VARIABLES</th>
<th>Time 2 Mean</th>
<th>Time 3 Mean</th>
<th>TIME 2-TIME 3</th>
<th>T (DF)</th>
<th>Sig.</th>
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<tbody>
<tr>
<td>TRF</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Swears</td>
<td>3.69</td>
<td>3.81</td>
<td>-.57 (15)</td>
<td>.58</td>
<td></td>
</tr>
<tr>
<td>Disrupts</td>
<td>3.31</td>
<td>3.44</td>
<td>-.79 (15)</td>
<td>.50</td>
<td></td>
</tr>
<tr>
<td>Inattentive</td>
<td>3.19</td>
<td>3.38</td>
<td>-1.145 (15)</td>
<td>.27</td>
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</tr>
<tr>
<td>Hyperactive</td>
<td>3.31</td>
<td>3.38</td>
<td>-.29 (15)</td>
<td>.77</td>
<td></td>
</tr>
<tr>
<td>Asks for passes</td>
<td>3.19</td>
<td>3.19</td>
<td>.00 (15)</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>Talks back</td>
<td>3.50</td>
<td>3.50</td>
<td>.00 (15)</td>
<td>.100</td>
<td></td>
</tr>
<tr>
<td>Shows off</td>
<td>3.44</td>
<td>3.63</td>
<td>-.90 (15)</td>
<td>.38</td>
<td></td>
</tr>
<tr>
<td>Asks for help</td>
<td>2.88</td>
<td>2.81</td>
<td>.19 (15)</td>
<td>.85</td>
<td></td>
</tr>
<tr>
<td>Does not participate</td>
<td>3.94</td>
<td>3.69</td>
<td>1.17 (15)</td>
<td>.26</td>
<td></td>
</tr>
<tr>
<td>Talks without ask</td>
<td>2.88</td>
<td>3.06</td>
<td>-.61 (15)</td>
<td>.55</td>
<td></td>
</tr>
<tr>
<td>No supplies</td>
<td>3.88</td>
<td>4.25</td>
<td>-2.42 (15)</td>
<td>.03*</td>
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</tr>
<tr>
<td>Aggressive</td>
<td>3.38</td>
<td>3.62</td>
<td>-1.17 (15)</td>
<td>.26</td>
<td></td>
</tr>
<tr>
<td>Unhappy</td>
<td>3.62</td>
<td>3.50</td>
<td>.57 (15)</td>
<td>.58</td>
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</table>

+ p< .10, *p< .05

Note: N’s may vary slightly from times due to missing responses, which caused small variation in means.
### TABLE 3.10
**Paired Sample T-Tests, Behavior Rating Index for Children**

**Control Condition, Time 2-Time3**

<table>
<thead>
<tr>
<th>VARIABLES</th>
<th>TIME 2</th>
<th>TIME 3</th>
<th>TIME 2-TIME 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>BRIC Happy, relaxed</td>
<td>3.25</td>
<td>3.58</td>
<td>-2.00 (11) .47</td>
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<tr>
<td>Hides thoughts, feel</td>
<td>2.70</td>
<td>2.10</td>
<td>1.11 (9) .30</td>
</tr>
<tr>
<td>Say, do strange things</td>
<td>3.44</td>
<td>4.00</td>
<td>-1.25 (8) .25</td>
</tr>
<tr>
<td>Not pay attention</td>
<td>2.10</td>
<td>3.20</td>
<td>-3.16 (9) .01*</td>
</tr>
<tr>
<td>Quit</td>
<td>2.60</td>
<td>2.50</td>
<td>-.15 (9) .17</td>
</tr>
<tr>
<td>Get along well</td>
<td>2.91</td>
<td>3.42</td>
<td>1.91 (11) .08+</td>
</tr>
<tr>
<td>Hit, push or hurt</td>
<td>2.75</td>
<td>3.58</td>
<td>-1.26 (11) .23</td>
</tr>
<tr>
<td>Get along poorly</td>
<td>3.30</td>
<td>3.30</td>
<td>-.00 (9) 1.00</td>
</tr>
<tr>
<td>Get very upset</td>
<td>2.60</td>
<td>3.10</td>
<td>-1.86 (11) .10+</td>
</tr>
<tr>
<td>Compliment or help</td>
<td>3.00</td>
<td>3.91</td>
<td>-1.91(11) .09+</td>
</tr>
<tr>
<td>Feel sick</td>
<td>4.00</td>
<td>4.40</td>
<td>-.94 (9) .37</td>
</tr>
<tr>
<td>Cheat</td>
<td>4.00</td>
<td>4.40</td>
<td>-1.81 (9) .10+</td>
</tr>
<tr>
<td>Lose temper</td>
<td>2.60</td>
<td>3.20</td>
<td>-2.60 (11) .05*</td>
</tr>
</tbody>
</table>

+ p < .10, *p < .05

Note: N’s may vary slightly from times due to missing responses, which caused small variation in means.
Experimental Condition

The Teachers Report Form. Thirteen behavioral variables comprise the Teachers Report Form. Eighteen of a possible twenty pairs of teacher responses in the experimental condition were analyzed. From Time 1 to Time 2, two variables, hyperactivity and does not participate showed improvement. The difference in hyperactivity was significant $t(17)=-2.36, p < .05$, and the difference in does not participate was significant $t(17)=-1.93, p < .10$. Sixteen of a possible twenty pairs of responses were analyzed from Time 1 to Time 3 and no significant differences in mean change were found at a level of significance. Improvements made after initial exposure to the intervention could not be sustained over the course of the intervention and the school year.

The Behavior Rating Index for Children. Thirteen behavior variables comprise the Behavior Rating Index for Children. Thirteen of a possible twenty pairs of questionnaires were returned by parents and analyzed for Time 1 to Time 2. One variable, hides thoughts and feelings showed mean change at a level of significance, $t(12)=1.87, <.10$, in the direction of an increase in problem behavior. For the remaining twelve variables, there was no mean change at a level of significance for this time period. Eleven pairs of a possible twenty were returned and analyzed for Time 1 and Time 3. Of the thirteen variables, improvement was found for two variables, happy and relaxed, and get along poorly. The difference in happy and relaxed was significant $t(10)=-3.52, p < .005$. The difference in gets along poorly was significant $t(10)=-1.94, p < .10$. A third variable, feels sick, mean change was also found from Time 1 to
Time 3, but showing an increase in the problem behavior rather than improvement 
\( t(10)=1.85, p<.10 \). Parents did not find their children showed improvement after 
exposure to the intervention and on one variable, hides thoughts and feelings; parents 
reported a decline in behavior. However, by Time 3, parents’ reports were mixed: they 
reported improvement in happy and relaxed, and gets along poorly, but a decline in 
feels sick.

**Control Condition**

**The Teachers Report Form.** Sixteen teacher responses of a possible twenty were 
included the analysis of Time 2-Time 3. Of the thirteen variables, one variable, no 
supplies, showed improvement at a significant level, \( t(15)=-2.42, p<.05 \).

**The Behavior Rating Index for Children.** Twelve parent responses were 
included in this analysis. Several parents did not answer all the questions; two parents 
did not answer, cheat, and one did not answer, not pay attention. Mean change 
reflecting improvement at levels of significance was found on the following variables: 
not pay attention, get very upset, compliment or help, cheat and lose temper. The 
difference in mean change after exposure to the intervention in not pay attention was 
significant \( t(9)=-3.16, p<.05 \); gets very upset \( t(11)=-1.86, p<.05 \); compliment or help 
\( t(11)=-1.91, p<.10 \); cheat \( t(9)=-1.81, p<.10 \); and lose temper \( t(11)=-2.60, p<.05 \). The 
difference in mean change in get along well was significant, \( t(11)=1.91, p<.10 \), but 
indicated an increase in the problem behavior. In summary, parents reported 
 improvement in five of the thirteen variables while reporting a decline in one variable 
after exposure to the intervention.
One-Way Repeated Measures Analysis of Variance (ANOVA)

Repeated measures ANOVA was used for further hypothesis testing; the
detection of an interaction between the condition and the outcome variables.

Table 3.11 and Table 3.12 show the significance of the F Tests in the Teachers
Report Form and the Behavior Rating Index for Children for experimental and control
conditions from Time 1 to Time 2.

**TABLE 3.11**
Teachers Report Form
Repeated ANOVA
Time 1-Time 2 examining variation between conditions on 13 items:

<table>
<thead>
<tr>
<th>Items</th>
<th>F (df)</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Item 1: Swears</td>
<td>F (1, 34) = 1.49</td>
<td>.23</td>
</tr>
<tr>
<td>Swears*condition</td>
<td>F (1, 34) = .17</td>
<td>.69</td>
</tr>
<tr>
<td>Item 2: Disrupts</td>
<td>F (1, 34) = 4.64</td>
<td>.03*</td>
</tr>
<tr>
<td>Disrupts*condition</td>
<td>F (1, 34) = .52</td>
<td>.48</td>
</tr>
<tr>
<td>Item 3: Inattention</td>
<td>F (1, 34) = 1.60</td>
<td>.22</td>
</tr>
<tr>
<td>Inattention*condition</td>
<td>F (1, 34) = .40</td>
<td>.53</td>
</tr>
<tr>
<td>Item 4: Hyperactive</td>
<td>F (1, 34) = 5.63</td>
<td>.02*</td>
</tr>
<tr>
<td>Hyperactive*condition</td>
<td>F (1, 34) = .90</td>
<td>.35</td>
</tr>
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<td>Item 5: Pass</td>
<td>F (1, 34) = .02</td>
<td>.89</td>
</tr>
<tr>
<td>Pass*condition</td>
<td>F (1, 34) = .93</td>
<td>.34</td>
</tr>
<tr>
<td>Item 6: Talks back</td>
<td>F (1, 34) = .00</td>
<td>1.00</td>
</tr>
<tr>
<td>Talks back*condition</td>
<td>F (1, 34) = 1.62</td>
<td>.21</td>
</tr>
<tr>
<td>Item 7: Shows</td>
<td>F (1, 34) = .64</td>
<td>.43</td>
</tr>
<tr>
<td>Shows*condition</td>
<td>F (1, 34) = .00</td>
<td>1.00</td>
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<td>Item 8: Help</td>
<td>F (1, 34) = .98</td>
<td>.33</td>
</tr>
<tr>
<td>Help*condition</td>
<td>F (1, 34) = .25</td>
<td>.62</td>
</tr>
<tr>
<td>Item 9: Nonparticipation</td>
<td>F (1, 34) = 3.66</td>
<td>.06*</td>
</tr>
</tbody>
</table>
Nonparticipation*condition  F (1, 34) = .54  .47  
10: Talkwo  F (1, 34) = .48  .83  
  Talkwo*condition  F (1, 34) = 2.36  .13  
11: No supplies  F (1, 34) = 4.10  .05+  
  No supplies*condition  F (1, 34) = 2.93  .10+  
12: Aggressive  F (1, 34) = .318  .58  
  Aggressive*condition  F (1, 34) = .04  .85  
13: Unhappy  F (1, 34) = 2.07  .16  
  Unhappy*condition  F (1, 34) = 1.16  .29  

