Development and Validation of the Impediments to Change Scale - Educational Version: A Study of Children and Adolescents With Emotional Disturbance

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THE DEVELOPMENT AND VALIDATION OF THE IMPEDIMENTS TO CHANGE
SCALE – EDUCATIONAL VERSION: A STUDY OF CHILDREN AND
ADOLESCENTS WITH EMOTIONAL DISTURBANCE

By Ray W. Christner

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Dissertation Approval

This is to certify that the thesis presented to us by Ray W. Christner on the 27th day of May, 2004, in partial fulfillment of the requirements for the degree of Doctor of Psychology, has been examined and is acceptable in both scholarship and literary quality.

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Abstract

This study reviewed the development of the *Impediments to Change Scale: Educational Version* and evaluated its use with children and adolescents identified as having an Emotional Disturbance (ED) according to the Individuals with Disabilities Education Act (IDEA). The investigator examined the scale’s internal consistency and conducted a hierarchical cluster analysis to identify indices related to “impediments of change.” The objective for the *Impediments to Change Scale: Educational Version* is to offer a clinically useful instrument to assist in identifying risk factors that impede a student’s progress in his or her educational program. Pending future research, this tool has the potential to furnish needed information to create targeted and efficient intervention practices aimed at facilitating behavioral and academic change.
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Chapter 1

Introduction

Change is a natural occurrence. We all face situations in which change is necessary or desired. For some, the ritual of a New Year’s resolution illustrates the plan to change “bad habits” such as smoking, excessive eating, losing your temper, or procrastinating. Regardless of the behavior, the process of change is not easy. In fact, for many, change is a grueling and frustrating process. Certain individuals and groups experience more difficulty with change, as they face various barriers that impede or complicate the attainment of the desired goals. Children and adolescents identified as having an Emotional Disturbance (ED) constitute one such group.

Children and adolescents with ED often face uphill battles within various settings, including school, home, and the community. Because the pattern of behaviors exhibited by these youth is by definition enduring, the outcomes are at best inconsistent and at worst disturbing. Several researchers have compiled data and information on the characteristics placing children “at risk” for developing ED (Epstein & Cullinan, 1994; Singh & Landrum, 1994), yet less research is available regarding the long-term effects of intervention with this population. Children and adolescents with ED often encounter negative educational experiences, therefore positive change is sometimes difficult to accomplish. Researchers have described the process and stages of change with various other groups including smokers (DiClemente et al., 1991), dieters (Greene, Rossi, et al., 1993; O’Connel & Velicer, 1988), substance abusers
(Prochaska, DiClemente, & Norcross, 1992), and diabetics (Ruggiero & Prochaska, 1993). However, there is no current research investigating the change process with children and adolescents identified as having ED.

During the 1999-2000 school year, approximately 470,111 students in the United States were classified as having ED under the Individuals with Disabilities Education Act, P. L. 105-17 (U.S. Department of Education, 2001). The number reported by the U.S. Department of Education represents only those children identified as having ED receiving special education services. It does not include those students “thought to be exceptional” or those diagnosed with a mental health condition albeit not receiving special education services. While the number of students obtaining services for ED represents only about 8 percent of all students receiving special education services (U.S. Department of Education, 2001), the ED population is one of the educational groups having the highest degree of need and the worst long-term outcomes. The U.S. Department of Education (2001) reported a steady rise in children identified with emotional or behavioral difficulties, and of the children receiving services for ED, as many as 33 percent of the children receive 60 percent or more of their education outside the regular classroom environment. Furthermore, approximately 18 percent get their education in settings other than public school (e.g., separate facility, residential facility, hospital, etc.). Academic and school failure is common for this population (Kauffman, 2001, as cited in U.S. Department of Education, 2001). Accordingly, about 50 percent of students identified as having an emotional or behavioral disorder drop out of school (U.S. Department of Education, 2001;
Impediments to Change Scale

Walker, Colvin, & Ramsey, 1995), and of these dropouts, as many as 70 percent are arrested within 3 years of leaving school (Jay & Padilla, 1987).

By definition, the problems seen in students with ED manifest “over a long period of time and to a marked degree that adversely affects the child’s educational performance” (U.S. Department of Education, 2001). Presently, the educational system has focused its attention and efforts on functional behavioral assessments (Hendrickson, Gable, Conroy, Fox, & Smith, 1999; Lane, Umbreit, & Beebe-Frankenberger, 1999; Heckman Conroy, Fox, & Chait, 2000) and positive behavioral support plans (U.S. Department of Education, 2001) in the treatment for youth with ED. While these strategies are effective in the management of a child’s behavior in school and the prevention of more serious behaviors (Lane et al., 1999; Sugai, Horner, & Gresham, 2002), research regarding the long-term effects and generalizability of the behavioral changes produced by these interventions is only recently emerging (Hendrickson et al., 1999; Blakeslee, Sugai, & Gruba, 1994). Strategies with students classified as ED have focused traditionally on controlling behavior and manipulating the environment, and far less of the intervention efforts have addressed the “change processes” and the promotion of enduring change. Given the complexities facing children and adolescents with ED, interventions based on a comprehensive and extensive model are necessary.

To begin enhancing educational programs and services to this population, school teams must begin investigating the process of change with these students. Understanding change and the impediments or barriers confronting
particular students would allow for better conceptualization of the student and his or her needs. This framework could guide the development of educational and behavioral goals and objectives necessary for a student’s Individualized Education Program (IEP).

Research on impediments to change in children with emotional and behavioral disorders within a school setting is minimal. However, researchers have explored barriers affecting treatment outcomes, participation, and change within counseling and other treatment environments (Kazdin, Holland, Crowley, & Breton, 1997; Kazdin & Mazurick, 1994; Kazdin & Wassell, 1999; Kazdin, 1995). Expanding upon the literature in these areas and extrapolating the results to understand the change process with youth classified with ED, as well as the barriers impeding their educational and behavioral progress, are essential to provide effective and efficacious treatment and/or education interventions.

To accomplish this, it makes sense to have a valid and reliable instrument to measure the variables impeding progress and change in students with ED. This instrument would be a resource for consulting psychologists, psychiatrists, or school-based intervention teams to identify and understand salient aspects or impediments to the change process. The information gathered would serve as a basis for intervening and developing treatment plans to accelerate progress and improve outcomes with this population. The conceptual view underlying the development of such a scale should focus on the multitude of factors impeding progress in youth with ED. With this in mind, the impediments explored must go beyond the child and address other systems affecting change, including the
Impediments to Change Scale

family, the teacher, and the school. The model used in the development of such an instrument must address the impediments encountered by the students that play a substantial role in the educational process.

Emotional Disturbance in School-Aged Children

**Definition of emotional disturbance.** The classification of “Emotional Disturbance (ED)” is a vague and often misunderstood term in both educational and clinical realms. While ED suggests the individual is manifesting behavioral or emotional responses different from the generally accepted and/or age appropriate norms, there remains confusion regarding the identification of children and adolescents under this classification. One apparent reason for this misunderstanding is the discontinuity between mental health or clinical facilities and educational institutions.

In the mental health field, according to the Substance Abuse and Mental Health Services Administration (1993), the term ED refers to children and adolescents possessing a diagnosable mental, behavioral, or emotional disorder consistent with the criteria set forth in the *Diagnostic and Statistical Manual of Mental Disorders-Fourth Edition-Text Revision* (DSM-IV-TR; American Psychiatric Association, 2000). Furthermore, the consequences of this disorder must include a functional impairment that significantly interferes with or limits the youth’s role or functioning in family, school, or community activities.
In contrast, educational professionals using the classification of ED reference the definition presented in the 1997 Reauthorization of the Individuals with Disabilities Education Act (IDEA; Public Law 105-17), which states:

(i) The term [emotional disturbance] means a condition exhibiting one or more of the following characteristics over a long period of time and to a marked degree that adversely affects a child’s educational performance:

(A) An inability to learn that cannot be explained by intellectual, sensory, or health factors.

(B) An inability to build or maintain satisfactory interpersonal relationships with peers and teachers.

(C) Inappropriate types of behavior or feelings under normal circumstances.

(D) A general pervasive mood of unhappiness or depression.

(E) A tendency to develop physical symptoms or fears associated with personal or school problems.

(ii) The term includes schizophrenia. The term does not apply to children who are socially maladjusted, unless it is determined that they have an emotional disturbance [Section 300.7(c) (4)].

These definitions are used commonly across the United States, but the disparities between the two can have an affect on the services received by the student. Children and adolescents meeting the criteria for ED under the IDEA
definition are eligible to receive “specially designed instruction” such as services in a program for children with emotional disturbance (e.g., Emotional Support). Conversely, children identified with ED under the mental health definition may not necessarily meet the regulatory definition under IDEA, which is necessary for the student to receive special education services. Students under the mental health definition may be eligible for services through other means, such as Section 504 of the Rehabilitation Act of 1973 (Office of Civil Rights, 1988). While the scope of this paper cannot provide the requirements for all states regarding the identification of students with ED, clinicians must be aware that the criteria used by different states or local school districts are diverse. This further complicates the identification process of children in need of educational services because of emotional or behavioral issues. For the purpose of this manuscript, the IDEA description of ED will take precedence.

Under the auspices of special education, those children classified as having ED continue to be overlooked or underidentified within the school system, as less than 1 percent of all children enrolled in public school receive services under IDEA for this category (U.S. Department of Education, 2001). However, Hoagwood and Erwin (1997) indicated approximately 20 percent of youth in schools are in need of treatment for mental health problems. While not all children receiving mental health services require special education intervention, a plausible explanation for the difference in numbers between those children with mental health needs (20 percent) and those receiving special education service for a emotional disturbance (less than 1 percent) is the confusion regarding
eligibility under the current definition. Additionally, factors such as funding and a lack of appropriate programs and placement options are further possibilities.

A primary controversy concerning the recognition of students with ED is the varying diagnoses included within the classification of ED. The ambiguity of the standards leaves the door open for interpretation by the clinician. As a result, children and adolescents in Emotional Support (ES) settings often have a multitude of diagnoses. This has an effect on accurate identification, and it makes treatment and intervention efforts complicated. The IDEA definition alludes to the inclusion of mood disorders and anxiety disorders and directly declares the inclusion of schizophrenia. In the IDEA definition of ED, there exists a qualifying statement suggesting the exclusion of students with “social maladjustment.” On the surface, this suggests children with disruptive behavior disorders, particularly those diagnosed with conduct disorder (American Psychiatric Association, 2000), are not eligible to receive services (Forness, Kavale, & Lopez, 1993). Forness and colleagues further point out, however, that the definition of ED is inherently problematic and inconsistent, given it excludes “social maladjustment” while describing it in the definition – “the inability to build and maintain relationships with peers and teachers.” There is qualification of this exclusion, as the definition affirms the classification of ED “does not include children who are socially maladjusted, unless it is determined that they have an emotional disturbance” (italics added)” (Skiba & Grizzle, 1992). Professionals must take into account this point given the high comorbidity of conduct disorders (externalizing) and affective disorders (internalizing; Kovacs, 1989). The federal
definition limits the possibility of children with social maladjustment from receiving special education under IDEA. However, students with social maladjustment, such as conduct disorder, constitute the greatest percentage of students with emotional disturbance receiving service in day programs and residential settings (Forness, 1992; Forness, Kavale, King, & Kasari, 1994).

Overall, the ambiguity and generic nature regarding the definition of ED can itself serve as an impediment to change. Given the knowledge of specific and empirically supported treatments for a number of childhood disorders including mood disorders, aggression, anxiety disorders, AD/HD, and disruptive behavior disorders (Mash & Barkley, 1998), the lack of a consistent, clinically based classification system is troublesome. Before clinicians and educational professionals can properly understand and promote change in children and adolescents with ED, they must first obtain clarity regarding the factors that contribute to and/or maintain behaviors seen in children and/or adolescents. School-based professionals need knowledge and understanding of ED as defined by federal, state, and local guidelines, as well as their relationship to the psychiatric nosology of DSM-IV-TR (American Psychiatric Association, 2000).

Beyond traditional systems of classification, the consideration of child, family, and systematic variables that affect the child and his or her progress behaviorally and academically is critical. Knowledge of these factors can serve as a method of evaluation to identify barriers or impediments influencing or hindering progress and positive change.
Characteristics of emotional disturbance. As stated previously, students classified as having ED often receive services based on the manifestation of symptoms from various mental health conditions such as mood disorders, anxiety disorders, AD/HD, conduct disorders, or other psychiatric disorders (Forness et al., 1994). With children and adolescents, the presence of multiple or comorbid diagnoses is common (Carron & Rutter, 1991) and complicates the conceptualization of the child’s or adolescent’s difficulties. Besides the presentation of behavioral sequelle related to diagnosable conditions, children and adolescents with ED often offer involved presentations confounded by factors of personality, family, teacher, and educational systems.

To begin understanding the multitude of factors affecting children and adolescents with ED, several researchers have explored characteristics related to this population. Epstein and Cullinan (1994) studied variables of children with emotional and behavioral disorders in community based treatment facilities. Their study included participants identified as “at risk” for placement in a residential treatment facility because of their emotional and behavioral problems. All of the children in the study met the criteria to be classified as having an emotional or behavioral disorder, which is the Illinois equivalent term for the federal special education category of “emotional disturbance.” Of the coexisting conditions, 39 percent of the children also displayed characteristics of a learning disability. This finding is consistent with other research demonstrating academic difficulty in students with ED (Anderson, 2001; Morrison & D’Incau, 1997; Rylance, 1997). Research by Kauffman (2001; as cited in U.S. Department of Education, 2001)
demonstrated that academic and social failures are related reciprocally and inextricably, most often seen in the associated academic deficits with students displaying difficult behaviors.

Anderson (2001) investigated the academic progress of students with ED and those with learning disabilities. His study compared the two groups on five predictor variables including attendance, behavior discipline referrals, early retention, school mobility, and type of special education setting. The students with ED missed notably more school, received more behavior discipline referrals, and received full-time special education services more often. Comparing the difference in academic progress over time, Anderson found both groups were below the average in math and reading. Interestingly, however, the findings revealed students with a learning disability made significant gains over time, whereas students with ED showed negligible academic gain. Anderson’s research demonstrated two noteworthy distinctions between the groups: (1) initially ED students scored higher compared to students identified as learning disabled; and (2) students with ED received more full-time special education services than those with learning disabilities. These results further highlight the devastating effect seen with children classified as ED, as they possess stronger skills than LD students initially and receive more services, yet their progress is less notable.

Coleman and Vaughn (2000) suggested that academic and social failures result in negative interaction and punishment from teachers, which too, lessens academic time. This pattern may explain the minimal academic gains seen in
some students with ED, despite their potential to learn. Moreover, students with ED have a high frequency of truancy, suspensions, tardiness, and expulsions, in addition to problems including poor peer relationships, failure to pay attention, need for continuous discipline, and attention-seeking behaviors (Epstein & Cullinan, 1994).

Children with ED traditionally receive more services and treatments than do other populations. Epstein and Cullinan (1994) revealed that many of the students identified as ED receive additional services, other than those at school, including mental health treatment (32 percent) and child and family services (24 percent). Singh and Landrum (1994) found past psychiatric hospitalization was a substantial variable in differentiating between children with ED, other disorders, and regular education. They noted 73 percent of the students in their study with ED had a history of prior psychiatric admissions when compared to students with other disorders (46 percent) and to those in regular education (45 percent). Past outpatient treatment was also significant with the ED population, as 91 percent of students with ED had a history of past treatment (Singh & Landrum, 1994). The use and prescription of medication is more common in children with ED compared to other groups (Epstein & Cullinan, 1994; Singh & Landrum, 1994); however, the prevalence of use with this population seems to fluctuate greatly (from 27 percent to 80 percent) depending on various factors.

Children and adolescents with ED are often involved with the criminal justice system; however, inconsistencies exist in the frequency and level. One explanation for the differences found goes back to the lack of agreement
regarding the definition and identification of ED. Epstein and Cullinan (1994) revealed the majority of children with ED in their study at some point had legal charges filed against them (60 percent). Others have noted students with ED to report issues with substance abuse and legal issues; however, the actual presence was minimal (in 14 percent of the ED sample) and insignificant for discrimination between groups consisting of children classified as having ED, another disorders, or being in regular education (Singh & Landrum, 1994).

To understand further the risk factors associated with educational problems and progress with students displaying aggression and emotional problems, Valance, Fernandez, and Biber (1998) conducted a study to determine whether educational progress for adolescent boys with emotional and behavioral disorders could be predicted by risk factors and protective factors. Additionally, they attempted to determine which psychosocial risk factors and protective factors are most strongly associated with school progress in these students. The findings of this study support that certain psychosocial protective factors predict progress toward educational goals even in children exhibiting aggression or emotional difficulties. The factors notably associated with educational progress included cognitive skills (i.e., problem solving) and social competencies (i.e., likeability and ability to get along). The presence of an adult mentor also predicted school success in the participants. While the aforementioned protective factors predicted school success and educational progress, the presence of an increased number of risk factors was not foretelling with regard to a lack of academic or educational success. Thus, the possession of protective factors
holds more importance in determining school progress than an increasing number of risk factors. These findings support the need of having programs aimed at enhancing social interaction skills and cognitive skills, as well as providing positive adult mentors.