+ p <.10, * p<.05

All effects are reported at p<.10. There was a significant main effect for: disrupts  F (1, 34) = 4.64, p<.05, hyperactive  F (1, 34) = 5.63, p<.05, nonparticipation  F (1, 34) = 3.66, p<.10 and no supplies  F (1, 34) = 4.10, p<.10. There was a significant interaction between condition and no supplies,  F (1, 34) = 2.93, p<.10. This finding indicates that condition had different effect on this variable and that the experimental condition did better in coming to school prepared with supplies.

### TABLE 3.12
Behavior Rating Index for Children
Repeated ANOVA
Time 1-Time 2 examining variation between conditions on 13 items:

<table>
<thead>
<tr>
<th>Items:</th>
<th>F (df)</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Item 1. Happy</td>
<td>F (1, 24) = 2.64</td>
<td>.12</td>
</tr>
<tr>
<td>Happy*condition</td>
<td>F (1, 24) = .07</td>
<td>.79</td>
</tr>
<tr>
<td>2. Hides</td>
<td>F (1, 23) = 3.34</td>
<td>.08+</td>
</tr>
<tr>
<td>Hides*condition</td>
<td>F (1, 23) = 2.16</td>
<td>.16</td>
</tr>
<tr>
<td>3. Says</td>
<td>F (1, 22) = .43</td>
<td>.52</td>
</tr>
<tr>
<td>Says*condition</td>
<td>F (1, 23) = .43</td>
<td>.52</td>
</tr>
</tbody>
</table>
4. No attention  \( F(1, 23) = .01 \)  .91
   No attention*condition  \( F(1, 23) = .44 \)  .49

5. Quit  \( F(1, 23) = .17 \)  .68
   Quit*condition  \( F(1, 23) = .74 \)  .52

6. Get along well  \( F(1, 23) = .02 \)  .90
   Get along well*condition  \( F(1, 33) = .39 \)  .54

7. Hit, push  \( F(1, 23) = 2.49 \)  .13
   Hit, push*condition  \( F(1, 23) = .10 \)  .75

8. Get along poorly  \( F(1, 23) = .41 \)  .52
   Get along poorly*condition  \( F(1, 23) = .001 \)  .98

9. Get upset  \( F(1, 23) = .20 \)  .17
   Get upset*condition  \( F(1, 23) = .56 \)  .31

10. Compliment  \( F(1, 23) = 1.13 \)  .30
    Compliment*condition  \( F(1, 23) = .09 \)  .76

11. Sick  \( F(1, 24) = .74 \)  .39
    Sick*condition  \( F(1, 24) = 3.13 \)  .09+

12. Cheat  \( F(1, 23) = .29 \)  .59
    Cheat*condition  \( F(1, 23) = .29 \)  .59

13. Temper  \( F(1, 23) = .11 \)  .74
    Temper*condition  \( F(1, 23) = .11 \)  .74

\[ + p < .1, \ * p < .05 \]
Like the TRF, all effects are reported at \( p < .10 \). There was a significant effect for:

hides thoughts and feelings  \( F(1, 23) = 3.34, p < .10 \). There were no significant interaction effects for the BRIC for Time 1- Time 2 for either condition.

Table 3.13 and Table 3.14 show the score differences between the experimental and control conditions at Time 3, after both groups were exposed to the
intervention using repeat measures ANOVA for the Teachers Report Form and the Behavior Rating Index.

### TABLE 3.13
**Teachers Report Form**
**Repeated ANOVA**
**Time2-Time 3 examining variation between conditions on 13 items:**

<table>
<thead>
<tr>
<th>Items</th>
<th>F (df)</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Swears</td>
<td>F (1, 30) = 1.06</td>
<td>.31</td>
</tr>
<tr>
<td>Swears*condition</td>
<td>F (1, 30) = .04</td>
<td>.84</td>
</tr>
<tr>
<td>2. Disrupts</td>
<td>F (1, 30) = .48</td>
<td>.50</td>
</tr>
<tr>
<td>Disrupts*condition</td>
<td>F (1, 30) = .52</td>
<td>.48</td>
</tr>
<tr>
<td>3. Inattention</td>
<td>F (1, 30) = 1.30</td>
<td>.73</td>
</tr>
<tr>
<td>Inattention*condition</td>
<td>F (1, 30) = 2.00</td>
<td>.67</td>
</tr>
<tr>
<td>4. Hyperactive</td>
<td>F (1, 30) = .50</td>
<td>.83</td>
</tr>
<tr>
<td>Hyperactive*condition</td>
<td>F (1, 30) = .50</td>
<td>.83</td>
</tr>
<tr>
<td>5. Pass</td>
<td>F (1, 30) = .01</td>
<td>.91</td>
</tr>
<tr>
<td>Pass*condition</td>
<td>F (1, 30) = .01</td>
<td>.91</td>
</tr>
<tr>
<td>6. Talks back</td>
<td>F (1, 30) = .76</td>
<td>.14</td>
</tr>
<tr>
<td>Talks back*condition</td>
<td>F (1, 30) = .76</td>
<td>.14</td>
</tr>
<tr>
<td>7. Shows</td>
<td>F (1, 30) = .12</td>
<td>.73</td>
</tr>
<tr>
<td>Shows*condition</td>
<td>F (1, 30) = .48</td>
<td>.50</td>
</tr>
<tr>
<td>8. Help</td>
<td>F (1, 30) = .00</td>
<td>1.00</td>
</tr>
<tr>
<td>Help*condition</td>
<td>F (1, 30) = .13</td>
<td>.73</td>
</tr>
<tr>
<td>9. Nonparticipation</td>
<td>F (1, 30) = .52</td>
<td>.49</td>
</tr>
<tr>
<td>Nonparticipation*condition</td>
<td>F (1, 30) = .52</td>
<td>.49</td>
</tr>
<tr>
<td>10. Talkwo</td>
<td>F (1, 30) = .55</td>
<td>.46</td>
</tr>
<tr>
<td>Talkwo*condition</td>
<td>F (1, 30) = 2.67</td>
<td>.11</td>
</tr>
<tr>
<td>11: No supplies</td>
<td>F (1, 30) = 2.46</td>
<td>.13</td>
</tr>
<tr>
<td>No supplies*condition</td>
<td>F (1, 30) = 1.25</td>
<td>.11</td>
</tr>
</tbody>
</table>
No main effects or interactions were found on the TRF for Time 2- Time 3.

### TABLE 3.14
Behavior Rating Index for Children
Repeated ANOVA
Time 2-Time 3 examining variation between conditions on 13 items using recoded variables:

<table>
<thead>
<tr>
<th>Items:</th>
<th>F (df)</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Item 1. Happy</td>
<td>F (1, 22) = 4.00</td>
<td>.06+</td>
</tr>
<tr>
<td>Happy*condition</td>
<td>F (1, 22) = .87</td>
<td>.36</td>
</tr>
<tr>
<td>2. Hides</td>
<td>F (1, 20) = .70</td>
<td>.41</td>
</tr>
<tr>
<td>Hides*condition</td>
<td>F (1, 20) = 6.8</td>
<td>.02*</td>
</tr>
<tr>
<td>3. Says</td>
<td>F (1, 19) = .41</td>
<td>.53</td>
</tr>
<tr>
<td>Says*condition</td>
<td>F (1, 19) = 2.82</td>
<td>.11</td>
</tr>
<tr>
<td>4. No attention</td>
<td>F (1, 20) = 2.23</td>
<td>.15</td>
</tr>
<tr>
<td>No attention*condition</td>
<td>F (1, 20) = 4.11</td>
<td>.06+</td>
</tr>
<tr>
<td>5. Quit</td>
<td>F (1, 20) = .06</td>
<td>.82</td>
</tr>
<tr>
<td>Quit*condition</td>
<td>F (1, 20) = .00</td>
<td>.98</td>
</tr>
<tr>
<td>6. Get along well</td>
<td>F (1, 22) = 1.44</td>
<td>.24</td>
</tr>
<tr>
<td>Get along well*condition</td>
<td>F (1, 33) = 1.44</td>
<td>.24</td>
</tr>
<tr>
<td>7. Hit, push</td>
<td>F (1, 20) = 1.09</td>
<td>.30</td>
</tr>
<tr>
<td>Hit, push*condition</td>
<td>F (1, 20) = .47</td>
<td>.50</td>
</tr>
<tr>
<td>8. Get along poorly</td>
<td>F (1, 19) = .28</td>
<td>.60</td>
</tr>
<tr>
<td>Get along poorly*condition</td>
<td>F (1, 19) = .28</td>
<td>.60</td>
</tr>
<tr>
<td>9. Get upset</td>
<td>F (1, 20) = 4.76</td>
<td>.04</td>
</tr>
<tr>
<td>Get upset*condition</td>
<td>F (1, 20) = .10</td>
<td>.76</td>
</tr>
</tbody>
</table>
There was a significant main effect for: happy and relaxed, $F(1, 22) = 4.00, p<.10$, and cheats, $F(1, 20) = 7.27, p=.01$. There were significant interaction effects between condition and no attention, $F(1, 20) = 4.11, p<.10$, and condition and sick., indicating different effects on the items depending on condition. In condition and no attention, the experimental condition showed more improvement than the control condition, while in condition and sick, the control condition showed more improvement.