Having an understanding of the family variables of students with ED can be of further value. Some have noted that family functioning is a high predictor of delinquency in children (Loeber & Stouthamer-Loeber, 1986). Family involvement in education fosters commitment and collaboration between families and schools. However, parents of children with ED may often feel burdened and may experience higher levels of stress. Studies with parents of children with behavioral problems (e.g., AD/HD) report that externalizing behaviors from children including aggression, impulsiveness, and overactivity contribute the most to increased parental stress (Baker & McCal, 1995; Anastopoulos, Guevremont, Shelton, & DuPaul, 1992). Moreover, Pelham and associates (1998) demonstrated that defiant behavior in children not only correlated with but also intensified parental stress and negative mood. Their study further verified that parents with a history of alcohol consumption as a coping mechanism were more likely to engage in heightened drinking because of the increased stress produced by their child's defiance. The impact of parental stress is likely exacerbated in single parent households. Epstein and Cullinan (1994) reported the majority of the children in their sample resided with only one biological parent and experienced additional risk factors, including divorce, poverty, negative peer influences, or a family history of alcoholism.
Scheel and Reickman (1998) explored parent perception of self-efficacy and empowerment. The authors cited that without changes in parent perception and self-efficacy, the treatment of children is less likely to generalize. Their findings supported that parents of children in therapy with a psychological diagnosis are vulnerable to self-judgments in their parenting and a sense of low self-efficacy and disempowerment. The parents demonstrated negative self-judgments regarding their abilities to bring about change in their children. Parents with a low sense of self-efficacy, or those who felt disempowered, experienced increased levels of internal stress. The parents’ perception of stress was a notable factor of both self-efficacy and empowerment. The results further suggested that family system influences are an important variable in working with parents, and parental feelings of disempowerment and low self-efficacy may be associated with rigid and disengaged family systems.

Prochnow and DeFronzo (1997) examined the relationship of parental characteristics and delinquency. Their findings revealed several noteworthy relationships. Parental modeling characteristics, such as arrests, drug use, and educational level, related to forms of misconduct. Factors within the family such as divorce, spousal problems, and parental mental health problems, related to all measures of delinquent behavior except drug use. There was little evidence supporting perceived economic status or parental stress as having a relationship with youth delinquency. The exception to this was extreme economic hardship (e.g., homelessness, lack of necessities, etc.), which promoted delinquent behaviors as a means to survival.
Educational placement decisions. Because of the uncertainty to what constitutes ED, the determination of services for these students is often in question. Now, maybe more than ever, schools are under increased pressure to ensure, “No child left behind.” In addition to recent legislation, such as “No Child Left Behind” (The Council for Exceptional Children, 2003), the increased awareness of school violence has put many schools on a state of alert. More than 75 percent of schools report to following a “zero-tolerance” policy as a means to handle difficult behaviors or certain student offenses (U.S. Departments of Education and Justice, 1999). Thus, students displaying acts of aggression or disruptive behaviors are finding themselves under strict consequences. Children and adolescents with emotional or behavioral difficulties may be at particular risk for punitive actions (e.g., suspension, expulsion, etc.). While children with ED receive protection under IDEA, they may still find themselves in more restrictive or alternative settings.

Students with ED are often placed in settings outside their regular school environment or in special education placements that are more restrictive (U.S. Department of Education, 2001). In fact, during the 1998-1999 school year, approximately 18 percent of children identified as having ED received educational services outside of their regular school. Furthermore, 33 percent or more of students with ED spend most of the educational time (greater than 60 percent) outside the regular education classroom. Thus, it is important to understand the factors and variables contributing to placement decisions. Various factors influence identification decisions of children and adolescents with
ED, including demographic information (e.g., gender, socioeconomic status), district economic structure, behaviors (e.g., type of problem), and teacher characteristics (U.S. Department of Education, 2001; Glassberg, 1994; Kauffman, Hallahan, & Ford, 1998).

Frey (2002) studied the variables affecting special education teachers’ suggestions to place a student with ED into a more restrictive setting. The investigation looked at various factors including teacher efficacy, child socioeconomic status (SES), child ethnicity, and educational placement recommendations. Frey found several variables that significantly contributed to a teacher’s recommendation for a more restrictive placement, including the perception of his or her classroom management/discipline skills and belief that he or she can effect change on the student (self-efficacy). Frey also discovered that students from families in a lower SES were more likely to be referred for restrictive placements. Race did not contribute to placement decisions when other factors were controlled. This is in contrast to other findings suggesting minority students represent a disproportionate number of those identified as having a severe behavioral disorder (Hendrickson, Smith, & Frank, 1998).

Glassberg (1994) noted that students with overt behavioral difficulties, such as aggression or classroom disruption, are more likely to be placed in special education programs. Because boys more often manifest aggressive and disruptive presentations, this seems to explain the significant difference between male and female representation in more restrictive settings (Hendrickson et al.,
1998; Epstein & Cullinan, 1994), with males identified more often as having ED and their educational placements being more restrictive or limited.

When delinquent or antisocial behaviors have an early onset and are not treated sufficiently at a young age, the resulting disability becomes severe and inflexible (Wolf, Branhmann & Ramp, 1987; Kazdin, 1995). However, those identified early on and provided proper intervention are often maintained in less restrictive, regular school placements (Hendrickson et al., 1998). This supports the need for early identification and treatment of children with emotional disorders. A final factor to consider regarding placement decisions is the age-old controversy of labeling children. Hallenbeck, Kaufman, and Lloyd (1993) noted that many times students are seen as a group – “emotionally disturbed” – rather than as individuals. As a result, the decision for restrictive placements may be made based on the special challenges this population makes, rather than the individual behaviors and needs manifested by a specific child.

Outcomes of students with emotional disturbance. Perhaps the most frustrating and frightening aspects of working with children and adolescents with ED are the dismal outcomes. Students with behavioral disorders often present problematic issues for educators (Furlong, Morrison, & Dear, 1994). Because of the manifested behaviors, these children disrupt the learning environment and spend less time engaged in learning activities (U.S. Department of Education, 2001). Sadly, the prognosis for these students in and outside of school is poor and outcomes studies have shown alarming results.
As mentioned previously in this manuscript, academic and social failures demonstrate a reciprocal relationship (Barriga et al., 2002; Maguin & Loeber, 1996; Kauffman, 2001, as cited by U.S. Department of Education, 2001). However, this reciprocal relationship occurs within specific contexts. Behavioral difficulties and academic failure relate to one another in situations of ineffective school practices and ineffective parenting (McEnvoy & Welker, 2000). If a school ineffectively responds to acts of behavioral or conduct problems, negative implications on academic performance can occur (McEnvoy & Welker, 2000). Moreover, Barriga and colleagues (2002) noted that low academic achievement epitomizes a risk factor for poor behavioral outcomes. The behaviors displayed by students exhibiting academic underachievement can include inattention, aggression, anxiety, and negativism.

Anderson (2001) found children with ED were well below the national averages in math and reading upon entrance to school and their improvement was nearly static despite 5 years of special education services. This is troubling given these students had average levels of intellectual functioning. Barriga and others (2002) reported that aggressive and delinquent behaviors are related to academic underachievement, as was withdrawal and somatic complaints. Anxiety and depression, however, did not show a significant relationship to underachievement. Of interest in the Barriga et al. (2002) study was the finding that academic underachievement was mediated by attention problems in all significant groups. Thus, children with internalizing and externalizing behavior problems appear to be experiencing difficulties related to inattention rather than
academic achievement problems in general. It is important to note that the longer the academic and behavioral failure endures, the more likely these students will experience life-long challenges.

A concerning statistic related to the outcome of students with ED is the rate of graduation. About 50 percent of the students identified as ED drop out of school, and only 42 percent of those who graduate receive a standard diploma (U.S. Department of Education, 2001). Given the importance of basic education skills for many employment opportunities in the current job market, these students are at greater risk for future employment difficulties. Additionally, there are increased difficulties seen with individuals not graduating from school, which include legal problems (Lerner, 1997, as cited by Kortering, Braziel, & Tompkins, 2002), reduced earnings (Berktold, Geis, Kaufman, & Carroll, 1999), and difficulty accessing necessary services (e.g., mental health; Sample, 1998).

Kortering and associates (2002) conducted a study to identify factors affecting high school completion. Their findings highlighted factors within three domains – individual, family, and school. The majority of students within this study viewed education as important for their future. With this in mind, linking current education to future outcomes is a key factor to maintaining motivation. Individual concerns of students varied from wanting more school and family support to desiring changes in school policies (i.e., suspensions). Given the diversity of concerns, personal factors related to dropout will likely need to be addressed on an individual basis, such as in the students’ IEP. Family factors also had a significant role in school completion. Many students in the study came
from families experiencing increased strain from various psychosocial stressors, including low family income, blended families, and single parent households. Additionally, less than half of the parents had a high school diploma. This may illustrate the family’s perspective of the importance of education and school completion. Of the students in the study, many repeated at least one grade (Kortering et al., 2002). The link between school retention and dropout has been highlighted by other studies, as well (see Kortering, Hess, & Braziel, 1998). Increased out-of-school suspension was also reported to be a likely indication of school dropout (Kortering et al., 2002).

Sinclair, Christenson, Evelo, and Hurley (1998) noted students with learning and/or emotional difficulties are at a moderate to high risk for dropping out of school. They further suggested that students feeling engaged or connected to the school had increased rates of school completion. Thus, strategies providing opportunities for school success and “connectedness” appear to be important factors. Recommendations from the study suggested schools should begin tracking alterable behaviors (e.g., high absenteeism, suspensions) and begin to develop sustained relationships with students and families. Moreover, interventions focusing on the reduction of out-of-school suspensions and the promotion of student and family involvement in transition plans were encouraged.

With the number of factors contributing to children and adolescents with ED, there is concern with post high school outcomes. Individuals with ED tend to fall short of the national average for employment outcomes compared to peers, and many times, they hold multiple short-term jobs rather than long-term
employment (Blackorby & Wagner, 1996). The employment outcomes for these students were exacerbated if the student left high school prior to graduation (U.S. Department of Education, 2001; Rylance, 1997). Additionally, Jay and Padilla (1987) noted that the arrest rate within 3 years of students leaving school was about 70 percent.

While it is important to have awareness of the potentially severe outcomes, understanding the predictors of success is valuable in planning services for students with ED. Rylance (1997) explored post-employment predictors of adolescents identified as having ED. The study focused on individual variables as well as systemic issues, such as school counseling or therapy and vocational training. Individual characteristics, such as strengths in reading, counting, telling time, and telephone skills, predicted productive employment outcomes. As stated above, graduation from high school also provided increased employment opportunities. Vocational training and functional competencies played a further role in predicting post-school employment. Receiving counseling in school, however, failed to serve as a predictor of post-school employment, but this was thought to reflect the severity of behaviors of those receiving counseling, rather than ineffectiveness of the counseling intervention.
**Understanding the Process of Change**

Human life involves ongoing change, both positive and negative. Throughout our lifespan, we change and develop in many ways – cognitively, behaviorally, physically, and emotionally. The changes that occur in life oftentimes go unnoticed, as change is generally gradual and slow. While much of the change that occurs during life transpires naturally (e.g., physical growth, maturity, etc.), there are many occasions in which we attempt to generate change, particularly involving undesired behaviors.

Whether we are attempting to lose weight, quit smoking, or become more punctual, behavioral change can be challenging. Despite the fact that many attempt to change certain behaviors, it is probable that a number of individuals never achieve their goal, while others persist to successful change. There are certain populations in which the process of change is difficult, including individuals with addictions, weight loss, and chronic antisocial behaviors.

*Trends of behavioral change for students with ED.* As one can see from the literature cited earlier in this manuscript, outcome data for youth with ED suggest that behavioral change for this population is difficult. Multiple problems and factors can play a role in the manifestation and maintenance of conduct displayed by these students. The long-term outcomes for these students are less than promising given the information currently available (U.S. Department of Education, 2001).
The implementation of the 1997 revision of IDEA requires schools to assess and address behavioral problems that impede the academic progress of students with disabilities, as well as with his or her peers. To effect behavioral changes in children with disabilities, school-based teams are required under IDEA to utilize functional behavioral assessment (FBA) as a means to assess causal factors related to behavioral issues and lack of learning (Gable, Hendrickson, & Smith, 1999). While FBA-based interventions have demonstrated effectiveness in producing positive change in student behavior (Heckman et al., 2000), some researchers suggest the present viewpoint on the use of FBA may be limited (Gable & Hendrickson, 2000). Specific concerns include that FBA interventions have proven useful in dealing with immediate behaviors, while less evidence is available supporting its promotion of long-term or enduring positive behavioral changes (Gable & Hendrickson, 2000). In a review of literature, Heckman and colleagues (2000) reported only a few studies addressing maintenance of behavioral change following FBA interventions, and of those reported, the measures of stability in change ranged from 5 to 11 weeks. This range is not sufficient to determine the “long-term” change desired. Gable and Hendrickson (2000) discuss the need to address factors of change including self-management training, cognitive mediation, peer-mediated support, environmental modifications, and booster sessions.

Developing interventions to promote and maintain behavioral change in youth, especially those with ED, is a multifaceted and complicated process. To accomplish this, clinicians must go beyond identifying functions of behavior,
Impediments to Change Scale

antecedents, and consequences when assessing behavioral difficulties and they should begin expanding their assessment to include multiple factors such as those contributing to, enhancing, and impeding the change process.

*Transtheoretical Model of Change.* When studying the topic of change, one cannot overlook the contributions of the Transtheoretical Model (Prochaska et al., 1992; Prochaska & DiClemente, 1982; Prochaska, 1994; Velicer, Prochaska, Fava, Norman, & Redding, 1998). The use and effectiveness of the Transtheoretical Model has been demonstrated repeatedly for numerous behaviors including addictions (Prochaska et al., 1992; Prochaska, 1994; Belding, Iguchi, & Lamb, 1997), premature therapy termination (Smith, Subich, & Kalodner, 1995), acquisition of exercise (Nigg & Courneya, 1998), and improvement in quality health care. There is no current literature on its use with children or adolescents with ED. Nonetheless, the theoretical underpinnings of this model can be useful in understanding the change process of children with ED. With knowledge of the Transtheoretical Model, clinicians can extrapolate the findings to enhance knowledge of change with this population.

DiClemente and Prochaska (1982) conceptualized the notion of “stages of change” while researching the process of change that people undergo when eliminating problem behaviors. These stages are designed to determine the client’s level of readiness to change his or her behavior, in order to match treatment interventions to the client. In their original research, Prochaska and DiClemente (1982) identified five stages, but for several years only proposed a
model consisting of four (Prochaska & DiClemente, 1983). Reports that are more recent indicate the reintroduction of the fifth stage (Prochaska et al., 1992).

The stages developed by Prochaska and DiClemente (1982, 1983) are often associated with addiction or health related behaviors. However, because the stages serve to represent the motivational factors related to the change process, they can offer valuable information when working with all populations, even children and adolescents. In the **precontemplation stage**, there is no anticipated intention to change behavior, as the individual is typically unaware of the consequences of his or her behavior. Individuals in the **contemplation stage** are aware of the problem, but experience ambivalence between the pros and cons of maintaining their behavior. In the **preparation stage**, the individual intends to change behaviors in the near future and begins making small steps toward change. Individuals in the **action stage** modify behaviors, experiences, or environmental situations in order to acquire positive behavioral change. Finally, the **maintenance stage** involves the individual’s active participation and work in order to prevent relapse.

In recent years, Freeman and Dolan (2001) offered a clinical revision consisting of 10 stages of change: noncontemplation, anticontemplation, precontemplation, contemplation, action planning, action, prelapse, lapse, relapse, and maintenance. In **noncomptemplation**, the individual is not considering or even thinking about changing his or her behavior. An individual at this level may not have an awareness of the need to change or how his or her behaviors affect others. **Anticontemplation** is the stage in which an individual
reactively opposes the notion of needing to change. This stage seems to be selfprotective and individuals at this stage are often referred for treatment by external sources (Freeman & Fusco, 2000). In contrast to the original model (Prochaska, DiClemente, & Norcross, 1992), in this revision (Freeman & Dolan, 2001), precontemplation is seen as the stage in which a person begins to consider the possibility of change. In contemplation, the individual is at a point where he or she is actively considering change and has reached a point of readiness to engage in the change process.

Freeman and Dolan (2001) refer to action planning as the stage in which the therapist and patient collaboratively develop a treatment plan, thus initiating the therapeutic process. The individual then moves into the action phase, in which there is progress toward change. It is premature for clinicians helping individuals working through change to stop at this level. Despite the action toward change, lapse activation may occur, which involves individual decreasing use or ignoring the skills needed to maintain the action stage. This does not suggest that the individual reverts to pre-treatment behavior, but it does suggest the beginning of the lapse process (Freeman & Fusco, 2000). Relapse occurs when the individual returns to the behaviors that were the cause of his or her original difficulties. At this point, redirection is important, which refers to the stage when new skills and cognitions are developed and practiced to continue the change process. Finally, the maintenance stage involves the unremitting process of maintaining the progress attained.
**Impediments to Change Defined**

Despite the efforts of schools, families, and students, many children with ED do not improve from school-based interventions. As noted earlier, the U.S. Department of Education (2001) reported that as many as 50 percent of students with emotional or behavioral difficulties drop out of school and many of these children have life-long problems. Why do so many students with ED drop out of school? Why is the progress and long-term change so minimal with these students? What accounts for the dismal outcomes of these students?

In the field of mental health and medicine, when a patient is not making progress, terms such as “resistant,” “noncompliant,” and “nonadherent” are used to describe them. Situations such as not coming to sessions, coming late, changing the topic in session, refusing to talk, or not carrying out strategies between session work are all behaviors that therapists could view as “resistant” or “noncompliant” (Leahy, 2001).

The idea of resistance is not a new phenomenon, and in fact, Sigmund Freud introduced resistance as early as the 1890s (Breuer & Freud, 1893-1895/1955). Traditionally, resistance and noncompliance have been viewed as a negative characteristic of the patient. Blackwell (1976) noted that the International Congress on Patient Counseling defined the problem as, “when a patient does not follow the treatment schedules suggested to him by the physician for the management of some illness, then the patient can be described..."
as noncompliant” (p. 513). Essentially, the general view of noncompliance and resistance has been “the patient’s fault.”