Tables 3.15 and 3.16 show the score differences between the experimental and control conditions from Time1- Time 3 after both groups were exposed to the intervention using repeat measures ANOVA for the Teachers Report Form and the Behavior Rating Index. The experimental condition received the intervention from the first week in December 2005 through June 2006; the control condition “crossed over” to the experimental condition and received the intervention from the last week in February 2006 through June 2006.
### TABLE 3.15

**Teachers Report Form**  
Repetitive ANOVA  
**Time 1-Time 3 examining variation between conditions on 13 items:**

<table>
<thead>
<tr>
<th>Items</th>
<th>F (df)</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Swears</td>
<td>F (2, 60) = 2.16</td>
<td>.12</td>
</tr>
<tr>
<td>Swears*condition</td>
<td>F (2, 60) = .09</td>
<td>.92</td>
</tr>
<tr>
<td>2. Disrupts</td>
<td>F (2, 60) = 2.44</td>
<td>.10+</td>
</tr>
<tr>
<td>Disrupts*condition</td>
<td>F (2, 60) = .24</td>
<td>.79</td>
</tr>
<tr>
<td>3. Inattention</td>
<td>F (1.4, 43.3) = .20</td>
<td>.81</td>
</tr>
<tr>
<td>Inattention*condition</td>
<td>F (1.4, 43.3) = 1.38</td>
<td>.26</td>
</tr>
<tr>
<td>4. Hyperactive</td>
<td>F (2, 60) = 3.34</td>
<td>.04*</td>
</tr>
<tr>
<td>Hyperactive*condition</td>
<td>F (2, 60) = .39</td>
<td>.68</td>
</tr>
<tr>
<td>5. Asks for passes</td>
<td>F (1.7, 50.4) = .01</td>
<td>.75</td>
</tr>
<tr>
<td>Asks for passes*condition</td>
<td>F (1.7, 50.4) = .35</td>
<td>.26</td>
</tr>
<tr>
<td>6. Talks back</td>
<td>F (1.6, 49.1) = .99</td>
<td>.38</td>
</tr>
<tr>
<td>Talks back*condition</td>
<td>F (1.6, 49.1) =1.44</td>
<td>.25</td>
</tr>
<tr>
<td>7. Shows off</td>
<td>F (2, 60) = .42</td>
<td>.66</td>
</tr>
<tr>
<td>Shows off*condition</td>
<td>F (2, 60) = .46</td>
<td>.63</td>
</tr>
<tr>
<td>8. Requires a lot of help</td>
<td>F (1.5, 44.7) = .20</td>
<td>.75</td>
</tr>
<tr>
<td>Requires a lot of help*condition</td>
<td>F (1.5, 44.7) = .16</td>
<td>.79</td>
</tr>
<tr>
<td>9. Quiet, nonparticipation</td>
<td>F (2, 60) = 1.81</td>
<td>.17</td>
</tr>
<tr>
<td>Quiet, nonparticipation*condition</td>
<td>F (2, 60) = .78</td>
<td>.46</td>
</tr>
<tr>
<td>10. Talks without waiting</td>
<td>F (1.6, 46.5) =.50</td>
<td>.57</td>
</tr>
<tr>
<td>Talks without waiting*condition</td>
<td>F (1.6, 46.5) =1.80</td>
<td>.18</td>
</tr>
<tr>
<td>11. No supplies</td>
<td>F (2, 60) = 4.36</td>
<td>.02*</td>
</tr>
<tr>
<td>No supplies*condition</td>
<td>F (2, 60) = 2.57</td>
<td>.09+</td>
</tr>
<tr>
<td>12. Aggressive</td>
<td>F (2, 60) = 1.51</td>
<td>.23</td>
</tr>
<tr>
<td>Aggressive*condition</td>
<td>F (2, 60) = .09</td>
<td>.91</td>
</tr>
<tr>
<td>13. Unhappy</td>
<td>F (2, 60) = .70</td>
<td>.50</td>
</tr>
</tbody>
</table>
Unhappy*condition  F (2, 60) = .87  .42

+p<.10, *p< .05

There were significant main effects for disrupts,  F (2, 60) = 2.44, p<.10, hyperactive,  F (2, 60) = 3.34, p<.05, and no supplies,  F (2, 60) = 4.36, p<.05. There was a significant interaction effect for no supplies,  F (2, 60) = 2.57, p<.10, indicating a different effect based on condition. The experimental condition showed greater improvement than the control condition.

Mauchly’s test indicated that the assumption of sphericity had been violated and was corrected using Greenhouse-Geisser estimates for the following: inattention, talks back, asks for passes, requires a lot of help, and talks without waiting.

### TABLE 3.16
Behavior Index for Children
Time 1-Time 3 Repeated ANOVA variation between conditions on 13 items:

<table>
<thead>
<tr>
<th>Items</th>
<th>F (df)</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Item</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Happy</td>
<td>F (2, 40 )= 6.52</td>
<td>.004**</td>
</tr>
<tr>
<td>Happy*condition</td>
<td>F (2, 40) =.60</td>
<td>.56</td>
</tr>
<tr>
<td>2. Hides thought, feelings</td>
<td>F (2, 38) = 1.56</td>
<td>.22</td>
</tr>
<tr>
<td>Hides thoughts, feelings*condition</td>
<td>F (2, 38) = 3.06</td>
<td>.06+</td>
</tr>
<tr>
<td>3. Says or does strange</td>
<td>F (2, 36) = .59</td>
<td>.56</td>
</tr>
<tr>
<td>Says or does*condition</td>
<td>F (2, 36) = 1.72</td>
<td>.19</td>
</tr>
<tr>
<td>4. Not pay attention</td>
<td>F (2, 38) = 2.24</td>
<td>.12</td>
</tr>
<tr>
<td>Not pay attention*condition</td>
<td>F (2, 38) = 1.25</td>
<td>.30</td>
</tr>
<tr>
<td>5. Quit a job</td>
<td>F (2, 38) = .18</td>
<td>.84</td>
</tr>
<tr>
<td>Quit a job*condition</td>
<td>F (2, 38) = .01</td>
<td>.99</td>
</tr>
<tr>
<td>Variable</td>
<td>F (df)</td>
<td>p-value</td>
</tr>
<tr>
<td>--------------------------------</td>
<td>-----------</td>
<td>---------</td>
</tr>
<tr>
<td>Get along well</td>
<td>F (2, 40) = 1.09</td>
<td>.35</td>
</tr>
<tr>
<td>Get along well*condition</td>
<td>F (2, 40) = .53</td>
<td>.59</td>
</tr>
<tr>
<td>Hit, push</td>
<td>F (2, 40) = 2.64</td>
<td>.08+</td>
</tr>
<tr>
<td>Hit, push*condition</td>
<td>F (2, 40) = .12</td>
<td>.89</td>
</tr>
<tr>
<td>Get along poorly</td>
<td>F (2, 36) = 1.68</td>
<td>.20</td>
</tr>
<tr>
<td>Get along poorly*condition</td>
<td>F (2, 36) = .62</td>
<td>.55</td>
</tr>
<tr>
<td>Get upset</td>
<td>F (2, 38) = 4.87</td>
<td>.01*</td>
</tr>
<tr>
<td>Get upset*condition</td>
<td>F (2, 38) = .27</td>
<td>.76</td>
</tr>
<tr>
<td>Compliment others</td>
<td>F (2, 38) = 3.81</td>
<td>.03*</td>
</tr>
<tr>
<td>Compliment others*condition</td>
<td>F (2, 38) = 1.08</td>
<td>.35</td>
</tr>
<tr>
<td>Feel sick</td>
<td>F (1.5, 28.4) = .34</td>
<td>.71</td>
</tr>
<tr>
<td>Feel sick*condition</td>
<td>F (1.5, 28.4) = 4.34</td>
<td>.03*</td>
</tr>
<tr>
<td>Cheat</td>
<td>F (1.5, 27) = 5.16</td>
<td>.02*</td>
</tr>
<tr>
<td>Cheat*condition</td>
<td>F (1.5, 27) = .20</td>
<td>.75</td>
</tr>
<tr>
<td>Temper</td>
<td>F (2, 40) = 3.51</td>
<td>.04*</td>
</tr>
<tr>
<td>Temper*condition</td>
<td>F (2, 40) = .76</td>
<td>.47</td>
</tr>
</tbody>
</table>

*p< .10, *p<.05, **p< .01,

There were significant main effects for: happy, F (2, 40) = 6.52, p< .01, hit/push, F (2, 40) = 2.64, p< .10, upset, F (2, 38) = 4.87, p< .05, compliment others, F (2, 38) = 3.81, p< .05, cheat, F (1.5, 27) = 5.16, p< .05, and temper, F (2, 40) = 3.51, p< .05 were significantly affected by the intervention. There were significant main effects for two of the variables: hides, F (2, 38) = 3.06, p< .10 and feels sick, F (1.5, 28.4) = 4.34, p< .05 indicating a different effect based on condition. The experimental condition showed more improvement than the control condition. Mauchly’s test
indicated that the assumption of sphericity had been violated and the degrees of
freedom were corrected using Greenhouse-Geisser estimates for cheat and feels sick.