In recent years, resistance has been viewed as less negative (Freeman & McCloskey, 2003). Leahy (2001) noted resistance to be a way in which a patient experiences a sense of control over a situation. Similarly, Adelman and Taylor (1986) suggested that child and adolescent patients might resist treatment in order to gain control over their lives. While the notion of resistance being negative has decreased, there continues to be emphasis on patients when resistance or noncompliance occurs. There is some evidence that a patient’s beliefs about his or her problem and his or her perceived control over the treatment process can affect treatment outcome and patient adherence (Meichenbaum & Turk, 1987; Abbott, Dodd, Gee, & Webb, 2001). However, while patient variables have an impact on adherence and compliance to treatment, it is naïve to assume that other variables do not also contribute to the patient change and treatment outcome.

A number of authors have discussed the role of therapist-patient relationship and therapeutic alliance in treatment progress (Luborsky & Crits-Christoph, 1990; Shirk & Russell, 1996; Shirk & Karver, 2003; Bordin, 1979). Bordin (1979) further highlighted the importance of collaboration on therapy goals and tasks and its relationship to working alliance and outcome. Additionally, Ellis (1985) indicated the role of environmental factors (e.g., disability factors, problems with significant others) in therapeutic resistance.
While a number of authors have discussed the resistance or non-compliance issues with adults, far less literature is available on factors affecting change with children and adolescents. One line of research comes from Kazdin and colleagues, who studied barriers to treatment participation and therapeutic change in children (see Kazdin & Wassell, 1999; Kazdin, Holland, & Crowley, 1997; Kazdin, 1995; Kazdin & Wassell, 1998). Their findings have shown socioeconomic status, parent pathology and stress, and child dysfunction tends to predict the amount of therapeutic change obtained. Barriers perceived by parents (e.g., practical obstacles associated with treatment, demands of treatment, lack of perceived relevance of treatment, and poor alliance with therapist) were also significantly related to therapeutic change. Additionally, Kazdin and Wassell (1999) noted that as the level of perceived barriers to participation in treatment increased, the amount of therapeutic change decreased. Conversely, fewer barriers to change served as a protective factor and attenuated other risk variables (e.g., parent pathology, socioeconomic status). Thus, fewer barriers to treatment resulted in greater therapeutic change. Kazdin and Wassell (2000) demonstrated that child, parent, and family functioning improve during the course of proper treatment for children with conduct disorders. Important in this finding is that the adjustments in parent and family functioning are not only clinically important to the parents and family (e.g., reduction in parent stress), but also indicate important differences that could potentially influence positive change and maintenance in the child’s behavior (Kazdin & Wassell, 2000).
Another line of inquiry that contributes insight into factors that impede change is treatment attrition. Baekeland and Lundwall (1975) conceptualized that dropping out of treatment was associated with three factors: (1) patient factors (e.g., demographic and personality factors), (2) therapist factors (e.g., therapy style and personality), and (3) environmental factors. Others have shown variables such as stress of parent, antisocial behaviors of the child, parent history of antisocial behavior, and adverse child-rearing practices to be predictive of therapy dropout with both Black and White families (Kazdin, Stolar, & Marciano, 1995; Kazdin, Holland, & Crowley, 1997; Kazdin & Mazurick, 1994).

Despite the growing literature on mechanism and moderators of therapeutic change for children in therapeutic settings, research on how students change in school settings is not available. While using functional behavioral assessments and positive behavioral supports (e.g. controlling antecedents and consequences) with students identified as ED provides effective intervention for specific problematic behaviors, they are not sufficient to address and treat the multifaceted presentation of many of these students. Even with promising interventions, a portion of children with ED does not respond to intervention or their improvement does not generalize to everyday situations. In order to produce enduring change with these students, it is necessary for school-based clinicians to explore interventions to address factors that hinder the change process of a specific student.

As noted, the terms “resistant” or “noncompliant” are commonly provided to individuals who resist change or lack compliance in mental health or medical
settings. While several individual factors contribute to a lack of change, clinicians must be aware of factors outside the client’s control that may further influence the change process. To offer a less derogatory or pejorative description, Freeman (2001) coined the term *impediments to change* when working with individuals with personality disorders. This term does not blame the individual for his or her difficulties, but instead, recognizes that many factors contribute to the lack of progress or change. Because of its nonpejorative tone, the term “impediments to change” seems fitting for children and adolescents.

The *impediments to change model*, as applied to children and adolescents, suggests that clinician must identify child, family, teacher, systemic, and contextual factors that may influence or impede progress. The identification of these factors can help promote the development of interventions to decrease barriers in treatment and to increase change mechanisms. For this manuscript, *impediments to change* are defined as *factors that interfere with a student’s progress or ability to change*.

Expanding upon the psychotherapy literature and extrapolating the results to understand the change process with youth classified with ED, as well as the barriers impeding their educational and behavioral progress, four hypothetical sources are identified within the impediments to change model: (1) student impediments; (2) family impediments; (3) systemic impediments; and (4) teacher impediments. These areas of impediment are not listed in a specific order or hierarchy, as it is assumed that each factor may hold a higher or lesser level of significance depending on a particular student’s situation.
**Student factors.** A number of factors or characteristics of the individual can either interfere with or promote progress and change in people. A number of researchers have identified “risk factors” for mental health difficulties (Coie et al., 1993; Doll & Lyon, 1998; Jessor, 1991; Valance, Fernandez, & Biber, 1998), which can also be viewed within the impediments to change model. Several individual factors of risk in youth, including delays in skill development (e.g., problem solving, social skills), interpersonal problems (e.g., peer rejection), emotional issues, and academic failure, are viewed as impediments to change.

A person’s thoughts or cognitions can have a notable effect on his or her behavior. As defined in the cognitive-behavioral literature, there is a multidirectional link between a person’s thoughts, feelings, and behaviors (Freeman, Pretzer, Fleming, & Simon, 1990, in press; Kendall, 1991, 1993; Southam-Gerow, Henin, Chu, Marrs, & Kendall, 1997). In terms of cognitive factors, both cognitive distortions and cognitive deficiencies can serve as impediments to change. There has been a considerable amount of research suggesting that aggressive children exhibit both cognitive distortions and deficiencies (Larson & Lochman, 2002).

Cognitive distortions are misinterpretations or misguided thoughts (Freeman et al., 1990, in press). For example, a student who attributes a comment made in the classroom as a personal attack would be engaging in distorted thinking (e.g., personalization). An individual’s negative perception is likely to result in negative behaviors if not mediated. If a student has a negative perception of his or her problems or if he or she perceives a lack of control or
collaboration in the interventions, there is a strong chance that the student will be less adherent, which may alter the outcomes of the interventions (Meichenbaum & Turk, 1987).

On the other hand, cognitive deficiencies refer to a lack of information processing at times when thinking would be favorable (Kendall, 1991). In other words, cognitive-deficiency refers to acting without thinking. It is common for impulsive children to perform poorly on a task because of a lack of planning or forethought (Barkley, 1998). Planning skills, behavioral inhibition, impulse control, and problem solving are encompassed under the term “executive functions.” Individuals who lack necessary executive functions may find it difficult to perform certain tasks and comply with routines or expectations (e.g., educational routine). For instance, a student who lacks behavioral inhibition may frequently engage in disruptive behavior and struggle to follow classroom rules. As a result, the teacher may view his or her actions as “malicious,” which could further exacerbate the student’s difficulties. Valance and others (1998) revealed that cognitive skills, particularly problem solving, constitute a protective psychological factor that predicts progress toward educational goals.

Another area of cognitive functioning that mediates behavior is social problem solving. Spivack and colleagues investigated interpersonal cognitive skills that correlated with specific behaviors (Spivack, Platt, & Shure, 1976; Spivack & Shure, 1974; Shure, 1992). Their finding suggested that the inability to generate alternative solutions to problems (e.g., problem-solving skills) was strongly related to impulsive behaviors, such as aggression, lack of frustration
tolerance, poor peer relationships, and lack of prosocial behaviors. Other problem-solving skills, such as consequential thinking and perspective taking were also correlated with the aforementioned behaviors (Shure, 1990). Other studies have shown that individuals who were able to generate non-aggressive solutions to problems, appraise negative or ineffective solutions to problems, and demonstrate appropriate skills in role-playing were rated as more successful in their ability to enter peer groups (Dodge, Pettit, McClaskey, & Brown, 1986). Thus, as with the cognitive distortions and cognitive deficiencies, a lack of effective problems solving skills can have a negative effect on a student and his or her behaviors.

Research on resiliency and protective factors has demonstrated the importance of well-developed social skills (Greenberg, Domitrovich, & Bumbarger, 2001; Rutter, 1985). Children with strong social skills develop relationships with children and adults that serve as a support system and their assertiveness guards them from mental health issues such as depression. Additionally, social competencies have been linked to educational progress (Valance et al., 1998) and successful functioning at home, school, and in social settings (Hansen, Giaccoletti, & Nangle, 1995). However, while having strong social skills serves as a protective mechanism, the lack of social skills conversely serves as a risk factor or an impediment to change. One cannot assume that all students have the basic skills necessary for social and emotional growth, as many children never attained the skills necessary for more adaptive functioning.
Research has demonstrated that deficits in social skills are linked to a variety of child and adolescent problems including anxiety and depression, delinquency (Dishion, Loeber, Stouthamer-Loeber, & Patterson, 1984), substance abuse, academic and vocational problems, and loneliness (Hansen et al., 1995). Hansen and colleagues (1995) further noted the bi-directional relationship between social skills and adjustment problems. Namely, students with poor social skills frequently have difficulty adjusting to new situations and those who struggle with adjustments often demonstrate poor social skills.

If you question an individual about his or her likelihood of changing a certain behavior, his or her answer is a relatively good predictor of whether change will actually occur (Miller & Rollnick, 2002). This effect is commonly referred to as self-efficacy. Self-efficacy is the personal expectation of being able to carry out a behavior or produce a desired outcome given a particular situation (Bandura, 1986). Self-efficacy is critical to success, as it motivates effort and persistence in the face of difficulty. Children with higher self-efficacy are more likely to achieve success in various areas, including academics and athletics. Self-efficacy develops in time, and children are more likely to continue behaviors or tasks when they are successful. In contrast, children who experience little success are less likely to try things in the future. Individuals with low self-efficacy often feel hopeless and believe they are unable to control or have an impact over events in their lives (Shultz & Shultz, 2001). Children with ED often experience “failure” with a variety of tasks, and thus, may not believe they can contribute to
their progress or effect change on their own. While self-efficacy is correlated to success on tasks, a lack of self-efficacy can result in stagnate efforts for change.

On a similar note, readiness to change is also an important factor to explore, as without individual motivation, change will not likely occur (Miller & Rollnick, 2002). There are various ways to view motivation to change. As described earlier in this manuscript, the transtheoretical or stages of change model proposed by Prochaska and associates (1992) provides one way to conceptualize a person’s motivation or readiness to change problematic behaviors. Prochaska and colleagues (1994) offer growing evidence on the increased therapeutic effectiveness when a therapist matches interventions to a patient’s stage of change. Freeman and Dolan’s (2001) clinical revision of the stages of change, also described above, presents a more detailed model. Both models have relevance when working with a variety of populations including children and adolescents.

To illustrate how motivation to change can serve as an impediment, consider a student who is in the anticontemplation stage (Freeman & Dolan, 2001). A student at this level will approach intervention with anger, avoidance, and a “screw you” perspective. Attempting to modify his behavior by educating about the impact of his behaviors or by simply attempting behavioral approaches alone may be met with failure. As a result, school professionals may become frustrated and either impose consequences that are more stringent or give up all together. Instead of attempting traditional strategies, professionals must meet the student at his or her stage of change and then develop a change strategy
(Freeman & McCloskey, 2003). Skillfully helping the student increase his or her awareness of the behaviors and finding alternatives to reach the same goal (e.g., camouflage the difficulties) may be the primary goal of treatment initially.

Relational factors can have both positive and negative effects on children and adolescents. Demaray and Malecki (2002) found an association between positive and negative adjustment variables and a student’s perceptions of social support. Specifically, it appears social support serves as a buffer against negative physical and psychological outcomes (Bender & Losel, 1997; Dubow, Edwards, & Ippolito, 1997; Ostrander, Weinfurt, & Nay, 1998). The presence of a positive relationship with an adult at school (e.g., mentor) has been demonstrated to improve school success and progress (Valance et al., 1998). Demaray and Malecki (2002) noted that both high peer and family support result in many positive indicators for students. The more time adolescents spend with their families, the stronger their academic achievement and the lower their incidence of externalizing problems (Duncan, Duncan, & Strycker, 2000). Conversely, low peer and family support are negative indicators and result in increased levels of adjustment and behavioral problems, delinquency, withdrawn behaviors, hopelessness, emotional problems, and a lower self-concept (see Demaray & Malecki, 2002, for review). Moreover, negative parent modeling such as parent arrests, drug use, and educational level have been correlated with child misconduct (Prochnow & Defronzo, 1997).

Demaray and Malecki (2002) further investigated the relationship between five sources of perceived social support, including parent, teacher, classmate,
close friend, and school. Their results suggested a notable relationship between overall social support and clinical as well as social adjustment or maladjustment. Parent and classmate (peer) support showed a stronger relationship to clinical and interpersonal indicators. This is consistent with research reported by Dodge and Pettit (2003) in which negative peer and parent relationships are indicators of aggressive behavior.

Demaray and Malecki (2002) also found that parent and teacher support significantly related to school maladjustment. The level of parent and teacher support a student perceives is predictive of school adjustment or maladjustment. In addition to this research, a number of studies have identified the child-teacher relationship as having implications for children’s school-related outcomes (Birch & Ladd, 1997; Howes, Matheson, & Hamilton, 1994). Specifically, the relationship between child and teacher has notable influence on aggression (Coie & Koeppel, 1990) and social competence (Mitchell-Copeland, Denham, & DeMulder, 1997). Blankemeyer, Flannery, and Vazsonyi, (2002) suggested that children’s social competence forecasts the perceived child-teacher relationship.

Relational factors likely have a bidirectional relationship to change factors. That is, children who demonstrate positive behaviors and change likely have better relationships with teachers, peers, and parents. Equally, those children with positive relationships with teachers, peers, and parents, will more often engage in positive behavior and change. On the contrary, children exhibiting negative behaviors will likely have poorer relationships with others and these
negative relationships will possibly promote negative behaviors and hinder growth for change.

Characteristics of an individual’s pathology can also be viewed as an impediment to change (Freeman & McCloskey, 2003). Issues such as rigidity, difficulty establishing relationships, impulsiveness, and limited abilities and skills can all impact progress. A number of studies have suggested that the severity of a child’s dysfunction serves as a barrier to therapeutic change (Kazdin & Wassell, 1999; Kendall, Ronan, & Epps, 1991; Webster-Stratton, 1992). This is consistent with other literature showing children with ED exhibiting externalizing problems were more often placed in restrictive special education settings (U.S. Department of Education, 2001).

It is also common for children with ED to be diagnosed with multiple disorders (Epstein & Cullinan, 1994) and as many as 39 percent of children with ED have coexisting learning disabilities or problems. Children with combined learning and emotional difficulties are at greater risk for enduring school difficulties. While children with learning difficulties alone make significant gains in reading in time with intervention, children with ED show little progress (Anderson, 2001). Academic and social failures represent a reciprocal relationship (Barriga et al., 2002; Maguin & Loeber, 1996). Maguin and Loeber (1996) noted that cognitive deficits and attention problems are common correlates of both academic performance and delinquency in children. Additionally, they found that interventions improving academic performance also reduced the prevalence of delinquency. Children with severe symptomology, processing difficulties (e.g.,
cognitive deficits and inattention), or multiple conditions (e.g., learning disabilities and ED) are likely to be at greater risk to make less overall change despite global interventions.

**Family factors.** When working with children and adolescents, the impact of family must be taken into account. Family factors involve issues experienced at home or related to home-school collaboration, including parenting, caregiver cooperation with recommendation, collaboration with school, and family stressors (e.g., mental health issues, etc.). Family circumstances such as family conflict and disorganization, poor bonding to parents, and socioeconomic factors, are potential risk factors for children (Coie et al., 1993). Additionally, variables unrelated to the child, such as parental stress and mental health, are also associated with risk for maladjustment (Garbarino & Sherman, 1980). Thus, children with emotional disturbance who are exposed to greater levels of environmental risk factors are at greater risk for poor outcomes.

Socioeconomic status has shown to be an important mediator of family structure and for many cognitive and behavioral outcomes for children (Bradley & Corwyn, 2002; Carlson & Corcoran, 2001; Duncan & Brooks-Gunn, 1997; Kazdin, Holland, & Crowley, 1997). Children who experience persistent poverty are frequently noted to exhibit developmental deficits (Duncan, Brooks-Gunn, & Klebanov, 1994). It is probable that poverty-stricken families are less prone to pursue outside resources, such as health and mental health services. This would be consistent with a report from Office of the U.S. Surgeon General suggesting
that fewer than one in five children who need treatment for a mental health condition receive such service (U. S. Department of Health and Human Services, 1999). Research by Kazdin and colleagues suggested that socioeconomic disadvantage and family circumstances (e.g., young mothers, single parent households) are factors that predict treatment termination as well as lower therapeutic change (Kazdin, Holland, & Crowley, 1997; Kazdin & Mazurick, 1994; Kazdin, Stolar, & Marciano, 1995). Given the lack of usage or early termination of services, it is expected that children living in these situations will experience lessened outcomes. Dodge, Pettit, and Bates (1994) suggested that poverty and economic stress further has a relationship to less effective parenting.