The Summated Scales and Subscales of the Teachers Report Form and the

Behavior Rating Index

The summated scores on the TRF and the BRIC and the externalizing subscales
for the TRF and the BRIC were analyzed using repeated analysis of variance. There was
a significant main effect for the summated full TRF, $F(2, 60) = 4.00, p < .05$. No
significant interaction effect with condition was found. There was a significant main
effect for the summated BRIC (excluding happy or relaxed, gets along well, and
commits others, $F(2, 40) = 3.17, p < .10$. There was no significant interaction effect
when condition was added.

Using repeated ANOVA’s for the TRF externalizing subscale comprised of
swears, disrupt, hyperactivity, talks, shows, and aggression, there was a significant main
effect, $F(2, 60) = 2.60, p < .10$. When condition was added, no significant interaction,
$F(2, 60) = .33, p > .10$. The BRIC externalizing subscale used the following items:
says, no attention, hit/push, get along poorly, upset, and cheat. There was a significant
main effect for the BRIC externalizing subscale, $F(2, 40) = 6.88, p < .05$. When
condition was added, there was not significant interaction effect, $F(2, 40) = .84, p > .10$.

In summary, for the TRF and the BRIC and the two subscales, main effects showing
improvements were found at level of significance of $p < .10$. However, there were no
significant effects indicating a difference in response to the intervention based on
condition.
The final analysis of the TRF and the BRIC determined whether the intervention had different effects for the different subgroups of participants. This result of this analysis was that in the group of students who were one standard deviation below the mean at pretest (Time 1), there was an interaction effect, $F(2, 40) = 7.66, p < .05$ with condition and the BRIC externalizing subscale. This finding indicates that the participants whose behaviors were more serious than the others had made more behavioral progress.

Table 3.17

FUNCTIONAL READING AND MATH

Repeated ANOVA’s

<table>
<thead>
<tr>
<th>Variable</th>
<th>Time 1- Time 3 examining variations between conditions:</th>
<th>F (df)</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>STAR Math</td>
<td></td>
<td>$F(1, 35) = 3.80$</td>
<td>.06+</td>
</tr>
<tr>
<td>STAR Math*Condition</td>
<td></td>
<td>$F(1, 35) = 2.22$</td>
<td>.15</td>
</tr>
<tr>
<td>STAR Early Literacy</td>
<td></td>
<td>$F(1, 9) = 10.18$</td>
<td>.01*</td>
</tr>
<tr>
<td>STAR Early*Literacy Cond.</td>
<td></td>
<td>$F(1, 9) = .20$</td>
<td>.67</td>
</tr>
<tr>
<td>STAR Reading</td>
<td></td>
<td>$F(1, 20) = 3.80$</td>
<td>.07+</td>
</tr>
<tr>
<td>STAR Reading*Condition</td>
<td></td>
<td>$F(1, 20) = .04$</td>
<td>.85</td>
</tr>
</tbody>
</table>

+ p < .10, * p < .05

Repeated ANOVA’s were used to analyze the difference in change between conditions in academic progress variables. There were significant main effects for math, $F(1, 35) = 3.80, p < .10$, but no interaction effect with condition, $F(1, 35) = 2.22, p > .10$. The results for both reading tests yielded the same results significant main effects only: early literacy, $F(1, 9) = 10.18, p = .01$, reading, $F(1, 20) = 3.80, p < .10$.  

94
There were no interaction effects with condition: early literacy, $F(1, 20) = p > .10$, and reading, $F(1, 20) = .04$, $p > .10$.

The findings indicate that the participants in both conditions made gains in behaviors on the TRF, the BRIC and the summated and externalizing scales of both measures. The participants in both conditions also made improvements in academic skill development. In comparing the progress of the experimental condition with the crossover condition, the study did not find a statistical difference. A discussion of the results and lack of differences between the conditions follows in the discussion chapter.
CHAPTER 4

DISCUSSION CHAPTER

The purpose of this study was to evaluate a school-based case management intervention for children with emotional and behavioral disabilities. The underlying theory of the intervention was that when parents are engaged in working with the school to help their children who have serious behavior problems, the causal processes in early school leave such as delinquency, drug abuse, underemployment and violent crime can be interrupted and the children in turn will be more successful in school (Brewer et al., 1995; Fleming et al., 2005). The key strategy of the intervention was teachers and social workers engagement with parents to work together to achieve jointly developed behavioral and academic goals. The following are examples of the concerns of parents chose to work on with the school staff:

Parents from Rotterdam I, grades K-5:

- “I want him to stop and think before reacting”
- “better behavior”
- “I want to reduce the power struggles and help him cope better”
- “better self-control, help with getting the right medication and doctor”
- “help with more independence in dressing and toileting, and less angry”
- “learn to use the bathroom”
- “not so aggressive when angry or bored-she broke the TV”
- “use words and express himself when angry”

Parents from Rotterdam II, grades 6-8:

- “help with the sadness inside him”
- “get hooked up with traumatic brain injury (TBI) resources; the weekends and vacations are hard”
- “what to do when he gets angry, incentives to handle his bowel problem, cope with his demands for attention”
• “he needs a safe place to stop hurting himself, make friends”
• “I know he can’t read”
• “provide discipline and find some social activities”

The primary research question was whether the intervention was associated with a greater increase in grades and a decrease in anti-social and aggressive behaviors in a population of children with emotional and behavioral disabilities that were placed in segregated placements than those who do not receive this intervention.

In the methodology chapter, eight hypotheses were made regarding the influence of the intervention. The first three hypotheses examined data provided by teachers about behaviors observed in classes on the full Teachers Report Form (TRF), the summated scale of the TRF and the externalizing scale of the TRF.

The first hypothesis examined whether the participants in the experimental group showed greater improvement than the control group in the behaviors on the Teacher Report Form (TRF). At posttest, there was no difference in improvement between groups.

The second hypothesis examined whether the experimental group showed greater improvement than the control group on the summated TRF scale using all items. Both of the conditions showed some improvement, but at posttest, there was no statistically significant difference between groups. The students who started out lowest made the greatest gains.

The third hypothesis examined whether the experimental group showed greater improvement than the control group on the externalizing subscale of the TRF. These
are the behaviors that are most disruptive to instruction to teachers. The same results were found: all of the children improved with no significant difference between groups.

The lack of difference between groups on the TRF may be related to the overall effect of the intervention, which supported the staff as well as students and parents. As teachers were supported in managing the behaviors through increased collaboration, the level of teaching and managing behaviors may have improved for all students, not just the experimental group. The students who started out lowest made the greatest gains behaviorally. Other studies in delinquency prevention and anti-violence research also found the most aggressive youth show the greatest intervention effects (Brewer et al., 1995). It may be that the children with the most serious problems have had the least intervention and once they are supported by a resource rich and structured program, they were able to make progress.

The next three hypotheses used data collected from parents about behaviors on the full Behavior Rating Index for Children (BRIC), the summated scale of the BRIC and the externalizing scale of the BRIC.

In testing the fourth hypothesis, whether the experimental group showed greater improvement in behaviors on the Behavior Rating Index for Children (BRIC) than the control group was examined. The same results were found: that there was no difference between groups.

Testing of the fifth hypothesis examined whether the experimental group showed greater improvement than the control group on the summated BRIC scale using all items. At posttest, there was no difference between groups.
Similarly, in testing the sixth hypothesis, the experimental group was compared with the control group on the externalizing subscale of the BRIC. The items used in this scale are the behaviors that parents find challenge their authority and are the most difficult to manage. The control group showed greater improvement than the experimental group. All children showed modest improvement, with no difference between groups.

The consistency in the findings on the behavioral variables that children in both conditions made small improvements, but there were no differences between the groups is informative about the problems associated with the interrelationship between the characteristics of the children and the setting. Children, parents and programs may face additional challenges as a result of the placement in a self-contained school.

The findings of Partners in Success are consistent with other studies in many characteristics of the participants and in the outcomes. The participants in this study have impairments in several domains: co morbid broad academic deficits, mental illness and behavioral disabilities (Hoagwood et al., 2001) like the populations in other research. Some of the studies reviewed report negative effects associated with self-contained and segregated placements (Farmer, Farmer & Gut, 1999; Zimond, 2006; Mihalic, et al., 2004). It has been found that students who exhibit severe behavior problems have been provided less effective academic instruction over time because teachers gradually reduce academic demands and expectations to avoid more conflict and disruptive behavior, making the problem worse (Sutherland & Oswald, 2005). This coercive interaction process also occurs at home. Children with emotional and
behavioral disabilities tend to elicit less than ideal parental responses to their problem behaviors, which leads to more maladaptive behaviors (Sutherland and Oswald, 2005; Mihaic et al., 2004). Parents may respond to behaviors inconsistently or by becoming overly authoritative, and also gradually withdraw. Adding to the complexity of the problem, when children are placed in programs capable of managing severe behaviors, they are often removed from the mainstream and develop new problems associated with the setting (Farmer et al., 1999; Smith & Daunic, 2004). Grouping children with what are known as “individual-level risk factors” such as abuse and neglect, behavior disorders, delinquency and aggression affect the climate of the school. Disrespect, bullying and aggression become acceptable and desired behaviors among peers (Mihalic et al., p.29). The social reinforcement provided by peers is stronger and more effective than that provided by the adults who tend to withdraw from children with these characteristics (Brendtro, Mitchell & McCall, 2007). When much needed adult support and guidance is weak, unavailable or critical, peer culture norms have a stronger influence. It is not surprising that researchers have found that placement in a special education program for emotional and behavioral disabilities is a predictor of later delinquency (Mann & Reynolds, 2006).

The final two hypotheses used data from student records about reading and math levels evaluated by the STAR Math Test, the Early Literacy Test and the STAR Reading Test.

The seventh hypothesis tested whether the experimental group showed a greater improvement in functional math skills than the control group. In testing this
hypothesis, the control group started out slightly higher than the experimental group and made more progress. Contrary to what was hypothesized, the control condition made a full year of progress where the intervention group made less than a half of year increase in skill level. The differences at pretest do not account for this outcome. At posttest, there was no difference between groups.

The eighth hypothesis tested whether the experimental group showed a greater improvement in functional reading skills than the control group. Two reading measures were used, the STAR Early Literacy Test for the younger children at the readiness level, and the STAR Reading Test for readers. The control condition had slightly higher reading levels at pretest. At posttest the experimental condition and the control condition were equal, showing both groups improved with the experimental group making greater improvement, but not a significant difference. The children who were tested using the STAR Reading Test showed a different pattern but had a similar result: the experimental condition started out at a lower level and made gains of approximately four months while the control group started out higher and also made gains of approximately four months. These findings are consistent with other studies: children with emotional and behavioral disabilities do not make the gains in reading that children with learning disabilities without emotional and behavioral disabilities make (Lane et al., 2006).

There is an important difference between the characteristics of the children in this study and the characteristics of children in national longitudinal studies. The children in Partners in Success had significantly greater than the one to two year
academic deficit found in national studies. Recent research shows a trend with an increase in segregated site placements similar to the Rotterdam programs where *Partners in Success* took place while the results in student outcomes continue to be mixed (Bradley et al., 2008). Findings of studies of children educated in these settings have shown little progress in some academic areas such as reading comprehension and regression or no progress in others, such as writing over the course of a full school year (Bradley et al., 2008). Given the intensive services and the amount of support that is provided in self-contained classes or schools, more progress was expected (Lane, Wehby, Little, & Cooley, 2005; Lane et al., 2008). A competing point of view is that with so many serious behavior problems, more attention is given to behavior management and social issues; less time is spent on curriculum. In the time allowed for academics, the instruction has been found unable to meet the multiple and at times competing needs of students with emotional and behavioral disabilities because it has been unsystematic and lacking appropriate supports (Lane et al., 2005) and therefore these results are not unexpected.

An interesting comparison was found in this study. At the three data collection points, parents and families gave their children higher behavior ratings than teachers. The lower ratings by teachers may be explained by understanding the transactional process that occurs between teachers and students where students elicit a negative response from teachers when they disrupt instruction. Parents may experience a social desirability, feel protective and want to present their children’s problems to the school in the best possible way through good ratings on the scales. Another explanation may
be that when parents were supported by the school teachers and social workers, they felt more positive about how their children were doing in school and at home.

The measures, the TRF and the BRIC seemed to measure several constructs, behaviors reported in the literature as externalizing or internalizing, which may also account for some of the differences between parent and teacher ratings. The items on the TRF were characterized by observable behaviors displayed in a school setting that are disruptive or problematic in maintaining order and instruction. In contrast, the items on the BRIC were more varied; reflective of mood or a personality characteristic, perhaps allowing for a more emotional or subjective assessment by the rater.

Most reviews of special education programs and effects on academic skills and grades have shown mixed results. In a study by Safer in 1982 of self-contained placements for youth with frequent suspensions using several of the practices used in this intervention such as frequent meetings with parents, high level of collaboration, small instruction groups, and a reward system, all returned to the regular education setting in three months (Brewer et al., 1995). In the same review studies of special education placements for elementary school students for disruptive behaviors, learning disabilities and developmental disabled children have not been found effective, but may enhance academic performance, attendance and behaviors for students at the secondary levels. Certain practices such as working with families, supporting parenting practices, behavior management interventions establishing norms, behavioral consulting with educational teams, and cognitive behavioral social competency programs have been found to be effective practices (Brewer et al., 1995; Hawkins et al., 2001; Mihalic et al.,
Social work, recreation, and instructional practices that do not use cognitive behavioral strategies have been found ineffective in reducing aggressive and anti-social behaviors (Mihalic et al., 2004). An example of a strong, well researched program of classroom interventions targeting academic failure, conduct, disorders and peer rejection that did not show a difference in scores on academic achievement tests between experimental and control groups in an evaluation of the first four years of the project was the in the Seattle Social Development Project (Hawkins et al., 2001).

**Study Strengths**

This study has several strengths. First, there was a high degree of interest and cooperation on the part of the families and the staff at the two experimental sites. Forty of a possible fifty-six families were recruited and participated in the intervention. Data from multiple sources were used to create a data base for the purpose of this study. Capital Region Board of Cooperative Educational Services allowed the use of educational records to gather demographic and referral information, which made this task easier. Teachers and many parents completed behavior questionnaires at the three time points. Finally, this study took place in a practice setting. Teachers and social workers followed the implementation guidelines to varying degrees, depending on the real world situations that arose during the intervention period. Such “real world” studies are difficult, and consequently relatively few.

The overall results of this study are encouraging because even though the hypotheses testing showing significant differences between the experimental and control conditions could not be supported by the data, the participants in the study made
improvement in functional academic levels in reading and math, and behaviors that are barriers to school success. Equally important, parents rated their children who had experienced school failure and severe behavior as making improvements, which may have an indirect and positive effect on family bonding, which in turn, may have positive long term outcomes.

**Limitations**

The present evaluation has several limitations. The first limitation is the experimental study design which is limited in its ability to isolate the intervention (Fortune & Reid, 1999) and secondly, the sample size of only forty students makes the detection of statistically significant differences more difficult. Since both the experimental and control groups were co-located and received the intervention from the same teams of teachers and social workers, completely isolating the intervention groups was not possible. Since all children were expected to receive a high level of service by contract between Capital Region Board of Cooperative Educational Services who operated the experimental sites and the referring school districts, the needs of the student and his or her family was given priority over strictly adhering to the intervention conditions, limiting control over the independent variable (Maggs & Schulenberg, 2001). The intervention period took place during one school year with the experimental condition receiving the intervention for three academic quarters and the control condition two quarters. This time frame may not be adequate to evaluate the effectiveness of the intervention for children with this level of disability. A related issue is that of dosage; the implementation of the intervention and whether the outreach
and work with the parents and families who have multiple family level risk factors (poverty, alcohol and drug abuse, health and mental illness, single family care-giver, inadequate housing, criminality, and violence in the home) was of the intensity to be effective in mediating the effects of the risk. The implementation of the interventions in the two settings had variations. The elementary school social workers did more outreach to the families by going with parents to doctors visits, home visits, and meetings at community agencies. The middle school social workers took on a more coordinating and facilitating role in their work with families, using the school as the base or center for the coordination of needed services.

A limitation in participation was the study involved only children and their parents that were referred and accepted to Rotterdam Academy I and Rotterdam. As a result, girls and minorities may have been underrepresented. The generalization of findings to other groups and settings should be done with caution due to the uniqueness of the setting.

Lastly, the case management intervention may be limited in its ability to meet the intense and pervasive needs of this population of students and their families. Many of the children in the study, more so at the middle school site, have had multiple and involuntary school moves. When the children were first placed in the Rotterdam Academies, parents were relieved for their children to have a fresh start in a supportive, resource rich school program. They were relieved to have obtained services for their children and happy to have the chance to set goals with the staff for their children. However, when the children did not respond as well as expected and behaviors did not
stabilize, it was hard for both the staff and parents to remain committed to the goals of
the intervention. More support and technical assistance for the social workers, teachers
and administrators was needed.
CHAPTER 5

IMPLICATIONS

Summary of Partners in Success

This research was an attempt to improve behavioral and academic outcomes for children with emotional and behavioral disabilities who are placed in a self-contained school program, also referred to as a segregated site educational placement. The research evaluated an intervention based on the task centered model where school social workers, teachers and parents jointly established and worked on school goals. This model has been found to be effective with children in general education and students considered “at risk” of school failure. The participants in Partners in Success were students who have emotional and behavioral disabilities, present serious behavioral challenges and are placed in the most restricted educational placement available outside residential programs. This study is the completion of the intervention and data collection that took place during the 2005-2006 school year at the Rotterdam Academies I & II.

The following research question, “Is Partners in Success, a school-based case management intervention with articulated behavioral and academic goals and strategies associated with an improvement in grades and a reduction in anti-social and aggressive behaviors for children with emotional and behavior disabilities placed in segregated placements?“ was addressed by this research. Using parent and teacher questionnaires examining both externalizing and internalizing behaviors, and standardized math and reading tests, student academic and behavioral progress was evaluated. Eight hypotheses were tested comparing the experimental condition to the crossover, or
control condition at three time points. What was found was that in many of the behavior outcome variables the participants in both conditions showed modest improvement.

The findings confirm the importance of reaching out to parents in working with children with emotional and behavioral disabilities. Progress was made in discrete variables in both conditions on the TRF and BRIC. On the TRF, children showed improvement in disruptive behaviors, hyperactivity and coming to school with needed supplies. Making progress in hyperactivity and coming to school with needed supplies requires the support and involvement with parents. On the BRIC significant progress was reflected in ratings by parents that their children were happier, less likely to hide their thoughts and feelings, less likely to hit or push others, were less upset, cheated less and were improving in controlling their tempers. The strongest finding was that parents viewed their children as happier. That parents rated their children as improved on the emotional characteristics may be an indication that parents felt more successful in knowing how to help their children when regarded as resources by the school, rather than contributors to the problem when engaged by the school.

The findings for the academic variables were mixed. In math, the students in the crossover condition made twice as much progress than the participants in the experimental condition, a finding that was unexpected. In reading, all participants made gains of approximately four months. This research used a crossover design: the experimental condition began receiving the intervention at the beginning of the second quarter; the control condition crossed over and began receiving the intervention at the
beginning of the third quarter. The intervention, the independent variable, was problematic for several reasons. All parents and students were expected to receive a quality service and while all received the intervention for the second semester of the school year, all had been receiving social work services since entering the program at the start of the school year. Therefore, it is possible that the intervention had a greater effect than is known, resulting in a Type II error. In addition, some parents who had agreed to participate in the study were unable to follow through with the intervention with consistency, which also may have affected the results. Given the level of behavioral problems and academic deficits, which in many cases was significantly greater than the year to two year deficit that has been found in multiple studies of students with EBD (Lane, Arwood, Nelson, & Wehby, 2008) this was not enough of a time difference to determine whether the intervention could account for the modest progress, a limitation that was discussed in the methodology chapter.