A number of studies have shown the importance of parenting to child and adolescent academic and behavioral outcomes (Patterson, Reid, & Dishion, 1992; Patterson, 1995; Schrepfeman & Snyder, 2002). Specifically, research has found coercive family interaction and negative reinforcement to serve as mechanisms of early onset child antisocial behaviors (Forgatch, 1991; Martinez & Forgatch, 2001; Snyder, 1995). Not only do these negative family interactions serve as risk factors for the development of behavioral and emotional difficulties, they can be extrapolated as patterns that hinder or impede treatment. Coercive exchanges and reinforcement of negative interactions maintain the child’s misbehavior within the home environment and often result in the child using similar behaviors in other social settings (Snyder & Patterson, 1995). To counter these effects, parent training has been shown to provide notable and enduring changes in a child’s behaviors (Sanders, Markie-Dadds, Tully, & Bor, 2000;
Schrepferman & Synder, 2002). As noted above, relational factors are also thought to impact the change process and there is a bidirectional affiliation between parent-child relationship and outcomes. Booth, Rose-Krasnor, McKinnon, & Rubin (1994) found that maternal warmth contributes to positive long-term outcomes with children, whereas others have demonstrated family dysfunction to predict delinquency (Loeber & Stouthamer-Loeber, 1986).

High levels of family dysfunction, conflict, and parental stress have been associated with premature termination of treatment and lack of therapeutic progress (Kazdin, Holland, & Crowley, 1997; Kazdin & Mazurick, 1994; Kazdin et al., 1995). Clarke-Stewart, Vandell, McCartney, Owen, and Booth (2000) suggested that child outcomes are more strongly associated with family discord, such as marital conflict rather than variables such as divorce. In fact, research has demonstrated that marital discord and conflict contributes more significantly to child difficulties than whether the family remains intact (for reviews, see Amato & Keith, 1991; Amato, 2001), and thus, family conflict is a consistent predictor of child maladjustment with both divorced and intact families. Hetherington, Cox, and Cox (1982) noted, however, that behavioral problems in children decrease when conflict between divorced parents subsides. Because of these factors, it is important to include parents in the treatment of children to provide education on the harmful effects marital conflict has on children (Zimet & Jacob, 2001).

Consistent with family dysfunction and conflict is the concept of parental stress. Many psychosocial stressors can affect parental stress level including family environment, marital issues, child difficulties, work-related problems, and
parental psychopathology. A number of researchers have shown high levels of parenting stress in parents of children with behavioral difficulties, such as AD/HD and disruptive behavior disorders (Kazdin & Whitley, 2003; Anastopoulos et al., 1992; Baker & McCal, 1995). Anastopoulos et al. (1992) found that three child variables and two parent variables predicted parenting stress of parents with children diagnosed with AD/HD. Specifically, the child factors included the severity of the child’s AD/HD, dual diagnosis (e.g., AD/HD and Oppositional Defiant Disorder), and aggressive child behaviors. Pelham and associates (1998) found that defiant behaviors in children intensified both parental stress and negative mood. Parent factors, according to Anastopoulos and colleagues (1992), included maternal health and psychopathology. Parental stress is thought to have a reciprocal relationship to child deviance (Kazdin & Whitley, 2003), in that it contributes to, and becomes affected by, the level of the child’s behavior.

Kazdin and Whitley (2003) investigated the affects of treating parental stress to enhance therapeutic change. All parents and children in the study received problem-solving skills training and the parents further received parent management training. A random group was also trained in parent problem-solving intervention to address parental stress. While all children in the study improved with treatment, those receiving the parent problem-solving intervention made further therapeutic gain. Because parental stress has been noted as a barrier to treatment (Kazdin, Holland, & Crowley, 1997), one possible explanation for the greater gain in children whose parents received parent
problem-solving intervention is that this training lessened the potential barrier of parental stress.

As with individual factors, the thoughts and perceptions of parents can have impact a child’s progress. Parenting behavior may be mediated by parents’ beliefs about why their child engages in certain behaviors. However, there is little information known about the beliefs and perceptions of parents who have children with ED. Findings have shown that parents of children with AD/HD attribute their children’s symptoms to internal reasons (e.g., biological), and they believe the behaviors are stable over time and less controllable (Jensen, Green, Singh, Best, & Ellis, 1998; Johnston & Freeman, 1997). While it is important for parents of children with AD/HD to recognize the biological nature of the disorder, a study by Johnston and Freeman (1997) further revealed that these parents also attributed comorbid oppositional and defiant behaviors to internal causes as well. When parents perceive their children’s behavior as uncontrollable or unmalleable, are they less likely to adopt and adhere to counseling and behavioral techniques to influence their children’s behaviors? Investigators have found that parents prefer nonpharmacological intervention, yet these interventions have a lower adherence than pharmacological treatments (Corkum, Rimer, & Schachar, 1999).

Parents whose children are in treatment for a psychological diagnosis are prone to having a low self-efficacy and disempowerment (Scheel & Rieckmann, 1998). These parents demonstrated negative self-judgments and more often believed that they could not help their children. Consequently, when parents
believe they cannot help their children, there is an increase in their internal stress (Scheel & Rieckmann, 1998), which is a known barrier to therapeutic change.

The final family area involves the role of home-school relationship when working with children. Since the late 1980s, a national initiative has looked at developing integrative systems of care to address the multiple difficulties facing children with ED and their families (Kutash, Duchnowski, Sumi, Rudo, & Harris, 2002). Families need to be viewed as team members and allies in the educational planning and implementation for their children (Cheney & Osher, 1997), as family involvement in education fosters commitment and collaboration. In fact, school administrators have reported that the most effective school programs for children with ED are those involving parents, teachers, and community professionals, and that a lack of communication and partnership is a major barrier to outcomes for these students (Großenick, George, George, & Lewis, 1991). However, despite the need and desire for family participation, this is not always an easy endeavor. Kutash and others (2002) noted that even when parents are satisfied with educational and related services, parent participation increases only slightly. Without parent involvement, it is more difficult to implement an intensive service program and to build interventions on a broader ecological understanding (Osher & Hanley, 2001).

Izzo, Weissberg, Kasprow, and Fendrich (1999) indicated that parent involvement related significantly to improvements in school performance, despite the magnitude of their finding being small. The quality of parent-teacher interactions strongly predicted improvements in children’s behavior and
academic achievement. Of particular interest, however, was that the quantity of parent-teacher interactions lead to children behaving more poorly. One explanation for this finding is that existing child behavior problems were among the most frequent reasons for parent-teacher contacts. These findings support the importance of positive and constructive interactions between parents and teachers, rather than sheer quantity of contacts.

Systemic factors. Considering how the school environment contributes to children’s behavior, it is apparent that the school system can either promote or hinder positive change. A number of systemic factors such as school climate, school policies, and lack of services can influence student success.

Walker and Shinn (2002) indicated positive school climate to be one of the protective factors within the school context. The term school climate is broad by definition but involves a variety of components including communication patterns, norms about how things are done in the school, patterns of influence, and rewards and sanctions (McEvoy & Welker, 2000). Many school administrators, however, see student problems primarily stemming from factors outside the school (Allingon, McGill-Franzen, & Schick, 1997). This misperception may impede school administration from engaging in school climate changes that could have a significant benefit on children. Instead, many schools are implementing harsh, zero-tolerance policies to handle such students and behaviors (U.S. Department of Education, 2001).
Despite the view of administrators, a number of researchers have demonstrated the positive influences that effective schools can have on students regardless of home conditions, social status, gender, race, and ethnicity (McEvoy & Welker, 2000). School systems with lower levels of disorder often have systematic school discipline procedures, pleasant work conditions, structured rewards systems for appropriate behaviors, and good teacher-child relationships (Sprick, Howard, Wise, Marcum, & Haykin, 1998; Sugai, Lewis-Palmer, & Hagan, 1998). In contrast, schools having a higher level of behavior problems often have unclear rules, inconsistent enforcement, indirect responses to student behaviors, lack of knowledge and agreement about rules, and no response to student misconduct (Welsh, Stokes, & Greene, 2000). Morrison, Furlong, and Morrison (1997) cited six factors that affect academic and social development of students, one of which was a negative school climate. Morrison and colleagues (1997) noted that negative school climate involved teacher apathy, authoritarian leadership styles, and lack of teacher-student participation. Additionally, students in ineffective schools do not believe in the authenticity of the school system’s rules, thus making it less likely they will follow through on what is expected.

While it necessary for schools to have discipline procedures in place, the type of procedures can have impact, not only on school climate but also on outcomes for students. Several researchers have found that effective schools invest their resources in strategies that prevent behavioral difficulties, rather than focus primarily on consequences (Furlong, Morrison, Chung, Bates, & Morrison, 1997; Walker et al., 1996). Walker and others (1995) reported that a
comprehensive approach to school discipline is one that teaches appropriate behaviors, matches the level of intervention with the level of behavior problems, and designs and integrates multiple systems that deal with a range of discipline challenges. In order to be more efficient and effective in improving school discipline, it is important to view inappropriate student behavior as an outcome of an ineffective system (Jenkins & Jenkins, 1995). With anticipation, this view will lessen the use of ineffective practices such as suspensions and expulsions.

The types of interventions used by schools also affect students directly. Many schools, however, employ strategies that lack research-based validation on intervention effectiveness and efficacy. The U.S. Department of Health and Human Services Report (1999) called for research on evidence-based practices in order for systems intervention to produce child-level change. Yet, many school systems, unfortunately, continue to use unproven approaches to address student problems, instead of investing time and resources into evidence-based practices.

Walker and Shinn (2002) indicated the need for schools to engage in school-wide primary prevention strategies to focus on enhancing protective factors in order to keep minor problems from developing into ones that are more serious. Primary prevention strategies are applied to all students in the school. One such approach to primary prevention is Effective Behavior Support (Sugai et al., 2002), which provides general strategies intended to create a predictable and prosocial environment. The lack of effective school-wide practices may result in elevated behavioral problems. Effective school-wide behavioral support intervention is analogous to a strong reading curriculum. If the school's reading
curriculum is poor, then the school will see a rise in reading difficulties in children. Likewise, schools with ineffective or inefficient school-wide behavioral programs will have an increase in behavioral referrals and discipline problems. Strong school-wide rules and expectations will further serve as a foundation for classroom discipline (Sugai et al. 2002).

Beyond providing school-wide and classroom interventions to all students, a group of students (approximately 1 percent to 5 percent) will continue to display chronic patterns of disruptive or destructive behaviors (Sugai et al., 2002). These students will require intensive interventions that go beyond global strategies. In these cases, schools have become the de facto mental health service provider (Roberts, Jacobs, Puddy, Nyre, & Vernberg, 2003). The use of functional behavior assessments and behavioral support systems was discussed earlier in this manuscript. However, another system approach to providing interventions to students is school-based mental health programs.

Weist (1999) reports countless advantages of school-based mental health programs including unparalleled accessibility, enhanced productivity, reduced stigma, increased prevention activities, reduced cost, and initial evidence of effectiveness. A number of preliminary reports have provided support in the effectiveness of school-based mental health programs (see Illback, Kalafat, & Sanders, 1997). While services provided outside the school setting have failed to generalize across settings and time (Braswell & Kendall, 2001; Kazdin, 1993), schools can have their greatest potential impact in this area (Evans, 1999). As an example, a study by Robinson and Rapport (2002) demonstrated the
effectiveness of school-based day treatment in the reduction of internalizing and externalizing behaviors in children during a 9-month period.

However, despite the effectiveness of providing such services, few schools actually provide this type of programming for students. As a result, children with ED receive services in more restrictive settings, as reported earlier (U.S. Department of Education, 2001). Many schools do not have the resources to provide comprehensive mental health services and prevention programs (Adelman & Taylor, 1999). Thus, the lack of school system resources can have a negative impact on students’ educational and behavioral progress and it may be viewed as an impediment to change.

Teacher factors. Teachers are an important aspect in children’s lives. Most people can remember good and bad teachers they have had and could name those who have affected their lives in a positive or negative manner. A number of teacher characteristics or actions can either cultivate or obstruct a student’s progress. Teacher factors, such as training, attributions, self-efficacy, and use of interventions, can all impact students.

The issue of trained teachers is one that has been called into question in recent years. Schools have struggled to attract and retain qualified teachers, especially for special education populations (Sawka, McCurdy, & Mannella, 2002). Because of this, schools have had to use new or, more concerning, non-credentialed teachers. The Urban Teaching Collaborative (2000) reported that 82% of urban school districts used non-credentialed teachers. Having qualified
personnel is a basic component in providing appropriate and effective programs for children with ED (Smith, 1997). However, it is common that the least prepared teachers are found in classrooms with the most challenging students, such as ES programs (Hasselkom & Calkins, 1993).

Not only is the shortage of teachers an issue, but factors related to the training of teachers is also of concern. Kauffman (1994) has suggested that the training of special educators has been “superficial,” resulting in a lack of expertise. Osher, Osher, and Smith (1994) noted that training does not target specific skills required for working with ED students. These reported deficits in training must be addressed, especially given that both general and special education teachers believe they are ill equipped to provide effective education to students with emotional and behavioral difficulties (Bullock, Ellis, & Wilson, 1994; Maag & Katsiyannis, 1999). Accordingly, the impact of untrained teachers, or teachers who believe they are not properly trained, to handle the problems intrinsic to children with ED can notably impede change in children.

This lack of training can influence several aspects of working with children, namely the teachers’ thoughts or attributions about children and the teachers’ self-efficacy. As reported earlier, studies have found that teachers’ perceptions of their classroom management and teachers’ beliefs that they could have an affect on students (self-efficacy) contributed to teachers’ recommendations for more restrictive placements for ED students (Frey, 2002). Consistent with this finding, research has shown that high levels of teacher self-efficacy are associated with acceptance toward the child, persistence in helping the student improve, and less

Perceptions and attributions of a student’s behaviors can further have a direct impact on teacher attitude toward the student. Georgiou and colleagues (2002) studied teacher attributions of student failure. Their findings suggested that teachers responded in one of two ways – pity or anger. When teachers attributed student low achievement to low abilities, the teachers reacted with pity. When teachers accepted some responsibility for student performance, they were more likely to persist and not give up. Teachers responded with rejection and anger toward children when the children’s lack of effort was perceived as the cause of failure. Consequently, when teachers attributed failure to low effort from the child, they were more likely to reduce or discontinue their effort in improving or motivating the student.

Similarly, Alderman and Nix (1997) reported that teachers tend to select using isolation or sending a negative note home to parents when they are not aware of the reason for a child’s behaviors. However, when teachers understand that the misbehavior may be the result of family circumstances, they are less likely to use these techniques. Furthermore, when teachers received an explanation for behaviors, they were more likely to use point systems and positive contact with parents. The findings of this study are consistent with past investigations suggesting that consultants working with students exhibiting behavioral problems should inform teachers about the students’ life conditions (Alderman & Gimpel, 1996).
The aforementioned teacher factors have an impact on the student directly, as well as on the teachers’ selection and use of interventions. Some teachers continue to use strategies and approaches they are comfortable with, rather than those interventions with empirical support. Vaughn, Klingner, and Hughes (2000) reported a significant disparity between the knowledge of evidence-based practice and the extent to which teachers are applying such knowledge. Malouf and Schiller (1995) suggested that three factors contribute to the disconnect between knowledge and practice – teacher knowledge and learning (e.g., connecting knowledge and experience), teacher attitudes and beliefs (e.g., attitudes about research), and contextual factors (e.g., time, administrative directives, and demands). While all these factors have relevance in the teachers’ use of interventions, issues of proper training have been shown to increase treatment integrity with teachers.

In particular, Sterling-Terner, Watson, and Moore (2002) examined the effects of direct and indirect training (through consultation) on both treatment integrity and treatment outcome. Their findings supported that teachers receiving direct training, as compared to indirect methods, had increased levels of treatment integrity. Following the use of indirect training, teachers were less compliant with the treatment and they continued to have trouble with their students. Conversely, as the treatment integrity increased, so did positive treatment outcomes.
Purpose of the Study

Past and current research has demonstrated that children and adolescents with ED are likely to experience increased levels of academic and social failure without proper intervention. Current interventions in the schools such as FBA and positive behavioral support plans, show promise in preventing the occurrence of behavioral problems and offering short-term solutions. However, these strategies alone do not appear to be adequate to clarify the multifaceted array of individual, family, school, and pathological factors related to ED. Given the seriousness of the problems and outcomes facing children and adolescents with ED, there is a need to have a valid and reliable instrument to assist in identifying “impediments to change.”

It is anticipated that the identification of factors associated with impeded change will assist in offering a clearer understanding of the student’s problems, and will aid in conceptualizing issues that warrant treatment. This conceptualization may be able to provide clinicians with a basis from which to offer prevention and intervention strategies intended for the student, as well as to recommend adjunctive treatment options to address other variables (e.g., family, teacher, school, etc.) in order to promote lasting change.

The Impediments to Change Scale: Educational Version (see Appendix A), developed in conjunction with Arthur Freeman, Ed.D., is designed to assist clinicians in identifying impediments or factors that hinder academic and behavioral progress in students classified as having an ED. A central purpose of
obtaining this information is to provide clinical direction toward focused individual and/or adjunctive interventions to increase the student’s opportunity for positive change.

During the development of the scale, four areas emerged that are the focus of the items; however, this list will be further honed through factor analysis:

1. **Individual impediments** – items related to characteristics of the child that interfere with progress, such as lack of readiness or motivation to change, negative thoughts or feelings, pathological factors, or lack of skill development (e.g., problem solving).

2. **Family impediments** – items that reflect issues experienced at home or related to home-school collaboration, including caregiver cooperation, family’s beliefs about education, collaboration with school, and family stressors and discord (e.g., mental health issues, etc.).

3. **Systemic impediments** – items that explore factors of the school environment that interfere with student success, such as ineffective school discipline (e.g., suspensions, etc.), school policies (e.g., zero-tolerance), and safety issues.

4. **Teacher impediments** – items that involve teacher characteristics or actions that hinder the student’s progress, including ineffective behavior management, poor planning, lack of training, and negative thoughts and perceptions.
The primary goal in this investigation is to begin the validation process of the *Impediments to Change Scale: Education Version*, particularly with children and adolescents identified as having an ED under the Individuals with Disabilities Education Act (IDEA) of 1997. Specifically, this study will examine the scale’s internal consistency and conduct an exploratory factor analysis to identify indices or factors related to “impediments to change.”

**Research Hypotheses**

This study will address the following hypotheses:

1. Impediments affecting change in children with ED can be quantified and measured by means of a properly constructed rating scale.

2. Using an exploratory factor analysis, clusters will emerge relating to a lack of change in children with ED including student impediments, teacher impediments, family impediments, and systemic impediments.

3. The *Impediments to Change Scale – Educational Version* will demonstrate inter-rater reliability between consulting school psychologists and instructional advisors.

4. Students demonstrating higher total scores on the *Impediments to Change Scale – Educational Version* will have lower rates of change as rated by classroom teachers.
Chapter 2

Methods

Participants

The subjects for this study were selected from an Intermediate Unit in the Commonwealth of Pennsylvania, which provides special education and related educational services to 25 school districts in a three-county area. Teachers and students for this study represented a convenience sample, as they were selected for participation from Emotional Support programs provided by the Intermediate Unit.

To obtain teacher participation for this study, a presentation was held during the regional Emotional Support staff meeting in each of three counties. The responsible investigator provided the teachers with an overview of the intended study and then asked the teachers to volunteer for participation. While 60 teachers initially chose to participate in the study, two withdrew for personal reasons. Therefore, a total of 58 (79 percent) teachers participated in the study and in the recruitment of students. Inclusion criteria for teachers included their (1) informed consent, (2) willingness to contact parents for student participation, and (3) current involvement teaching in an Emotional Support classroom.

The teachers initiated student participation by contacting parents of students in their classroom. The teachers telephoned parents, explained the study, and sent information packets home for review. From the 58 teachers who
consented to participate in the study, only 22 (37.9 percent) were able to obtain participation from students and parents from their classrooms. Of the 702 information packets sent home to parents, a total of 91 (13 percent) parent and student dyads chose to participate in the study.

Each student in this study was previously identified as having ED according to a three-tiered identification process set forth by the Intermediate Unit. This process first consisted of a pre-referral intervention team meeting used to design and implement behavioral strategies to assist the student. Those students not showing behavioral progress following the pre-referral interventions were then referred for a multidisciplinary team (MDT) evaluation. This MDT evaluation, including a psychological assessment, was conducted by a certified school psychologist, in conjunction with other professionals working with the student. Students identified as having an ED were subsequently referred for a second level (or second opinion) evaluation conducted by either a Board Certified Child Psychiatrist or a separate certified school psychologist to confirm the presence of ED.

Inclusion criteria for students participating in this study included (1) the previous identification as having an Emotional Disturbance in accordance with IDEA of 1997 with the three-tiered process described above; (2) the current participation in an Emotional Support program; (3) the consent of parents; and (4) the consent and participation of the classroom teacher. Exclusion criteria for students included (1) their refusal to participate after once informed about the
study; (2) their parents’ reluctance to provide consent; or (3) their teachers’ decline for classroom participation.

Procedures and Design

Emotional Support teachers attending their regional teachers meetings were solicited for voluntary involvement for this study. Information regarding the nature of the study, as well as the details regarding their participation, was presented to teachers at each meeting. The information was presented to 73 teachers, and 58 (79 percent) participated in the study. Teachers willing to participate in the study were asked to sign a teacher version of the Informed Consent Form (see Appendix E) and to complete the Teacher Questionnaire (see Appendix D) in order to obtain demographic data. The teachers were provided with the necessary information to enable them to assist in obtaining informed consent from the parents or legal guardians in order for students to participate in the study. During the training session, teachers received information on how to describe the study, how to address questions, how to obtain informed consent, and how to refer parents or guardians to the investigators for further questions.

Following the sessions, the teachers contacted the parents or guardians of each student in their classroom to explain the study and to inform them that an information packet regarding the study would be sent home. A total of 702 packets were given to teachers for distribution. The packet sent to the parents or
guardians included a *Cover Letter* (see Appendix F), *Informed Consent Form* (see Appendix G), *Study Summary for Students* (see Appendix H), and *Caregiver Questionnaire* (see Appendix B). Before signing the *Informed Consent Form*, the parents or guardians were asked to read the *Study Summary for Students* to their child to ensure the child’s knowledge that questions will be answered about them. Those parents or guardians rendering consent were further asked to complete the *Caregiver Questionnaire*, which provided demographic information about the child and family. To maintain confidentiality, parents or guardians were provided an envelope to secure and return the *Informed Consent Form* and the *Caregiver Questionnaire* to the child’s teacher. The emotional support teachers then forwarded the sealed envelopes to the responsible investigator. Of the 702 packets sent out, 91 (13 percent) were returned with parent consent. Of further importance, the responsible investigator received either telephone calls or notes from 28 parents or guardians (3.98 percent) explaining their reasons for choosing not to participate in the study. This will be discussed further in the Discussion section of this manuscript.

For each student whose parents provided written consent, the emotional support teacher completed the *Student Questionnaire* (see Appendix C). Although the teacher was aware of the student’s identity when completing the forms, the forms did not contain student-identifying data.

The consulting school psychologist for each classroom completed the *Impediments to Change Scale: Educational Version* (see Appendix A) on each student in the study. The psychologists completed the scale based on their
knowledge of the student. They were asked to complete the scale without consulting with other school-based team members or student records, as indicated in the Directions for Scale Completion (See Appendix I). While the consulting school psychologist knew the identity of the student when completing the scale, no identifying information was placed on the scale itself. As with other forms used in this study, the rating scale had a numerical code in order to match the data during the entry process to maintain anonymity. The psychologist placed all completed forms in a sealed envelope and returned them to the responsible investigator. In order to obtain inter-rater reliability, 25 students were randomly selected, and the Instructional Advisor serving the classroom also completed the Impediments to Change Scale: Educational Version on the student for comparison. The students in this study did not have any direct involvement in the data collection process.

**Measures**

The Impediments to Change Scale: Educational Version (Appendix A), developed by Christner and Freeman, was used to rate each participant in this investigation. The instrument consists of 78 items derived from a review of literature on children and adolescents with ED, as well as through a focus group discussion involving six doctoral level clinical psychology students, two school psychologists, and two licensed clinical psychologists asked to draw upon their experiences related to change. The item pool generated from these discussions
went through several revisions regarding content and wording. Later, three Certified School Psychologists and a Supervisor of Emotional Support Services evaluated the 78-item scale and provided input regarding the appropriateness of the items in order to obtain content validity.

In addition to signing the *Informed Consent Form*, the parent or legal guardian of the student completed the *Caregiver Questionnaire* (Appendix B) developed for the purpose of this study. This questionnaire, consisting of 14 items, inquired about family demographic information, child behaviors, and caregiver perceptions of the student’s progress or change.

Each teacher in the study signed a teacher version of the *Informed Consent Form* and completed two additional forms. The *Teacher Questionnaire* (Appendix D) is a seven-item survey used to gather information regarding the teacher’s training and experience. The *Student Questionnaire* (Appendix C) involves eight questions used to obtain information related to the student’s placement and progress within the school setting.
Chapter 3

Results

The primary purpose of this study was to begin the validation process of the *Impediments to Change Scale: Education Version*, particularly with children and adolescents identified as having an ED under the Individuals with Disabilities Education Act (IDEA) of 1997. This study attempted to identify factors impeding change, to determine inter-rater reliability between school psychologists and instructional advisors, and to demonstrate that higher total scores on the *Impediments to Change Scale: Educational Version* have a negative correlation with teacher rating of student change. This investigation used the Statistical Program for the Social Sciences (SPSS) 11.5 to create a database in which all information was entered. The database was independently checked and verified for accuracy.

*Descriptive Statistics*

Statistical analyses of demographic data for both teachers and students are descriptive in nature and are divided into categorical and scaled data. The primary caregiver of each of the students provided demographic information regarding the student and family by completing the *Caregiver Questionnaire* (see Appendix B). Additionally, the classroom teacher furnished information about the student using the *Student Questionnaire* (see Appendix C), as well as on his or
Teacher data. Of the 72 teachers presented with packets, 60 initially provided consent. Two teachers later withdrew from the study because of personal circumstances, bringing the total number to 58 (79 percent). The majority of the teachers participating in the study have been teaching for less than 10 years (N = 40, 69 percent), while the remaining teachers worked between 11 and 26 plus years (N = 18; 31 percent). Most of the teachers were teaching in Emotional Support (ES) programs located in a public school (N = 42, 72.4 percent) with the rest of the teachers providing service in ES programs in alternative settings (N = 4, 6.9 percent), alternative education programs (N = 1, 1.7 percent), partial hospitalization programs (N = 2, 3.4 percent), and residential programs (N = 9, 15.5 percent). Teacher education was divided between the bachelor (N = 32, 55.2 percent) and the masters (N = 26, 44.8 percent) levels of training. Among the teachers providing consent for participation, only 56.9 percent (N = 33) held certification as a special education teacher while 43.1 percent (N = 25) held an emergency certification. Of those teachers without a special education certification, 19 percent (N = 11) did not have any certification in education, whereas the others held certification in either elementary (N = 8, 13.8 percent) or secondary (N = 6, 10.3 percent) education. Table 1 provides an overview of descriptive teacher data including education levels, years teaching, certifications held, and location of classrooms.
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<th>Variable</th>
<th>N</th>
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</tr>
<tr>
<td>Reading Specialist</td>
<td>2</td>
<td>3.4%</td>
</tr>
<tr>
<td>School Counselor</td>
<td>1</td>
<td>1.7%</td>
</tr>
<tr>
<td>Special Education</td>
<td>33</td>
<td>56.9%</td>
</tr>
<tr>
<td>Other</td>
<td>7</td>
<td>12.1%</td>
</tr>
</tbody>
</table>
Student data. Twenty-two teachers (37.9 percent) were able to secure consent for participation from students from their classrooms. Most of the students in the study were male (N = 67, 73.6 percent), while 26.4 percent (N = 24) were female. This is consistent with other studies showing a greater number of males receiving services for ED (Henrickson et al., 1998). With students in the study ranging in age from 5 to 19 years, the average was 12 years old (SD = 3.5). Accordingly, the average grade level was 7 (SD = 3.5) with students across all grade levels from Kindergarten through grade 12 participating. The majority of the students were Caucasian (N = 83, 91.2 percent) and minorities included Hispanic (N = 2, 2.2 percent), Biracial (N = 5, 5.5 percent), and American Indian (N = 1, 1.1 percent). Table 2 provides an overview of student demographic information.

Of the 91 students in the study, 69.2 percent (N = 63) had multiple diagnoses according to caregiver reports. The most prevalent diagnosis was Attention-Deficit/Hyperactivity Disorder (N = 75, 82.4 percent) followed by mood disorders (N = 37, 40.7 percent), disruptive behavior disorders (N = 32, 35.2 percent), anxiety disorders (N = 20, 22 percent), post-traumatic stress disorders (N = 17, 18.7 percent), learning disorders (N = 15, 16.5 percent), adjustment disorders (N = 8, 8.8 percent), autism spectrum disorders (N = 6, 6.6 percent), psychotic disorders (N = 1, 1.1 percent), mental retardation (N = 1, 1.1 percent), and personality disorders (N = 1, 1.1 percent). Three caregivers (3.3 percent) were unable to identify their child’s diagnosis. In order to receive special education services in addition to ES programming, 42.9 percent (N = 39) had
### Table 2

**Student Data**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>SD</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>12.33</td>
<td>3.53</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grade</td>
<td>6.79</td>
<td>3.51</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>67</td>
<td></td>
<td>73.6%</td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>24</td>
<td></td>
<td>26.4%</td>
<td></td>
</tr>
<tr>
<td>Race</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Caucasian</td>
<td>83</td>
<td></td>
<td>91.2%</td>
<td></td>
</tr>
<tr>
<td>Hispanic</td>
<td>2</td>
<td></td>
<td>2.2%</td>
<td></td>
</tr>
<tr>
<td>Biracial</td>
<td>5</td>
<td></td>
<td>5.5%</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>1</td>
<td></td>
<td>1.1%</td>
<td></td>
</tr>
<tr>
<td>Repeated A Grade</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>26</td>
<td></td>
<td>28.6%</td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>65</td>
<td></td>
<td>71.4%</td>
<td></td>
</tr>
<tr>
<td>Receiving Counseling</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>48</td>
<td></td>
<td>52.7%</td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>43</td>
<td></td>
<td>47.3%</td>
<td></td>
</tr>
<tr>
<td>Receiving Medication</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>60</td>
<td></td>
<td>65.9%</td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>31</td>
<td></td>
<td>34.1%</td>
<td></td>
</tr>
<tr>
<td>Level of ES Service</td>
<td>Count</td>
<td>Percentage</td>
<td></td>
<td></td>
</tr>
<tr>
<td>---------------------</td>
<td>-------</td>
<td>------------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Full-time</td>
<td>28</td>
<td>30.8%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Part-time</td>
<td>54</td>
<td>59.3%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Resource</td>
<td>6</td>
<td>6.6%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Itinerant</td>
<td>1</td>
<td>1.1%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Full Inclusion</td>
<td>1</td>
<td>1.1%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>1</td>
<td>1.1%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
secondary educational classifications including learning disabilities (N=19, 20.9 percent), speech/language impairments (N=10, 11 percent), hearing impairments (N=4, 4.4 percent), autism (N=2, 2.2 percent), and mental retardation (N=1, 1.1 percent). See Table 3 for a summary of student diagnosis and educational classification data.

Approximately half of the students (N = 48, 52.7 percent) received psychological counseling services outside the school and 65.9 percent (N = 60) received pharmacological intervention. As for level of intervention, most of the students received either full-time (N = 28, 30.8 percent) or part-time (N = 54, 59.3 percent) ES services. Less restrictive intervention, such as resource room (N = 6, 6.6 percent), itinerant service (N = 1, 1.1 percent), and full inclusion (N = 1, 1.1 percent) were used less frequently.

*Family Data.* Families of children in this study reported household incomes ranging from less than $12,000 to more than $50,000. Approximately 76 percent (N = 69) of caregivers reported having at least a high school diploma, with 8.8 percent (N = 8) receiving a GED and 15.4 percent (N = 14) dropping out of school prior to graduation. At least one of the students’ parents was diagnosed with a mental health condition in 37.4 percent (N = 34) of the cases. Nine of the caregivers (9.9 percent) were unaware of the mental health status of one of the students’ parents. See Table 4 for a review of family demographic data.
Table 3

Student Diagnosis and Classification

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>DSM-IV-TR Diagnosis</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Attention-Deficit/Hyperactivity Disorder</td>
<td>75</td>
<td>82.4%</td>
</tr>
<tr>
<td>Disruptive Behavior Disorder</td>
<td>32</td>
<td>35.2%</td>
</tr>
<tr>
<td>Mood Disorder</td>
<td>37</td>
<td>40.7%</td>
</tr>
<tr>
<td>Psychotic Disorder</td>
<td>1</td>
<td>1.1%</td>
</tr>
<tr>
<td>Mental Retardation</td>
<td>1</td>
<td>1.1%</td>
</tr>
<tr>
<td>Personality Disorder</td>
<td>1</td>
<td>1.1%</td>
</tr>
<tr>
<td>Anxiety Disorder</td>
<td>20</td>
<td>22.0%</td>
</tr>
<tr>
<td>Adjustment Disorder</td>
<td>8</td>
<td>8.8%</td>
</tr>
<tr>
<td>Substance Abuse Disorder</td>
<td>0</td>
<td>0.0%</td>
</tr>
<tr>
<td>Autism/PDD</td>
<td>6</td>
<td>6.6%</td>
</tr>
<tr>
<td>Learning Disorder</td>
<td>15</td>
<td>16.5%</td>
</tr>
<tr>
<td>Post-Traumatic Stress Disorder</td>
<td>17</td>
<td>18.7%</td>
</tr>
<tr>
<td>Unknown</td>
<td>3</td>
<td>3.3%</td>
</tr>
<tr>
<td>Other</td>
<td>14</td>
<td>15.4%</td>
</tr>
<tr>
<td>Multiple Diagnoses</td>
<td>63</td>
<td>69.2%</td>
</tr>
<tr>
<td>Secondary Educational Classification</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Learning Disability</td>
<td>19</td>
<td>20.9%</td>
</tr>
<tr>
<td>Speech/Language Impairment</td>
<td>10</td>
<td>11.0%</td>
</tr>
<tr>
<td>Mental Retardation</td>
<td>1</td>
<td>1.1%</td>
</tr>
<tr>
<td>Hearing Impairment</td>
<td>4</td>
<td>4.4%</td>
</tr>
<tr>
<td>Autism/PDD</td>
<td>2</td>
<td>2.2%</td>
</tr>
<tr>
<td>Not Sure</td>
<td>7</td>
<td>7.7%</td>
</tr>
</tbody>
</table>
Table 4

*Family Data*

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Parent Education</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8&lt;sup&gt;th&lt;/sup&gt; grade or less</td>
<td>4</td>
<td>4.4%</td>
</tr>
<tr>
<td>Dropped out of high school</td>
<td>10</td>
<td>11.0%</td>
</tr>
<tr>
<td>GED</td>
<td>8</td>
<td>8.8%</td>
</tr>
<tr>
<td>High school graduate</td>
<td>33</td>
<td>36.3%</td>
</tr>
<tr>
<td>Trade school</td>
<td>8</td>
<td>8.8%</td>
</tr>
<tr>
<td>Some college</td>
<td>16</td>
<td>17.6%</td>
</tr>
<tr>
<td>College graduate</td>
<td>11</td>
<td>12.1%</td>
</tr>
<tr>
<td>Other</td>
<td>1</td>
<td>1.1%</td>
</tr>
<tr>
<td><strong>Annual Income</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than $12,000</td>
<td>14</td>
<td>15.4%</td>
</tr>
<tr>
<td>$12,000 to $19,999</td>
<td>18</td>
<td>19.8%</td>
</tr>
<tr>
<td>$20,000 to $24,999</td>
<td>11</td>
<td>12.1%</td>
</tr>
<tr>
<td>$25,000 to $37,999</td>
<td>20</td>
<td>22.0%</td>
</tr>
<tr>
<td>$38,000 to $50,000</td>
<td>14</td>
<td>15.4%</td>
</tr>
<tr>
<td>More than $50,000</td>
<td>14</td>
<td>15.4%</td>
</tr>
<tr>
<td><strong>Mental health diagnosis</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>34</td>
<td>37.4%</td>
</tr>
<tr>
<td>No</td>
<td>48</td>
<td>52.7%</td>
</tr>
<tr>
<td>Don’t know</td>
<td>9</td>
<td>9.9%</td>
</tr>
</tbody>
</table>

Inferential Statistics

Hierarchical cluster analysis. The initial goal for this study was to conduct an exploratory factor analysis on the Impediments to Change Scale: Educational Version. However, in order to conduct a factor analysis properly, literature suggests a minimum of five subjects for every variable entered into the factor analysis (Gorsuch, 1983). Because the number of subjects for this study was significantly less than anticipated (initially attempted to obtain 390 subjects), a hierarchical cluster analysis was used instead (Ward, 1963). Hierarchical cluster analysis is a nonparametric means to classify data into meaningful structures or clusters.