This study was an attempt to bring together children, their parents, school social workers and teachers, and the school system to work together in a systematic goal oriented, parent partnership rather than problem focused way. These important stakeholders may share a goal of school success but often have conflicting points of view about how to achieve it. The intervention offered a structured approach to addressing the needs of students with emotional and behavioral disabilities through ongoing meetings, home visits, planning and collaborating with parents and other service providers. The intervention was an alternative to the school counseling model
and crisis driven service delivery common in schools with a population of students with chronic and severe management needs.

**Implications for Schools Serving Children with EBD**

There is an abundance of descriptive research about the characteristics of children with EBD and many empirical studies of strategies and interventions to improve outcomes for children with this disability (Walker, 2004). It would appear we actually have a good foundation for delivering effective interventions given all that has been studied. While many of the studies have limited resources, small samples, and methodological limitations, there is a growing empirical knowledge base to inform effective practice in schools. Yet, longitudinal and national studies continue to show dismal outcomes for students with these profiles, in fact, they are worse than any other disability in terms of high school completion, unemployment, and involvement with mental health and criminal justice systems. This problem is of such importance, there is a new national research and development initiative where a consortium of universities will develop a center to study serious behavioral problems of adolescents (Samuels, 2008). A logical next step in meeting the needs of children with emotional and behavioral disabilities and their families may be a comprehensive and inclusive evaluation of the barriers to early identification and the implementation of the interventions found effective in the research.
The complexity and the stability of the behaviors and characteristics of emotional and behavioral disabilities suggest future research should be directed toward the larger environmental context in which this population is served as well as a closer evaluation of individual programs and instructional practices. The importance of looking beyond how individual children perform and evaluating how well the educational system responds to the challenges of this population is recognized by researchers. The resistance in implementing evidence based practices in schools has been documented (Walker, 2004), (Bradley et al., 2008). Examination of this resistance is needed. The results of this study suggest two possible directions for this inquiry. Given how difficult remediation is once there is a history of school failure with co-occurring behavior problems, intervening before a segregated placement is needed and is the only placement available for a student who is struggling, it makes sense to interrupt this pathway as early as possible. Early Intervention Services (EIS) allows school to use federal grant money under Individuals with Disabilities Education Act (IDEA) to provide services to children that are at risk for academic or behavioral problems (Bradley et al., 2008). This provision is used by schools for students at academic risk, but rarely is it made available as early intervention for students who present behavioral risks (Bradley et al., 2008; Wagner et al., 2005b). Examination of why these monies are not used for the prevention of more serious behavioral problems is needed. It is likely that the high stakes testing for all students required by No Child Left Behind (NCLB) cause schools to focus on raising test scores and ignoring the relationship between academic competence and social competence.
Secondly, identification and examination of the reasons why schools do not implement the evidence based interventions that are currently used in schools beyond the universal level is also needed (Bradley et al., 2008; Walker, 2004). There is resistance to implementation at the level where the intervention is delivered at an intensity or dosage able to mediate the development of emotional and behavioral disabilities, possibly because to do so is viewed as inconsistent with the primary mission of education. For children who are already at risk, these efforts are too diluted. Since the child participants in Partners in Success were found to be several years behind the national sample of children with this disability, it is likely that problem identification and initial interventions were delayed, reducing the chances for remediation. Another important implication is how serious the problems are of children with this disability are. A high percentage of the participants had been placed in foster care and had been hospitalized for a mental illness (approximately one third in each category). In addition, 25% had more than two psychiatric diagnoses under DSM-IVR. It is possible that the characteristics that reflect the seriousness of the emotional vulnerabilities of children may be overlooked by schools while the externalizing behaviors, which cause behavior management problems, receive more attention. In the current study 70% of the children were referred for externalizing behaviors. This problem may contribute to resistance in implementing targeted interventions in schools.

The acceptance and implementation of some prevention interventions and not others may be based on the notion that group interventions appear to be consistent with the primary mission of schools: instruction delivered to all students can be integrated
into the routine practices and structure of the school (Walker, 2004). In comparison, the more intensive interventions for mental illnesses and psychiatric issues contributing to school failure need to be individualized. For example, in Positive Behavior Support, a robust and evidence based intervention, implementation beyond the universal level where all students receive instruction in developing positive school behaviors and reinforced, is the exception (Wagner et al., 2006b). Tiers two and three provide more individualized and focused assistance for those who were unable to benefit from only the tier one intervention (Bradley et al., 2008; Conroy & Brown, 2004; Walker, 2004). Referral to tiers two and three is based on observation, assessment and collection of individual student performance data. Other barriers to implementation of the strategies of the intensity to disrupt the development of an emotional and behavioral disability have been identified in the literature as: the lack of fit between the program prototype and real world, a belief that manualized programs do not meet individual needs, an absence of advocates within the school, lack of available technical assistance, and a belief that the intensive strategies required to implement tiers two and three are not cost effective for the schools (UCLA, School Mental Health Project, 2007; Walker, 2004).

**Implications for School Social Workers**

Social workers are critical to the systematic implementation of broad based prevention interventions that set and teach normative standards for behavior, and assessing the need for and educating school personnel about targeted and intensive interventions. When effective prevention is embedded in the culture and climate of the school, enhanced academic instruction leading to positive outcomes for all children is more likely to occur. It is within this larger context that school social work is most
effectively positioned. Using the conceptualization of the prevention pyramid where the all of the students receive intervention, through multidisciplinary teamwork, social workers are able to address the system issues for students with emotional and behavioral disabilities and their unique needs. It is accepted that the domains of academic, social and behavior are inter-related and lack of success in one domain is a predictor of a poor long term outcome in the other domains. Yet, school social workers continue to be underutilized in their work with students. Social workers and other school support staff are used for narrowly focused activities with a small number of students who need help. This is very important work, but also limited. The results of the current study support that when social workers become involved in the academic as well as behavior and emotional components of a child’s school program, grades improve. By working within system framework of intervention that is integrated within the infrastructure of the school, social workers are able to: support regular and special education students, and classroom strategies to foster learning, facilitate home involvement with schools through multidisciplinary teams, provide access to needed services, and respond to crises when needed.\(^{(\text{http://smhp.psych.ucla.edu/summit2002})}\).

Without such a framework, social work interventions such as the one used in this study are not embedded in the daily operations of the school. The intervention may not be implemented as intended, not sustained, or in the possibly competing interests of school and the child and family in a crisis situation, ignored.

Although the findings of this study were not predicted by the hypotheses, what has been learned has implications for social work practice in schools. The findings in
Partners in Success show small to modest gains in some variables, a decline in others. These findings may be related to the complex set of problems associated with self-contained schools where children have been found to have the lowest academic achievement of those with emotional and behavioral disabilities. In programs like Rotterdam I and II, more behavioral programming may take place at the expense of academics. Available outcome measures may not be sensitive to the small academic gains the students make due to the high incidence of behavioral variables (Lane et al., 2008). The academic, social and behavioral dimensions impact each other, and all children are influenced by opportunities to interact with peers. The segregation of children with emotional and behavior disabilities from a normative peer group has implications for developing socially appropriate behaviors and academic competence. As well as learning how to relate to peers, through social interactions children also learn how to negotiate the demands of teachers, and engage in instruction (Wagner et al., 2006). Higher rates of engagement are associated with lower rates of disruptive behaviors (Hayling et al., 2008). It is important to maintain and teach the behaviors that are taught and reinforced in the less restrictive environment in the self-contained programs with the added necessary supports to help the children be successful. With the prevention framework as the foundation, a model for school social work such as the task centered model can be integrated. This provides a stronger foundation for working with children with the level of disability as those who are placed in self-contained or segregated placements. The broader prevention framework will provide a continuity of
expectations and relevance for children and families, perhaps leading to more positive outcomes, including returning to a less restrictive educational setting.

The following actions are recommended for school social workers to boost the academic and behavioral progress of all children, with an emphasis on reducing the marginalization of children with emotional and behavioral disabilities. The first task is for social workers to participate in leadership and policy making activities by demonstrating their abilities in working in a systemic way. Social workers must advance a prevention framework through research based classroom management systems and educate other professionals when practices in the schools are barriers to healthy development. Within the prevention framework, advancing a highly individualized, well coordinated multi-agency, multi disciplinary approach that reaches peers and homes has been found to be successful (Hoagwood et al., 2001). This work includes looking beyond the immediacy of the situation and providing information about the needs of children and families allowing for improved policies, programs and placement decisions. For example, social workers can help parents identify what parents need from the school and broaden their opportunities to become involved (Corbin, 2005). Parents must be engaged in a partnership with the school and regarded as a resource. All prevention efforts must be implemented at an intensity to be effective (Shepard & Carlson, 2003). Unlike children with learning disabilities, children with emotional and behavior disabilities have no known advocacy groups (Bradley et al., 2008) Many parents need assistance from school social workers in learning how to advocate for their children.
Future Research

In addition to the areas of need identified above, future research should be directed toward the following gaps. Due to the inconsistent progress in behavioral and academic outcomes for the population of children who have emotional and behavioral disabilities that has been reported, we must refine our understanding of the characteristics that predict poor school outcomes and intervene in ways that are supported by child development. This will allow for more effective early intervention efforts and mediating behavior patterns before they are reinforced by unfavorable interactional processes in school, with peers, and at home. We also need to learn how to evaluate the progress of children who have emotional and behavioral disabilities since the traditional or standardized measures may not reflect their progress. Another area of needed inquiry is a greater understanding of the student, family and school variables in operation preceding the decision to move a child to a special education or segregated placement. Finally, the link between chronic problem behaviors and school failure may be interrupted by the acquisition of social skills that foster school adjustment. As children with emotional and behavioral disabilities are taught how to respond to the demands of teachers, their opportunities to respond academically as well as socially increase, which in turn increase academic competence.

This study provided important guidelines for future studies in schools for children with emotional and behavioral disorders. Teachers, social workers and administrators are challenged daily to create a climate for learning and healthy development in environments where children present chronically disruptive and at times, unsafe behaviors. To maintain treatment integrity and effectively implement an
evidence based intervention, high quality technical assistance must be made available before the intervention, through recruitment of participants, implementation, and data collection (Walker, Golly, McLane & Kimmich, 2005; Mihalic, et al., 2004).

**Study Limitations**

In addition to the methodological limitations described in chapter 2, this study has a number of limitations that should be taken into consideration when interpreting the results. The data gathered is from one unique school program operated by Capital Region Board of Cooperative Educational Services serving approximately twenty school districts in the capital area of New York State. There were differences between the sample and available national data. Specifically, there were fewer African – American children, fewer girls, and as a group, the sample had greater academic deficits. Therefore, generalizing to other programs, states and geographical areas should be done cautiously. In addition, the children were identified as emotionally and behaviorally disabled by their home school districts. Referral to Rotterdam I & II may have been necessary due to characteristics about the referring school system, as well as the referred child. There are federal and state regulations in place to guide the referral process, but how the regulations and guidelines are implemented is based on local school district policies. Finally, parental and teacher satisfaction data about the intervention were not collected, limiting the opportunities to refine the intervention based on what teachers and parents found helpful. This data would have provided important information about implementation and possibly effects on the results.
Conclusion

The original research question of this study was whether the children with an emotional and behavioral disability placed in a segregated placement site or self-contained school show better school outcomes if their parents participate in goal setting with school staff. Although the hypotheses could not be supported, this finding suggests the need for further research. Many children with this disability continue to show little if any progress over the course of a school year while others get worse despite placement in resource rich programs. Prevention studies provide strong evidence linking behavior and academics. More research is needed to determine what evidence based practices can be implemented and sustained by schools to alter the course for children placed in self-contained schools and their families.
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APPENDIXES
APPENDIX A

Parent Recruitment Letter
Recruitment Letter to Parents for Partners in Success Evaluation Study

To the Parent of Guardian of a Rotterdam I and II Student:

I have asked the administrator at Rotterdam Academy I and II include this letter in the opening day packet. My name is Julienne Magnano and I am a doctoral student at the University at Albany. I am studying whether or not students can improve grades, attendance and behavior when parents, teachers and social workers develop goals and work together by communicating frequently about your child’s school progress.

What I would like to do, with your permission and your child’s assent is to ask you and your child’s teacher to complete a questionnaire about your child’s behavior. I will also ask your child’s teacher to fill out another questionnaire about behavior in the classroom. I am also asking permission to review your child’s grades, behavior reports and attendance records for the 2005-2006 school year to evaluate if our Partners in Success Program has been helpful to children.

After discussing this with your child and reviewing the enclosed information, if you decide you will grant me permission to collect this information about your child, please sign the enclosed form and return it to school with your child. I may be reached at 518-464-6381 or at imagnano@gw.neric.org if you should have any questions.

Thank you in advance for your time and attention this request. In addition to the consent form, I have enclosed an assent form for your child for you to review.

Sincerely,

Julienne Magnano
APPENDIX B

Parent Consent Form
Parental Consent Form

Study Title:
**Partners in Success**

Principal Investigator:
Julienne Magnano, Doctoral Student

Study Purpose:
This study will test the effectiveness of a social work intervention designed to help students succeed in school and at home by working closely with children, parents and teachers, facilitated by the school social worker. This is accomplished by a weekly child study team meeting with your child’s teachers, meeting with your child, and communicating with you by meeting at school, in your home, or by talking by phone.

As a parent participant you will be asked to complete a brief questionnaire, called the BRIC, about your child’s behavior and temperament at the start of the study within the first few weeks of the 2006 school year, and again at the end of the school year, in June of 2007. You also will be asked to complete a parent satisfaction survey to let us know how helpful the Partners in Success program has been to you and your child in June of 2007.

Risks and Benefits:
There are no anticipated risks to you or your child by participating in this study. We anticipate direct benefits to parents and students by increasing school – parent communication and support through shared goal setting facilitated by the school social worker. There are no anticipated risks to you or your child if you do not wish to participate in this research. You and your child will continue to receive services through Rotterdam Academy I and II. Your child will not be affected by this research if you do not wish to participate. The research will not affect children who do not have parental permission to participate.

Participation Information:
*You and your child’s participation are completely voluntary and may be discontinued at any time. If you agree to participate and your child does not, he or she does not have to participate.*

You are asked to participate in this study and your permission to share your child’s school records with the researchers. This includes report cards and grades, behavior and attendance information, and a brief teacher questionnaire about your child’s behavior in school. In no way will your child’s school program, the services your child will receive and your child’s grades be affected by you and your child’s participation in this program.
All identifying information given to the investigator will be kept confidential. All participants will be identified with a code number. Any information given by or about a participant used in future publication will be identified as “One student said…” or “A parent of a middle school student said…” Any case file or academic information will also be coded using this identification number, and will be maintained in a locked filing cabinet.

All records that identify your child will be kept private to the extent allowed by law. However, officials from the federal government or the University at Albany may inspect the records that identify your child for the purpose of protecting your child’s rights as a human participant.

Study Information:
If at any time you have questions or concerns regarding the study, the principle investigator can be contacted by phone at (518)464-6381 or by e-mail at jmagnano@gw.neric.org.

If you have any questions concerning your rights as a research participant that have not been answered by the investigator or if you wish to report any concerns about the study you may contact the Office of Research Compliance at 518-437-4569 or at orc@uamail.albany.edu.

Parent Consent
The signature below gives my child permission to participate in this study and my agreement to participate.

____________________________________
Signature of parent/guardian      Date

I give my consent for Julienne Magnano to receive records regarding program participation from the Partners in Success Program for my child, ________________, D.O.B. ____________.

I give my consent for Julienne Magnano to receive information regarding my child’s grades, behavior reports, attendance records for my child, ________________. D.O.B. ________________ who attends school at Rotterdam Academy.
Signature of parent/guardian  Date
APPENDIX C

Child Assent Script
Partners in Success

Script for child's oral assent to be read to them by social worker (version for youngest children):

“A student from the University at Albany is trying to understand how to help children do as well as they can in school. To do this, visitors will come to school to talk to your teachers. They will call your parents and talk to them, too. They will ask your teachers and your parents to fill out some papers about how well you do at school and at home. To learn how to help children do well, they may also look at your grades and your report cards.

After they are done asking questions and looking at the information your parents and teachers give them, they will make some suggestions about how to help children do well in school.

If you think it is okay for the visitors to talk to your parents and your teachers, and look at your report cards, please tell me. If you do not want them to do this please tell me and they will not be allowed to do so. If you do not want them to know about you or how you do at school, it is fine. You will continue to come to school every day and do all the things you usually do with your teachers and the other children. Your parents said it is okay for the visitors to talk to your teachers and look at your report cards, but they will do so only if it is okay with you, too.

If you have any questions about this at any time, or if you change your mind, please ask your teacher, parents or me to call the student from the University at Albany and let her know you have questions. Her name is Julienne Magnano and she can be called if you have questions or if you change your mind. Is it okay for Ms. Magnano to collect this information about you or would you prefer not?”
APPENDIX D

Child Assent Form
Child’s Assent Form
Permission to Participate in a Research Project

Study Title:
**Partners in Success**

Principal Investigator:
Julie Magnano, Doctoral Student
University at Albany

Study Purpose:
This study will evaluate the new program by collecting information about your grades, attendance and behavior.

Important Information:
- Your parents have given permission for you to participate in this study by sharing your school information with the researchers.
- You do not have to participate if you do not want to, even though your parents said it is okay.
- If you say yes now and later change your mind, it is okay.
- If you have any questions, please call Julie Magnano at 464-6381 or e-mail at jmagnano@gw.neric.org.

If you sign below, it means you are giving your permission to share your information with the researchers.

________________________________________________________________________
Student Signature

____________________
Date
APPENDIX E

Teacher Consent Form
Partners in Success
Teacher Consent Form

The Partners in Success Program will be evaluated this academic year (2005-2006) by Julienne Magnano, a graduate student at the University at Albany. In order to complete this evaluation, she is requesting your permission to review report cards, attendance records, behavior reports and questionnaires completed by parents and teachers of the students who participate in the Partners in Success Program this school year.

You are being asked for your consent to be included in this evaluation because you have a student whose parent has allowed the child to participate, and the child has given his or her assent to participate. The researcher is asking that she be allowed to review the Classroom Behavior Teacher Report Form, Teacher Questionnaire, and the BRIC that you will be asked to complete as part of the Partners in Success Program. The Classroom Behavior Teacher Report Form and the BRIC will ask you to identify student behaviors in the classroom. The forms will be given to you at the beginning and end of the school year.

Any information provided to the researcher will be kept confidential. All identifying information will be removed prior to being shared. “All records that identify you will be kept private to the extent of the law. However, officials from the federal government and/or the University at Albany may inspect the records that identify you for the purpose of protecting your rights as a human participant.”

Your participation in the evaluation is completely voluntary. You may discontinue participation in the evaluation at any time without penalty, by choosing not to complete the questionnaires.

Participation in the evaluation will have no impact on the services that any student receives at school. The evaluation will occur after the end of the school year.

While we cannot promise you any direct benefits from your participation in this evaluation, it is believed that by including the information requested from you the researcher will gain greater understanding of the effectiveness of the Partners in Success Program. This could help parents, teachers, and social workers better understand methods for removing barriers and promoting academic success for students with a social/emotional disorder.