This analysis was based on a 78 X 78 proximity matrix of squared Euclidean distances computed from profiles for the items, as represented by the items’ stimulus coordinates. Based on the number of hypothesized variables predicted, data was forced into four separate clusters. One of the clusters contained only one item, and thus, was dropped. The cluster analysis, therefore, resulted in three distinct clusters of items. Table 5 provides a summary of items loading on each cluster.

Cluster 1, called Student Impediments, consisted of 16 items. This cluster appeared to measure factors inherent to the student, such as lack of motivation, rigidity, impulsiveness, deficient personal resources, and negative attitude.

Cluster 2, called Family Impediments, consisted of 13 items. The items within the cluster provided information related to contextual and family factors.
### Impediments to Change Scale: Educational Version Clusters based on Hierarchical Cluster Analysis

(Full Scale Alpha = .96)

**Cluster 1 (Alpha = .91) Student Impediments**

<table>
<thead>
<tr>
<th>Number</th>
<th>Item</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>The student lacks the necessary executive functions (e.g., planning, behavioral inhibition, etc.) to comply with the educational routine and expectations.</td>
</tr>
<tr>
<td>2.</td>
<td>The student responds to peer-pressure.</td>
</tr>
<tr>
<td>6.</td>
<td>The student is overly dependent on others.</td>
</tr>
<tr>
<td>8.</td>
<td>The student’s rigidity prevents compliance with educational and behavioral goals at school (e.g. cannot change routines).</td>
</tr>
<tr>
<td>19.</td>
<td>The student responds impulsively.</td>
</tr>
<tr>
<td>25.</td>
<td>The student does not display problem-solving skills.</td>
</tr>
<tr>
<td>31.</td>
<td>The student displays deficient personal resources (e.g., social skills, problem solving skills, etc.).</td>
</tr>
<tr>
<td>37.</td>
<td>The student experiences difficulty interpreting others’ behaviors (e.g., misreads nonverbal cues, etc.).</td>
</tr>
<tr>
<td>38.</td>
<td>The student receives secondary gain from his or her negative actions (e.g., attention from others, escape from work, etc.).</td>
</tr>
<tr>
<td>41.</td>
<td>The student presents a negative attitude regarding school/education.</td>
</tr>
<tr>
<td>47.</td>
<td>The student uses limited or poor self-monitoring skills.</td>
</tr>
<tr>
<td>54.</td>
<td>The student lacks motivation necessary to change behaviors.</td>
</tr>
<tr>
<td>55.</td>
<td>The student has difficulty establishing trust with others.</td>
</tr>
<tr>
<td>67.</td>
<td>The student does not believe a problem exists and/or he or she can handle the problems that arise.</td>
</tr>
<tr>
<td>76.</td>
<td>The student is not ready to engage in behavioral or educational change.</td>
</tr>
</tbody>
</table>
77. The student does not comply with the educational rules and expectations.

Cluster 2 (Alpha = .92) Family Impediments

Number and Item

3. The family has a limited support network.
9. The family does not have confidence in their abilities to change this child’s behavior.
10. The student lacks confidence in his or her skills to change (self-efficacy).
12. The family possesses limited financial resources to obtain outside help.
14. There are environmental stressors (e.g., family discord, divorce, etc.).
16. Mental health issues within the family affect this student.
17. There are family beliefs about seeking help that interfere with progress.
28. The family does not value or invest time in education.
30. There are sociocultural variables that prevent the family from seeking assistance.
32. There is a family history of alcohol or drug use.
33. There is minimal collaboration between teacher and parents/caregivers.
57. The family uses ineffective behavior management or discipline procedures at home.
62. The family has a limited understanding of the educational or treatment goals.

Cluster 3 (Alpha = .96) Systemic Educational Impediments

Number and Item

4. The family places unrealistic or conflicting demands on the student.
5. The teacher believes his or her way of handling the student is “the only way.”
11. The school does not have the resources available to help this student (e.g., mental health services, counseling, etc.).
13. The environment is unsafe, requiring the student to “stay tough.”
15. The educational goals are unclear.
18. Multiple behavioral symptoms result in an unclear starting point for treatment.
20. The student expresses negative thoughts about previous educational experiences or failures.
21. The teacher lacks skill in educational planning.
22. The teacher has not acquired sufficient knowledge related to this student’s problems or diagnosis (i.e., diagnosis specific information).
23. There is not proper consultation with appropriate resources (e.g., psychologist, psychiatrist, social worker, etc.).
24. There is concern the student will not receive necessary help if he or she makes progress (e.g., declassification from special education).
26. The teacher does not consistently use the consultation provided.
27. There is a high frequency of absenteeism from school.
29. The student has limited cognitive ability.
34. The student does not have a strong connection or relationship with an adult.
35. Unrealistic expectations are made for this student in his or her classroom.
36. The teacher possesses a limited understanding of the developmental process.
39. The present placement is not restrictive enough to produce appropriate change.
40. The educational goals are unrealistic for this student.
42. There is a lack of mental health or community resources available for this student.
43. The school system does not have the financial resources to address this student’s needs appropriately.
44. The school places unrealistic or conflicting demands on this student.
45. The student lacks the necessary academic skills to comply with educational expectations.
46. Special education laws limit the schools ability to provide appropriate interventions for the student (e.g., restriction on outside recommendations, etc.).
48. The student has limited energy (e.g., lethargic).
49. There are fragmented and/or uncoordinated services provided to this student.

50. The teacher lacks flexibility in educational planning for this student.

51. The family members or significant others deliberately interfere with the child’s education services.

52. There are significant medical or physiological problems.

53. The teacher, parents, and/or student lack agreement with goals.

56. The teacher expresses negative thoughts regarding this student.

58. The student lacks efficient memory skills to remember rules or routines within the classroom.

60. The teacher believes he or she is unable to help this student effectively.

61. Discipline at home is inconsistent.

63. The student uses alcohol or drugs.

64. The school/facility uses ineffective approaches to handling this student’s behavior (e.g., frequent out-of-school placements).

65. The class size is too large to provide an effective individualized educational program.

66. There are advantages to others for the student to remain disabled (e.g., SSI, insurance benefits, etc.).

68. The teacher does not implement a consistent intervention model.

69. The student expresses fear about changing his or her actions, thoughts, or feelings.

70. The teacher provides intervention at inappropriate times.

71. The teacher lacks the experience and/or skill to work with this student.

72. There is concern the child’s present diagnostic classification is incorrect.

73. The school system is unwilling to attempt new interventions to assist this student.

74. The school system has a limited support network for the teacher to seek assistance or consultation.

75. The student shows frustration with his or her lack of educational progress.

78. There are no specific behavioral goals for this student.
impeding change, such as limited family support system, lack of resources, negative family beliefs, environmental stressors, sociocultural variables, and poor home-school collaboration.

Cluster 3, called Systemic/Educational Impediments, contained 48 items. The items in this cluster primarily consisted of school and teacher factors, including teacher beliefs, poor educational planning, lack of teacher skill, limited school resources, and fragmented services. However, this cluster also included several student and family items that could affect educational programming, such as student thoughts about past educational experiences, limited student cognitive abilities and academic skills, family interference with educational services, and poor home-school collaboration. A few variables did not, however, have a notable content relationship with the other items (e.g., significant medical problems, student uses drugs and alcohol, inconsistent discipline at home).

Factor analysis of clusters. A total raw score was calculated for each of the obtained clusters and then the clusters scores were factor analyzed using a higher order factor analysis. A principal component, varimax rotated factor analysis using a criterion of eigenvalues greater than 1, extracted one factor accounting for 67.6 percent of the variance. This factor, called Impediments to Change, includes all clusters previously identified. Therefore, it appears that a combination of student impediments, family impediments, and systemic/educational impediments result in one overall measure of impediments to change. (See Table 6)
Table 6

*Impediments to Change Scale Clusters Factor Loading of Principal Components*

*Varimax Rotated Analysis*

**Factor 1 (Alpha = .68)**

<table>
<thead>
<tr>
<th>Cluster Number and Name</th>
<th>Factor Loading</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cluster 1: Student Impediments</td>
<td>.884</td>
</tr>
<tr>
<td>Cluster 2: Family Impediments</td>
<td>.715</td>
</tr>
<tr>
<td>Cluster 3: Systemic Educational Impediments</td>
<td>.856</td>
</tr>
</tbody>
</table>

*Normative analysis.* The mean total raw score on the *Impediments to Change Scale* was 80.87 (SD = 45.01) and the median was 74.00. For the Student Impediments Cluster (Cluster 1), the mean raw score was 28.12 (SD = 13.30). The mode was 22 and the median was 27. For the Family Impediments Cluster (Cluster 2), the mean raw score was 22.90 (SD = 12.80), the mode was 12 and the median was 23. For the Systemic/Educational Cluster (Cluster 3), the mean raw score was 29.78 (SD = 27.85), the mode was 15 and the median was 19.

*Internal consistency.* In order to assess the internal consistency of the *Impediments to Change Scale: Educational Version* total score, as well as for each of the clusters, Cronbach’s coefficient alpha reliability was calculated. Coefficient alpha for the entire scale was .96. The respective reliability coefficient
alpha values for each cluster were as follows: Cluster 1 = .91, Cluster 2 = .92, and Cluster 3 = .97).

Additionally, items on each cluster were correlated with the total score of its given cluster. For Cluster 1, the correlations were all significant and positive ranging from .42 to .80 (p < .01). The correlations for Cluster 2 were all significant and positive ranging from .58 to .80 (p < .01). For Cluster 3, all but two items correlated with the total scores. Those items that correlated with the Cluster 3 total were positive and they ranged from .35 to .87 (p < .01). The two items that did not correlate were items that did not fit the cluster content of systemic education impediments (e.g., medical problems and inconsistent home discipline). The correlations for each cluster are represented in Table 7.

**Correlation of cluster scores.** The total cluster scores of each of the *Impediments to Change Scale: Educational Version* clusters were correlated. Furthermore, the cluster scores were each correlated with the total raw score obtained on the scale. The intercorrelation matrix is shown in Table 8. The correlations ranged from a low of .388 to a high of .926. All of the Pearson product-moment coefficients were positive and significant at the p < .01 level of significance (one-tailed).

**Inter-rater reliability.** Inter-rater reliability was calculated by correlating the total score of the *Impediments to Change Scale: Education Version* completed by the school psychologists with the total score on the scale completed by the
### Table 7

**Item Score and Total Cluster Score Correlations**

**Three Clusters of the Impediments to Change Scale: Educational Version**

<table>
<thead>
<tr>
<th>Cluster 1</th>
<th>Cluster 2</th>
<th>Cluster 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Item</td>
<td>r</td>
<td>Item</td>
</tr>
<tr>
<td>1</td>
<td>.729**</td>
<td>3</td>
</tr>
<tr>
<td>2</td>
<td>.465**</td>
<td>9</td>
</tr>
<tr>
<td>6</td>
<td>.419**</td>
<td>10</td>
</tr>
<tr>
<td>8</td>
<td>.659**</td>
<td>12</td>
</tr>
<tr>
<td>19</td>
<td>.670**</td>
<td>14</td>
</tr>
<tr>
<td>25</td>
<td>.656**</td>
<td>16</td>
</tr>
<tr>
<td>31</td>
<td>.671**</td>
<td>17</td>
</tr>
<tr>
<td>37</td>
<td>.604**</td>
<td>28</td>
</tr>
<tr>
<td>38</td>
<td>.682**</td>
<td>30</td>
</tr>
<tr>
<td>41</td>
<td>.603**</td>
<td>32</td>
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<td>47</td>
<td>.804**</td>
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<td>39</td>
<td>.675**</td>
<td>66</td>
</tr>
<tr>
<td>40</td>
<td>.820**</td>
<td>68</td>
</tr>
</tbody>
</table>

**Note:** ** Significant at the p<.01 level (one-tailed)
Table 8

_Intercorrelations of Clusters on the Impediments to Change Scale: Educational Version_

_Three Clusters and the Total Score_

<table>
<thead>
<tr>
<th></th>
<th>Cluster 1</th>
<th>Cluster 2</th>
<th>Cluster 3</th>
<th>Total Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cluster 1</td>
<td>--</td>
<td>.455**</td>
<td>.680**</td>
<td>.845**</td>
</tr>
<tr>
<td>Cluster 2</td>
<td>--</td>
<td>--</td>
<td>.388**</td>
<td>.644**</td>
</tr>
<tr>
<td>Cluster 3</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>.926**</td>
</tr>
<tr>
<td>Total Score</td>
<td>--</td>
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</tr>
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</table>

Note: ** Significant at p<.01 level (one-tailed)

instructional advisors for 25 randomly selected students. The inter-rater reliability coefficient for the _Impediments to Change Scale: Educational Version_ was .375. This correlation is significant at the p < .01 level. Despite the inter-rater reliability being statistically significant, a reliability coefficient of .375 is not necessary clinically significant. Sattler (1988) suggested that a reliability coefficient of .80 or greater is necessary for general acceptability for individual assessment tools.

_Correlation of total score with teacher ratings._ The _Impediments to Change Scale: Educational Version_ total raw score was correlated with teacher ratings of students using a Likert Scale. The teacher rated three areas including academic achievement this year (1 = Far Below Average to 5 = Far Above Average), frequency of disruptive behaviors (1 = Far Below Average to 5 = Far
Above Average), and amount of positive behavioral change (1 = No Change to 5 = Significant Change). The Pearson product-moment coefficient between positive behavioral change and total score was -.195, which demonstrated a negative and significant correlation at the p < .05 level (one-tailed). This suggests a modest relationship between total score and teacher perception of behavioral change. The correlation between academic achievement level and total score was insignificant. The teachers’ rating of the frequency of students disruptive behavior showed a positive and significant correlation with the scales total raw score (r = .215, p < .05, one-tailed).

Qualitative Findings

As noted previously, of the 58 teachers who participated in this investigation, only 22 were able to obtain parental consent for students from their classes. In addition to the consents received, the responsible investigator received notes and/or telephone calls from 28 other parents (3.98 percent) regarding their reasons for not participating in the study, which serves as supplemental data for this study. Of the 28, five parents indicated that they could not participate because of family circumstances that would not allow participation (e.g., joint custody issues). Additionally, two parents reported that they were not aware that their children were receiving Emotional Support services, and they believed their students were in a classroom for academic difficulties only. The remaining 21 parents all noted similar concerns with participating in the study.
The underlying theme of many of these notes and conversations was a lack of communication between parents and teachers, a distrust of the school and teacher, or a lack of parent satisfaction with educational services. Several example responses are listed in Table 9. These examples highlight the frustration many parents are experiencing with educational services.
Table 9

Qualitative Responses from Parents not Participating

“The teacher just antagonizes my child. I can’t be apart of this project „cause I’m concerned that if I say anything they [the school] will take it out on [child’s name].”

“[Teacher’s name] only calls me because my son did something wrong. This class [ES class] has not helped at all. He is in a smaller room, but with a teacher who doesn’t understand what to do.”

“Observe the teachers classrooms using a hidden camera. You will find out many unsatisfactory surprises.”

“Ask the kids what goes on in these classes. That’s a real study. My son will give you incidents of immaturity on the teacher’s part and the use of incorrect punishment. It will shock and amaze you.”

“The real problems are with new teachers every year and getting them to understand how to best deal with my child.”

“Offer the services to the teachers. Educate them and make it mandatory, then you will see the progress with the child.”
Chapter 4

Discussion

While change is a natural occurrence that everyone experiences at some time in life, the process of change is challenging. Many factors can potentially impede or hinder progress toward a desired goal to change unwanted behaviors. Students identified as having ED are one group for whom change is difficult. These children face many school, home, and social challenges, and their educational outcomes are discouraging (U.S. Department of Education, 2001). Children classified as ED often receive services that are more restrictive and that are outside of the general education setting. In fact, for as many as 18 percent of these students, their educational program is provided outside of the public school environment in places such as partial hospitalization programs, alternative schools, and residential facilities (U.S. Department of Education, 2001). Kauffman (2001, as cited in U.S. Department of Education, 2001) reported that children with ED commonly experience academic and school failure. Long-term outcomes such as high school completion (U.S. Department of Education, 2001; Walker et al., 1995), employment stability (Blackorby & Wagner, 1996), and arrest rates (Jay & Padilla, 1987) are disconcerting for children and adolescent with emotional and behavioral difficulties.

Despite the research that exists on risk factors for children with ED (Epstein & Cullinan, 1994; Singh & Landrum, 1994), there is far less available data on how these factors impede a student’s progress. At the present time, the focus in education is on the use of functional behavioral assessments
Impediments to Change Scale

(Hendrickson et al., 1999; Lane et al., 1999; Heckman et al., 2000) and positive behavioral support plans (U.S. Department of Education, 2001) in the treatment for youth with ED. These interventions have demonstrated effectiveness in the management and prevention of serious behavioral difficulties (Lane et al., 1999; Sugai et al., 2002). However, the information on the long-term outcomes of these school-based strategies has only recently begun to emerge (Hendrickson et al., 1999; Blakeslee et al., 1994). Given the multidimensional presentation of the children with ED, there is a need for research to examine the “change processes” and the factors that hinder or impede the student from establishing and maintaining positive change.

A number of researchers have explored change processes with other groups including smokers (DiClemente, Prochaska, et al., 1991), dieters (Greene et al., 1993; O’Connell & Velicer, 1988), substance abusers (Prochaska et al., 1992), and diabetics (Ruggiero & Prochaska, 1993). Additionally, recent research on change processes in psychotherapy with children has shown promising results (Shirk & Russell, 1996). Another line of investigation has been the work of Kazdin and colleagues, whose studies examined barriers affecting outpatient therapy treatment outcomes, participation, and change (Kazdin, Holland, Crowley, & Breton, 1997; Kazdin & Mazurick, 1994; Kazdin & Wassell, 1999; Kazdin, 1995). Despite the growing work with the aforementioned groups, no current research exists investigating the change process or the construct of “impediments to change” with children and adolescents identified as having ED.
The responsible investigator of this study worked as a school psychologist for several years with children and adolescents identified as having ED. Through personal experience, as well as that of colleagues, it was determined that increasing the understanding of change and the impediments confronting particular students would allow for better conceptualization of the student and his or her needs. It became evident that having a valid and reliable instrument to aid in measuring variables impeding progress and change in students with ED would have clinical utility. With education moving toward evidence-based practices with all students, consulting psychologists, psychiatrists, and school-based intervention teams will need an efficient way to identify and understand salient aspects promoting or impeding the change process with students in order to guide the selection of appropriate interventions. Expanding upon, and extrapolating from, the literature regarding treatment resistance and barriers to psychotherapy, the Impediments to Change Scale: Educational Version was specifically designed to be face valid and to address a multitude of factors affecting change.

The present investigation is the initial stage in the development and validation of the Impediments to Change Scale: Educational Version. In this study, four hypothetical statements were made: (1) that impediments affecting change in children with ED could be quantified and measured; (2) that impediments to change would cluster into different factors, including student impediments, teacher impediments, family impediments, and systemic impediments; (3) that the scale would demonstrate inter-rater reliability between
consulting school psychologists and instructional advisors; and (4) that higher total scores on the scale would have lower rates of change as rated by classroom teachers. Overall, the findings of this study suggest that the Impediments to Change Scale: Educational Version has promise in the measurement of factors that hinder or impede a student’s progress. However, there are a number of limitations to this study that must be considered. This scale represents a new and potentially valuable tool for clinicians, in that it offers a method for considering the multidimensionality of students with ED and it goes beyond looking only at student issues as the reason for poor progress. In that way, it may easily serve the purpose of being clinical screening tool to assist in identifying variables related to impeded progress. The Impediments to Change Scale: Educational Version may additionally have important implications in designing educational goals to facilitate change in students with ED, pending future research.

**Hypothesis 1**

The first hypothesis for this study was that impediments affecting change in children with ED could be quantified and measured by means of a properly constructed rating scale, namely the Impediment to Change Scale: Educational Version. Although “impediments to change” is not a construct previously identified in research, many researchers have assessed factors that serve as barrier to treatment outcomes, adherence, and participation (as reviewed above).
This study supported that the items on the *Impediments to Change Scale: Educational Version* measures the common underlying construct of “impediments to change.” In the context of psychological assessment, the extent to which a measure has been shown to assess the construct of interest, in this case impediments to change, is referred to as construct validity (Messick, 1995; Sattler, 1988). To determine construct validity for this scale, two areas were reviewed.

First, this was determined through assessing the internal consistency of the scale. Cronbach’s alpha coefficient correlations were conducted to determine the homogeneity of the *Impediments to Change Scale: Educational Version* and each of its clusters. According to Anastasi (1988), the more homogeneous a test and the higher the inter-item consistency, the less likely it is influenced by error variance. Coefficient alpha for the entire scale was .96. The respective coefficient alpha values for the cluster scores were as follows: Cluster 1 = .91, Cluster 2 = .92, and Cluster 3 = .96. These high coefficient scores show that the *Impediments to Change Scale: Educational Version* and its cluster scores provide a strong, reliable measure of the impediments to change construct. Additionally, the clusters also appear to provide a consistent measure of specific areas of impediments to change.

Anastasi (1988) further suggests that the construct an instrument claims to measure can be further validated by correlating subtest (in this case cluster scores) with the overall total score. Pearson product-moment correlation revealed positive and significant results for all cluster scores at the .01 level of
significance (see Table 8). These correlations suggest that items on all three clusters are measuring a similar construct – impediments to change.

Finally, individual scores were calculated for each of the three clusters identified by the hierarchical cluster analysis (see specific clusters below) and a higher order factor analysis was conducted to further investigate the cluster groupings. The factors analysis found that the three cluster scores grouped together into one overall factor accounting for 67.6 percent of the variance. See Table 6 for factor loadings. This finding revealed that student impediments, family impediments, and systemic/educational impediments could be combined to assess the concept of impediments to change.

The design of the Impediments to Change Scale: Educational Version, along with the internal consistency, the factor analysis of the identified clusters, and the item correlations, provided support that the impediments to change construct can be measured. Additionally, these results supported the Impediments to Change Scale: Educational Version as a potential tool to assess this construct, pending further research.

Hypothesis 2

As stated earlier, one of the primary goals of this study was to conduct an exploratory factor analysis on the Impediments to Change Scale: Educational Version to identify factors that impede or hinder progress. However, because of difficulty obtaining the needed 390 subjects (five subjects per variable), the use
of factor analysis with the overall scale would not have been a reliable procedure (Gorsuch, 1983). Instead, a hierarchical cluster analysis was conducted to examine the proximity relationships between the items and to place them into common groupings (Ward, 1963). While this was not the optimal means to identify homogeneity between items in test construction, hierarchical cluster analysis has been found to be a useful procedure in grouping items and in interpreting multidimensional scaling results (Arabie, Carroll, and DeSarbo, 1987).

It was hypothesized that the items on the Impediments to Change Scale: Educational Version would group into four factors: (1) student impediments, (2) family impediments, (3) systemic impediments, and (4) teacher impediments; however, the findings of this study revealed that the items grouped into only three distinct clusters. Two of the clusters predicted – student impediments and family impediments – did emerge from the cluster analysis. However, the predicted systemic and teacher impediments collapsed into one cluster, now termed Systemic/Educational Impediments.

The obtained clusters suggest that there are three underlying dimensions of impediments to change – namely, student, family, and systemic/educational impediments. The clusters can be either separated to measure a specific area or they can remain grouped to assess the global construct of impediments to change, as described above. Students differing on the three specific clusters may then be expected to display different underlying reasons for their lack of progress, while the overall score is indicative of the cumulative impact of the
clusters combined. The current results, in conjunction with future research in this area, may eventually allow for the development of an “impediments to change profile” for a given student to facilitate the identification of critical targets of intervention. Given the multitude of factors placing students at risk for ED (Epstein & Cullinan, 1994; Singh & Landrum, 1994), having an instrument to help identify specific components impeding change could be promising in targeting areas in need of intervention.

**Student impediments.** Based on literature, student impediments were a hypothesized cluster, and this study supported that student items grouped together (Cluster 1). Students scoring high on Cluster 1, for example, appear to lack change because of personal difficulties such as impulsiveness, negative attitude, maladaptive beliefs, lack of motivation to change, and poor problem-solving skills. As reported in the cognitive-behavior therapy (CBT) literature, factors such as cognitive distortions and deficiencies have an impact on an individual’s feeling and behaviors (Freeman et al., 1990, in press; Kendall, 1991, 1993). Students having negative or distorted thoughts may view themselves as less self-efficacious or less able to help themselves. The impact of negative beliefs about themselves and others can serve as an impediment to change for children with ED. Additionally, deficiencies in problem solving (Spivack et al., 1976) and social skills (Greenberg, Domitrovich, & Bumbarger, 2001) are factors that must be addressed with these students. These factors, if improved, can serve as a protective mechanism (Rutter, 1985). Research by
Valance and associates (1998) demonstrated the link between increased educational progress and social competencies. Finally, student factors, such as a lack of motivation to change must be addressed by school-based clinicians. This will require meeting students at their current stage of change (Freeman & Dolan, 2001; Prochaska et al., 1992), and then providing interventions at the level necessary to motivate students beyond this level (Miller & Rollnick, 2002). No studies currently exist that specifically assesses stages of change and the effect of matching interventions to students with ED.

**Family impediments.** This investigation further demonstrated that family variables clustered together (Cluster 2) as an area impeding change in students with ED. High scorers on Cluster 2 (Family Impediments) have a greater impact from family variables, thus resulting in the student lacking progress. Family impediments can include a limited support network, limited resources, and a lack of understanding of the educational process. These factors are consistent with research by Kazdin and colleagues suggesting that contextual variables serve as a barrier to treatment participation and outcome (Kazdin, Holland, Crowley, & Breton, 1997; Kazdin & Mazurick, 1994; Kazdin & Wassell, 1999; Kazdin, 1995). These variables require school personnel to provide outreach to families to help minimize the influence on student progress. Additional issues related to the family impediments include environmental stressors, family beliefs, and ineffective behavior management. Each of these contributes to parental stress, which has been shown to be a significant risk factor for children (Kazdin &
Impediments to Change Scale

Whitley, 2003; Anastopoulos et al., 1992; Baker & McCal, 1995). Research has demonstrated that interventions targeting parental stress, such as parent problem-solving training, can positively influence a child’s progress in treatment (Kazdin & Whitley, 2003). Thus, when working with children with ED, providing services to families such as parent support groups and parent management training may serve to accelerate a student’s progress.

Systemic/educational impediments. It was assumed that teacher and systemic variables would cluster as two distinct components of impediments to change. However, the present examination found that teacher and systemic issues collapsed into one cluster termed systemic/educational impediments (Cluster 3). Those who score high on Cluster 3 seem to be affected by systemic issues or those related to the educational process, such as teacher factors or academic problems. Systemic factors, such as lack of consultation, incorrect educational placement, lack of school resources, and fragmented services, contribute to poor student progress. To address systemic issues, schools may need to explore school-wide options such as school-based mental health programs (Weist, 1999) and school-wide behavioral support (Sugai et al., 2002). Research has demonstrated the effectiveness of school-wide approaches in the prevention and intervention of problem behaviors, as well as on the improvement of school climate and the reduction of minor problems from becoming more serious (Walker & Shinn, 2002). Research has shown that only one in five children needing mental health services receive such interventions (U. S.
Department of Health and Human Services, 1999). The descriptive data from this study showed that only 52.7 percent of the students with ED in this sample received counseling services outside of the school. Consistent with the information gathered by the U.S. Department of Education (2001), children in this study received services in more restrictive environments, such as full-time (30.8 percent) and part-time (59.8 percent) ES programs rather than inclusive settings. Therefore, systemic efforts are necessary to provide opportunities for students to receive alternative services aimed at increasing skill levels and preparing students to receive services in less restrictive settings.

Furthermore, under this cluster are teacher specific issues, such as poor working relationships, a lack of educational planning, insufficient knowledge of the student problems, lack of collaboration with parents, and beliefs that he or she cannot help the student. The lack of appropriate training and credentialing for teachers working in special education, particularly emotional support programs, is a serious issue contributing to teacher effectiveness. In this study, the majority of teachers (69 percent) have been teaching for less than 10 years. This imbalance of less experienced teachers working with children with ED is consistent with reviewed literature (Sawka et al., 2002). Of further concern is the finding that only 56.9 percent of the teachers held appropriate credentials to teach special education. This lack of training and credentialing is also consistent with literature suggesting inadequate preparation of teachers serving special education populations such as those with ED (Haselkom & Calkins, 1993). It
appears that students in most need are receiving services from teachers with fewer qualifications.

As for teacher beliefs and intervention implementation, studies have found that teachers working with children displaying behavior problems are more likely to maintain treatment integrity following consultation using a directive approach (Sterling-Terner et al., 2002). A direct consultative approach not only increases treatment integrity, but also may improve the teacher’s beliefs that he or she can help a particular student. Georgiou and associates (2002) indicated that teacher behaviors are based on their perception of student problems. Teachers who believe they have the skills to help a child are more likely to persist in applying various interventions.

Several of the student items also loaded on Cluster 3 including negative thoughts about past educational experience, high frequency of absenteeism, lack of memory skills, educational frustration, and lack of academic skills or cognitive abilities. Each of these areas highlights the connection between academic and behavioral functioning. Epstein and Cullinan (1994) report that as many as 39 percent of the children with ED have coexisting learning disabilities or problems. Of the students in the current study, approximately 21 percent had a secondary educational classification for a learning disability. Additionally, teachers rated nearly 32 percent of the students as making below average academic progress. Literature has demonstrated the reciprocal relationship that exists between academic and social difficulties (Barriga et al., 2002; Maguin & Loeber, 1996). Maguin and Loeber (1996) further found that improving academic skills also
reduced the prevalence of delinquent behaviors. This research highlights the importance of schools establishing high academic standards for all students, but also in providing evidence-based academic interventions, as well as behavioral strategies for students with ED.

The final area of importance under the systemic/educational cluster is an area that was not directly assessed in this study; that is, home-school collaboration. Specifically under the systemic/educational cluster were items suggesting family interference with educational services and a lack of agreement on goals between parents and teachers. However, beyond the cluster analysis, the qualitative findings offered relevant insight to factors rupturing parent-teacher collaboration. Many parents declining to participate in this study reported notable concerns with teachers and schools. The comments made by the parents when contacting the responsible investigator provide further insight into their perceptions (see Table 9 for a sample of quotes). The comments by parents in this study are consistent with those found by other researchers. Comer (1991) indicated that parents perceive school staff as “distant, rejecting, and sometimes even hostile toward them or their children” (p. 184). Additionally, this was noted as a reason why parents were not involved in their children’s education (Comer, 1991). Literature has supported that home-school relationships affect student motivation, behavioral progress, and academic success (Epstein, 1991; Johnson & Walker, 1991). However, because many of the students whose parents expressed frustration with home-school issues declined to participate, the study was unable to obtain a true picture of this factor. It is necessary for future
research to investigate the role of home-school collaboration, or the lack thereof, as an impediment to change. Additionally, with a larger sample, it may be interesting to identify if home-school collaboration loads as a family, teacher, or school variable or as its own distinct factor.

**Hypothesis 3**

The third hypothesis for this study assumed that scores on the *Impediments to Change Scale: Educational Version*, as rated by school psychologists and instructional advisors, would yield similar results. This refers to the scales inter-rater reliability, which is a measurement of an instrument’s stability between two different raters. To accomplish this, the consulting school psychologists and instructional advisors completed the *Impediments to Change Scale: Educational Version* on 25 randomly selected students. A Pearson’s product-moment correlation was .375, which is positive and significant at the .05 level (one-tailed). While this score is statistically significant, in test construction, it is preferable to have reliability coefficients at or greater than .80 (Sattler, 1988).

Despite the modest inter-rater reliability between school psychologists and instructional advisors, there is some consistency between the ratings. Further research is needed, however, to establish stronger inter-rater consistency on this scale. There are several possible explanations for the variance between scores. The training and professional experience between school psychologists and instructional advisors differ, which may have resulted in them interpreting certain
items differently. In addition, by nature the role of school psychologists and instructional advisors vary, which may alter the knowledge each possesses about the student. Different training orientations may have further influenced how each rater appraised a student. For instance, professionals working from a family-systems orientation may have more readily endorsed family factors, whereas those using a behavioral framework may have focused on items addressing systemic or classroom issues. Further studies will be needed in this area. It may be advantageous to conduct inter-rater reliability studies with professionals having similar backgrounds or to obtain the professionals theoretical orientation to determine if differences exist. The small sample size may have also contributed to the lower levels of inter-rater reliability. For this study, the inter-rater reliability sample consisted of only five psychologist and five instructional advisors. With such a small number of raters, issues such as personality differences could have affected the results. The inter-rater reliability found in this study should be used with caution until additional research is conducted.

Hypothesis 4

It was proposed that there would be a positive relationship between the total score on the *Impediments to Change Scale: Educational Version* and the frequency of student disruptive behaviors. Additionally, a negative relationship was assumed between the total scale score and student levels of academic achievement and behavioral change. Teacher ratings (using a Likert scale) of
academic achievement, frequency of disruptive behaviors, and amount of behavioral change were used to compare to the total raw score on the *Impediments to Change Scale: Educational Version*. This is a method of assessing the scale’s criterion validity, which measures if a test is valid when compared with some other criterion or outcome (Messick, 1995; Sattler, 1988). Thus, we would assume that higher total raw scores on the *Impediments to Change Scale: Educational Version* would demonstrate higher levels of disruptive behaviors and lower levels of academic achievement and behavioral change.

Pearson product-moment correlation was performed between the aforementioned variables. There was a positive and significant relationship between the total raw score on the *Impediments to Change Scale: Educational Version* and frequency of disruptive behaviors (r = .215, p < .05, one-tailed). This suggests that students with higher scores on this scale exhibit more frequent disruptive behaviors in the classroom. However, while statistically significant, these results are a modest correlation. Additionally, a negative and significant correlation existed between teacher ratings of the amount of behavioral change and the total raw score on the *Impediments to Change Scale: Educational Version* (r = -.195, p < .05, one-tailed). This indicated that the students with a higher raw score on this scale were perceived by their teachers as making less behavioral change. While statistically significant, this finding is fairly small for clinical utility. The relationship between the total raw score and academic achievement during this investigation was not significant.
These correlations demonstrate that higher score on the *Impediments to Change Scale: Educational Version* have some relationship, while modest, to teacher perception of frequency of disruptive behaviors and amount of behavioral change that occurred for given students. One possible reason for lower correlations is that the use of teacher ratings on a Likert scale is subjective, and response bias may account for the rating by the teachers (Dawis, 1987). That is, teachers may have responded either more stringently or more leniently in their estimate of the students’ change and disruptive behaviors than actually existed. Sattler (1988) suggests that when assessing criterion validity, researchers should use measures that are adequate in psychometric properties, such as being readily measurable, free from bias, and relevant to the purpose of the test. Further research between the *Impediments to Change Scale: Educational Version* and other objective, psychometrically sound measures will be necessary to substantiate the findings from this investigation.