If you have any questions about this information, please contact Julienne Magnano at (518)464-6381 or by e-mail at jmagnano@gw.neric.org. The faculty supervisor, Dr. Anne E. Fortune, can be contacted at (518)442-5322. If you have any questions about your rights as a research participant that have not been answered by the investigator or
if you wish to report any concerns about the study, you may contact the University at Albany Office of Research Compliance at 518-437-4569 or at orc@uamail.albany.edu.

____________________________________    _________
Teacher Signature        Date
APPENDIX F

Behavior Rating Index for Children

BRIC
PARTNERS IN SUCCESS
Behavior Rating Index for Children (BRIC)

Student Code #_______________________________________________
Date:  _______________________________________________
Completed by:  _______________________________________________

For each item, please record the number that comes closest to your observations of the child. Record your answer in the space to the left of each item, using the following scale:

1 = Rarely or never
2 = A little of the time
3 = Some of the time
4 = A good part of the time
5 = Most or all of the time

_____ 1. Feel happy or relaxed?
_____ 2. Hides his/her thoughts from other people?
_____ 3. Say or do really strange things?
_____ 4. Not pay attention when he or she should?
_____ 5. Quit a job or task without finishing it?
_____ 6. Get along well with other people?
_____ 7. Hit, push or hurt someone?
_____ 8. Get along poorly with other people?
_____ 9. Get very upset?
_____ 10. Compliment or help someone?
_____ 11. Feel sick?
_____ 12. Cheat?
_____ 13. Lose his/her temper?
Please write in any disruptive classroom behaviors not listed above that describe this student.
APPENDIX G

Teacher Report Form

TRF
PARTNERS IN SUCCESS

CLASSROOM BEHAVIOR TEACHER REPORT FORM (TRF)

Student Code #__________________________________________________________
Date:  _______________________________________________
Completed by:  _______________________________________________

Read each behavior listed below and decide which answer best applies to the
student’s classroom behavior during the previous two weeks. Write the number of your
answer in the space provided to the left of each behavior listed. Please answer all of the
items as well as you can, even if some do not seem to apply to the student. Base each
answer on your observations of the student in your classroom. For each behavior listed,
there are five possible responses:

1 =Always  2= Often  3 = Sometimes  4 = Seldom  5 = Never

_____  1. Swears during class.
_____ 2. Disrupts other students.
_____ 3. Daydreams; does not pay attention to class material.
_____ 4. Hyperactive; not able to be still when necessary.
_____ 5. Asks for passes to leave the classroom.
_____ 6. Talks back to the teacher during class.
_____ 7. Shows off during class.
_____ 8. Requires a lot of help with class work.
_____ 9. Quiet; does not participate in class discussion.
_____ 10. Talks without waiting for his/her turn.
_____ 11. Does not come to class with books or supplies.
_____ 12. Is aggressive toward others.
_____ 13. Is unhappy for no apparent reason.

Please write in any disruptive classroom behaviors not listed above that describe this
student.
APPENDIX H

Intervention Protocol
Preadmission Phase

Referrals the Rotterdam Academy I & II Partners-in-Success program are made by the student’s home school district. Once a referral has been made to the program, the referring school district, parent, student and interested community service providers are invited to attend a school visit and participate in an intake meeting. The program administrator will communicate with the referral source as to the status of the referral, i.e. accepted, denied, or wait listed. Once accepted the parent will be given a start date for his or her child.

Initial Phase

The initial phase occurs over the first four to six weeks. This phase of service involves engagement, consent, problem identification and formulation of child study team.

- Parents/legal guardians of the child are contacted by the school social worker. Usually this occurs through a phone call.
  - The goal of the first contact is to secure a face-to-face meeting.
  - Explain that you would like to meet with them to explain the Partners in Success program in detail and how it might benefit their child.
  - Secure a date, time and meeting location. Initial meetings took place at the school, family’s home, or at another agency.

- Before the first family meeting, the school social worker will meet with the child at intervals designated on the child’s Individual Education Plan (I.E.P.) both individually and in a group and observe the child in various settings within the school program.

- During the initial parent/family meeting the school staff describes the Partners in Success program.
  - Review school concerns or concerns that facilitated the referral to Rotterdam Academy. Explain program services so that parents know what the program can offer and what the program expects in terms of their participation.
• Recruitment letter and consents were presented and signed
• School–home communication and participation was discussed.

• Initial individual meetings with the child.
  
  o Schedules are arranged with the teacher for students to meet with the social worker.
  o The social worker will modify language and communication to meet the emotional and developmental abilities of the student.
  o During these meetings, elicit the student’s response to the concerns expressed by the parent/family and school team.
  o If the student disagrees with the identified concerns, explore the differences and attempt to find common ground. If common ground was not established, the student’s perception of the problem was accepted. This was an ongoing process for many of the students and agreements were not always realistic.
  o The child study team is explained. The student is allowed to invite a support person to the team meetings. Parents and other family members were most often chosen. However, students have also invited other faculty or other service providers.

• The school social worker will have had two to three meetings with the parent/family during the early phase. If face to face meetings were not possible, the planning and information gathering took place by telephone. The purpose of the meetings were:
  
  o Gain clarity regarding the concerns and begin formulation of goals to be worked on.
  o Gather information from the parent/family on what has already been tried; what has worked and what has not worked; when and where these concerns occur; determine the family’s level of functioning; identify strengths and resources. This process allowed the social worker to develop an understanding of how the information that the family shares may be connected to the referral problem.
  o Have the parent complete the pre-test *BRIC*.

• Prior to the first child study team meeting, the social worker:
• Asks the classroom teacher complete the pre-test *Teacher’s Report Form* and sign the *Teacher Consent Form*.
• Has elicited the child’s, the parents’, and the referral source’s formulation of the problem so that this information can be used to develop a goal plan during the first team meeting.
• Continues to assess the problem. This may include a review of school records, any psychological testing, or contacting previous teachers or other service
providers. However, the most important information comes from the child, parents and teacher and what is currently being presented.

**Intervention Phase**

*The intervention phase began after the first month for team meetings. This phase involved goal-setting and monitoring, regular team meetings, barrier identification and problem resolution. Family counseling and individual counseling may also be occurring as indicated by the goal plan that is developed by the team. The experimental condition established goals at week thirteen and the crossover condition established goals at week twenty-five.*

- Child Study Team Meetings.
- They are usually held at the school, during the agreed upon time but exceptions to accommodate the family and community service providers were made. The team members have been identified by the child and their role is to take part in identifying solutions and working collaboratively to assist the child in making progress.
  - Review the format of the meetings. The plan is to meet every week for the school year, unless less frequently is sufficient.
  - The first meeting should take 20 to 30 minutes. Subsequent meetings should take 15 to 20 minutes.
  - The goal of the first meeting was to obtain consensus on goals and to develop a plan. This will occur with all team members’ input. This process will begin with the school social worker or teacher summarizing the areas of concern solicited from everyone prior to the first team meeting. Begin with the area of concern agreed upon as the most pressing. Establish a baseline of frequency by asking how often the problem is occurring.
  - The team members have all been asked to share ideas as to what can be done to alleviate the occurrence of the behavior. Along with the team, the social worker should develop these ideas into tasks. Each member should have a task. The social worker should make sure that the team’s members are clear about the details of their tasks.
  - The administrator will then summarize the plan for the team and get consensus on moving forward with this plan.
  - Set the date and time for the next meeting.

- Subsequent Team Meetings
  - Progress since the last meeting was reviewed. Any needed changes were made to the plan.
  - Summarize current plan and any new tasks that have been developed. Allow the team to make decisions about the goal plan and continued
services. As the facilitator it is the role of the administrator to be asking the team: if they need to continue with a given goal; has sufficient progress been made to discontinue a goal. A date and time for the next meeting was established.

- Family Sessions.
  - If the plan included family meetings, then the social worker and family will develop a schedule.
  - At each meeting the social worker will review the goal plan and progress that has been occurring.
  - The social worker will discuss tasks and ways to address obstacles through practice, role-playing or modeling. The counselor can use what might be happening during the family sessions to problem solve and develop a plan for corrective action.
  - The social worker will provide the family with therapeutic homework to address issues. This will also take the form of tasks to resolve specific problems.
  - During sessions these tasks will be reviewed. If tasks were completed, social worker and family members will discuss the relationship between completion of task and progress on goals. If tasks are not completed, social worker and family members will discuss obstacles to task completion and make a plan to overcome these obstacles.
  - Summarize the current plan and any new tasks or homework that has been developed. The social worker and the family should be discussing progress and need for ongoing meetings.
  - Set up next family session at the end of the meeting.

- Subsequent individual sessions.
  - These meetings should be consistent. Make sure that there is agreement with the teacher about the schedule for these meetings.
  - Individual sessions with the child will be focused on tasks developed in the goal plan. These tasks may include activities like behavior chart development, skill-building; work with peer helpers, use of games or role playing, depending on the emotional and developmental ability of the child.
  - Progress on tasks will be reviewed. If tasks have been completed, social worker and child will discuss the relationship between task completion and progress on goals. If tasks have not been completed, social worker and child will discuss obstacles and develop a plan for overcoming obstacles to goal completion.
  - The social worker and child should be discussing progress and plan for future sessions. The child may also be included in a group.
Closure Phase

*This involves the final progress rating and identification of how change has occurred.*

- **Final Team Meeting.**
  - The social worker facilitates the review of each area of concern and solicits feedback from the team members as to overall progress since the start of the intervention.

- **Either prior to or at the closure meeting the parent/family member was asked to review what was accomplished and complete the post-test BRIC.** If the final meeting took place over the phone, the social worker read the BRIC to the parent. The teacher was asked to complete the post-test *Teacher’s Report Form.*

- **Final Individual Session.**
  - Review the overall goals with the child.
  - Encourage the child to discuss how he or she felt about the school year, the progress that has been made, and what the child may want to work on next.