**Limitations**

There are a number of limitations within the design and measurement of this study that may have compromised its findings.

Several limitations relate to the degree of confidence with which the results of this study can be interpreted. Because of the lack of documented measures assessing impediments to change, this study relied on teacher ratings of change using a Likert-type scale. While it appears that this study serves as a
foundation assessing impediments to student change, it is difficult to determine with certainty that the concept of “impediments to change” is accurately assessed. Using a Likert scale to rate change and performance is subjective and there is potential for response bias. For instance, a teacher may have rated a student based on other factors (e.g., liking the student, situational bias, etc.) rather than on how much change the student actually made. Although assessing “change” is difficult, future studies may consider using other more objective means such as number of office referrals, days of detention, as well as already established objective behavioral rating scales (e.g., Child Behavior Checklist).

Another weakness of this study was subject selection. Of particular concern is selection bias (Blanck, Bellack, Rosnow, Rotheram-Borus, & Schooler, 1992). Selection bias occurred on two levels in this study – with teachers and with students. While 58 teachers agreed to assist in obtaining participation from students in their classrooms, only 22 teachers were able to gain consent. Based on the qualitative findings, it is likely that the teachers obtaining consent from parents have stronger relationships with students and families, and they may engage less in negative beliefs and behaviors that are thought to represent factors that impede student progress. Conversely, students in classes with teachers whose skills in the aforementioned areas are not as well developed were possibly those who declined to participate.

In addition, student participation in this study is also of concern. Because of the lower number of subjects and the voluntary participation, there is a chance that those students experiencing the most serious difficulties, poorer
relationships with teachers, or extremes of other variables were not included in this study. These factors may have inflated the rating of perceived change. Additionally, the qualitative findings suggest that this study did not include those students for whom parent-teacher and student-teacher relationships may have served as an impediment to change.

These reported selection biases may have skewed the results of the research findings, in that they may have restricted the range of variability of students. This may explain, at least in part, the minimal relationships found between teacher-perceived behavioral change and the total score on the Impediments to Change Scale: Educational Version. Future studies will need creative ways of obtaining consent from parents, instead of relying on teachers, as teacher issues were one of the reasons parents declined to partake in the study. Using other staff members, such as the school psychologist or school counselor, may serve as a more effective means of obtaining consent. Moreover, it may be beneficial to discuss the study and solicit consent during personal contacts with parents such as at parent-teacher meetings, child study team meetings, or annual IEP meetings.

The lack of subject participation also served as a limit to this study. While the goal of this study was to obtain consent from 390 subjects, only 91 participated. This lower number of subjects affects the study in several ways. The lower number of subjects required a change in statistical analysis from an exploratory factor analysis to a hierarchical cluster analysis. The latter procedure, while useful, has less statistical power and is used less frequently in test
construction. Further analysis of the *Impediments to Change Scale: Educational Version* is necessary using a larger sample in order to conduct an exploratory factor analysis at the item level.

The smaller sample size also had impact on the representativeness of the sample. Specifically, the entire sample was Caucasian and predominantly from rural and suburban settings. The extent to which these results can be applied to youth with ED from other ethnic and geographical backgrounds is limited. Repeating this study with a larger, more diverse sample of students with ED and with students from a larger variety of programs (e.g., residential, partial, etc.) may produce more significant findings and identify a larger number of factors than determined here.

**Conclusions and Future Directions**

The guiding principle for this study was the importance of assessing a multitude of factors affecting and impeding change in children with ED. As such, this study was the first step in the development and validation of the *Impediments to Change Scale: Educational Version*. The current findings show promise for the assessment of “impediments to change.” There are distinct areas impeding change which emerged from this study; namely, student impediments, family impediments, and systemic/educational impediments. It is hoped that the *Impediments to Change Scale: Educational Version* will prove to be a practical and useful tool for school-based clinicians working with children and adolescents
with ED. However, the limitations of the present study, such as sample size, variables measured, and choice of criterion measurements, restrict the general use of these findings. This study should be replicated in the future with a larger sample, and consideration should be given to an alternate criterion in which to compare the *Impediments to Change Scale: Educational Version*. Replicating this study and finding additional significant results with a larger, more representative sample of students with ED is necessary for improving the interventions for these students.

Results not anticipated, but worth noting, are the qualitative findings suggesting the frustration of parents with teachers and schools. This finding affected this study by means of restricting the sample size; however, it highlights the need for research that is more extensive regarding home-school collaborations and parent-teacher relationships of students with ED.

Despite the *Impediments to Change Scale: Educational Version* not having enough evidence currently to be used as a stand-alone instrument, school-based clinicians should begin addressing various impediments to change when planning interventions for students with ED. Should future research improve upon the current study, then *Impediments to Change Scale: Educational Version* may be used beyond its current qualitative clinical utility.


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Impediments to Change Scale

of School Psychologists.


Appendix A

**Impediments to Change Scale: Educational Version**
Ray W. Christner, M.S., NCSP and Arthur Freeman, Ed.D., ABPP

**Instructions:** For EACH of the following items, identify the degree to which each impediment contributes to the problems or difficulties encountered by this student. Impediment is defined as "an obstacle that negatively interferes with progress or change." Use the following scale for your responses:

- 0 = No Impediment
- 1 = Mild Impediment
- 2 = Moderate Impediment
- 3 = Strong Impediment
- 4 = Major Impediment

1. The student lacks the necessary executive functions (e.g., planning, behavioral inhibition, etc.) to comply with the educational routine and expectations. 0 1 2 3 4
2. The student responds to peer-pressure. 0 1 2 3 4
3. The family has a limited support network. 0 1 2 3 4
4. The family places unrealistic or conflicting demands on the student. 0 1 2 3 4
5. The teacher believes his or her way of handling the student is “the only way.” 0 1 2 3 4
6. The student is overly dependent on others. 0 1 2 3 4
7. The teacher has not established a working relationship with the student. 0 1 2 3 4
8. The student’s rigidity prevents compliance with educational and behavioral goals at school (e.g. cannot change routines). 0 1 2 3 4
9. The family does not have confidence in their abilities to change this child’s behavior. 0 1 2 3 4
10. The student lacks confidence in his or her skills to change (self-efficacy). 0 1 2 3 4
11. The school does not have the resources available to help this student (e.g., mental health services, counseling, etc.). 0 1 2 3 4
12. The family possesses limited financial resources to obtain outside help. 0 1 2 3 4
13. The environment is unsafe, requiring the student to “stay tough.” 0 1 2 3 4
14. There are environmental stressors (e.g., family discord, divorce, etc.). 0 1 2 3 4
15. The educational goals are unclear. 0 1 2 3 4
16. Mental health issues within the family affect this student. 0 1 2 3 4
17. There are family beliefs about seeking help that interfere with progress. 0 1 2 3 4
18. Multiple behavioral symptoms result in an unclear starting point for treatment. 0 1 2 3 4
19. The student responds impulsively. 0 1 2 3 4
20. The student expresses negative thoughts about previous educational experiences or failures. 0 1 2 3 4
21. The teacher lacks skill in educational planning. 0 1 2 3 4
22. The teacher has not acquired sufficient knowledge related to this student’s problems or diagnosis (i.e., diagnosis specific information). 0 1 2 3 4
<table>
<thead>
<tr>
<th>Impediments to Change Scale</th>
<th>136</th>
</tr>
</thead>
<tbody>
<tr>
<td>23. There is not proper consultation with appropriate resources (e.g., psychologist, psychiatrist, social worker, etc.).</td>
<td>0 1 2 3 4</td>
</tr>
<tr>
<td>24. There is concern the student will not receive necessary help if he or she makes progress (e.g., declassification from special education).</td>
<td>0 1 2 3 4</td>
</tr>
<tr>
<td>25. The student does not display problem-solving skills.</td>
<td>0 1 2 3 4</td>
</tr>
<tr>
<td>26. The teacher does not consistently use the consultation provided.</td>
<td>0 1 2 3 4</td>
</tr>
<tr>
<td>27. There is a high frequency of absenteeism from school.</td>
<td>0 1 2 3 4</td>
</tr>
<tr>
<td>28. The family does not value or invest time in education.</td>
<td>0 1 2 3 4</td>
</tr>
<tr>
<td>29. The student has limited cognitive ability.</td>
<td>0 1 2 3 4</td>
</tr>
<tr>
<td>30. There are sociocultural variables that prevent the family from seeking assistance.</td>
<td>0 1 2 3 4</td>
</tr>
<tr>
<td>31. The student displays deficient personal resources (e.g., social skills, problem solving skills, etc.).</td>
<td>0 1 2 3 4</td>
</tr>
<tr>
<td>32. There is a family history of alcohol or drug use.</td>
<td>0 1 2 3 4</td>
</tr>
<tr>
<td>33. There is minimal collaboration between teacher and parents/caregivers.</td>
<td>0 1 2 3 4</td>
</tr>
<tr>
<td>34. The student does not have a strong connection or relationship with an adult.</td>
<td>0 1 2 3 4</td>
</tr>
<tr>
<td>35. Unrealistic expectations are made for this student in his or her classroom.</td>
<td>0 1 2 3 4</td>
</tr>
<tr>
<td>36. The teacher possesses a limited understanding of the developmental process.</td>
<td>0 1 2 3 4</td>
</tr>
<tr>
<td>37. The student experiences difficulty interpreting others’ behaviors (e.g., misreads nonverbal cues, etc.).</td>
<td>0 1 2 3 4</td>
</tr>
<tr>
<td>38. The student receives secondary gain from his or her negative actions (e.g., attention from others, escape from work, etc.).</td>
<td>0 1 2 3 4</td>
</tr>
<tr>
<td>39. The present placement is not restrictive enough to produce appropriate change.</td>
<td>0 1 2 3 4</td>
</tr>
<tr>
<td>40. The educational goals are unrealistic for this student.</td>
<td>0 1 2 3 4</td>
</tr>
<tr>
<td>41. The student presents a negative attitude regarding school/education.</td>
<td>0 1 2 3 4</td>
</tr>
<tr>
<td>42. There is a lack of mental health or community resources available for this student.</td>
<td>0 1 2 3 4</td>
</tr>
<tr>
<td>43. The school system does not have the financial resources to address this student’s needs appropriately.</td>
<td>0 1 2 3 4</td>
</tr>
<tr>
<td>44. The school places unrealistic or conflicting demands on this student.</td>
<td>0 1 2 3 4</td>
</tr>
<tr>
<td>45. The student lacks the necessary academic skills to comply with educational expectations.</td>
<td>0 1 2 3 4</td>
</tr>
<tr>
<td>46. Special education laws limit the school’s ability to provide appropriate interventions for the student (e.g., restriction on outside recommendations, etc.).</td>
<td>0 1 2 3 4</td>
</tr>
<tr>
<td>47. The student uses limited or poor self-monitoring skills.</td>
<td>0 1 2 3 4</td>
</tr>
<tr>
<td>48. The student has limited energy (e.g., lethargic).</td>
<td>0 1 2 3 4</td>
</tr>
<tr>
<td>49. There are fragmented and/or uncoordinated services provided to this student.</td>
<td>0 1 2 3 4</td>
</tr>
<tr>
<td>50. The teacher lacks flexibility in educational planning for this student.</td>
<td>0 1 2 3 4</td>
</tr>
</tbody>
</table>
51. The family members or significant others deliberately interfere with the child's education services.

52. There are significant medical or physiological problems.

53. The teacher, parents, and/or student lack agreement with goals.

54. The student lacks motivation necessary to change behaviors.

55. The student has difficulty establishing trust with others.

56. The teacher expresses negative thoughts regarding this student.

57. The family uses ineffective behavior management or discipline procedures at home.

58. The student lacks efficient memory skills to remember rules or routines within the classroom.

59. The student does not actively participate in school activities (i.e., clubs, sports, intramurals, etc.).

60. The teacher believes he or she is unable to help this student effectively.

61. Discipline at home is inconsistent.

62. The family has a limited understanding of the educational or treatment goals.

63. The student uses alcohol or drugs.

64. The school/facility uses ineffective approaches to handling this student's behavior (e.g., frequent out-of-school placements).

65. The class size is too large to provide an effective individualized educational program.

66. There are advantages to others for the student to remain disabled (e.g., SSI, insurance benefits, etc.).

67. The student does not believe a problem exists and/or he or she can handle the problems that arise.

68. The teacher does not implement a consistent intervention model.

69. The student expresses fear about changing his or her actions, thoughts, or feelings.

70. The teacher provides intervention at inappropriate times.

71. The teacher lacks the experience and/or skill to work with this student.

72. There is concern the child's present diagnostic classification is incorrect.

73. The school system is unwilling to attempt new interventions to assist this student.

74. The school system has a limited support network for the teacher to seek assistance or consultation.

75. The student shows frustration with his or her lack of educational progress.

76. The student is not ready to engage in behavioral or educational change.

77. The student does not comply with the educational rules and expectations.

78. There are no specific behavioral goals for this student.
Appendix B

CAREGIVER QUESTIONNAIRE

Child Identification #: __________________

1. Child’s gender?  □ MALE  □ FEMALE

2. Child’s age: __________ years

3. Child’s present grade: __________

4. Child’s ethnicity:
   □ White  □ Asian
   □ African American  □ Biracial
   □ Hispanic  □ Other: _____________________________

5. Highest educational level achieved by either parent/guardian:
   □ 8th grade or less
   □ Dropped out of high school
   □ GED
   □ High school graduate
   □ Trade school
   □ Some college
   □ College graduate
   □ Other: _____________________________

6. Annual household income:
   □ Less than $12,000
   □ $12,000 to $19,999
   □ $20,000 to $24,999
   □ $25,000 to $37,999
   □ $38,000 to $50,000
   □ More than $50,000

7. Has your child ever been placed in foster care? □ YES □ NO

8. Has either biological parent been diagnosed or treated for a mental health condition? □ YES □ NO □ DON’T KNOW

9. Please indicate any of the following that describe your child’s mental health diagnoses:
   □ Attention-Deficit/Hyperactivity Disorder  □ Anxiety Disorder
   □ Disruptive Behavior Disorder  □ Adjustment Disorder
   □ Mood Disorder (i.e., depression, bipolar)  □ Substance Use Disorder
   □ Psychotic Disorder  □ Autism/PDD
   □ Mental Retardation  □ Learning Disorder
   □ Personality Disorder  □ Post-Traumatic Stress Disorder
   □ Unknown  □ Other: _____________________________
10. Does your child currently receive counseling or therapy outside the school setting?
   - YES  - NO

11. Does your child take medication related to emotions or behavior?
   - YES  - NO

12. Has your child ever repeated a grade?
   - YES  - NO
   If yes, which grade(s)? ___________

13. Rate your child’s progress with school **behaviors** while receiving emotional support services this year:

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>No progress</td>
<td>Minimal progress</td>
<td>Some progress</td>
<td>Moderate progress</td>
<td>Significant progress</td>
</tr>
</tbody>
</table>

14. Rate your child’s progress in **academic areas** (e.g., reading, math, etc.) while receiving emotional support services this year:

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>No progress</td>
<td>Minimal progress</td>
<td>Some progress</td>
<td>Moderate progress</td>
<td>Significant progress</td>
</tr>
</tbody>
</table>
Appendix C

STUDENT QUESTIONNAIRE
Completed by Classroom Teacher

Student Identification #: ____________

1. Which of the following best describes the level of service this student receives?
   - Full time ES
   - ES Itinerant
   - Part-time ES
   - ES with full inclusion in regular education
   - ES Resource Room
   - ES with full inclusion
   - Other

2. Use the following scale to rate this student’s academic achievement this year:

   1. Far below Average
   2. Below Average
   3. Average
   4. Above Average
   5. Far Above Average

   Number: ________

3. Number of times this student has been suspended from school this year? _______

4. Use the following scale to rate the frequency of this student’s disruptive behaviors this year compared to peers:

   1. Far below Average
   2. Below Average
   3. Average
   4. Above Average
   5. Far Above Average

   Number: ________

5. Use the following scale to rate the amount of positive behavioral change you have seen in this student this year:

   1. No change
   2. Minimal Change
   3. Some Change
   4. Moderate Change
   5. Significant Change

   Number: ________

6. Does this student have a secondary classification in addition to Emotional Disturbance?
   - YES
   - NO
   If yes, please indicate below:
   - Learning Disability
   - Speech/Language Impairment
   - Mental Retardation
   - Visual Impairment
   - Physical Disability
   - Not sure
   - Hearing Impairment
   - Other Health Impairment
   - Autism/PDD
   - Multiple Disabilities
   - Developmental Delay
   - Other: ____________________________

7. How many days of school has this student missed, excluding suspensions?

   Number excused: ________
   Number unexcused: ________

8. What is the recommendation for this student for next school year?
   - Declassify from special education
   - Move to a Learning Support program
   - Less restrictive ES services
   - Continue with current level of ES services
   - Move to more restrictive ES services
   - Other: ____________________________
Appendix D

TEACHER QUESTIONNAIRE

Teacher Identification #: ______________

1. How many years have you been teaching?
   - 0 to 5 years
   - 6 to 10 years
   - 11 to 15 years
   - 16 to 20 years
   - 21 to 25 years
   - 26 + years

2. How many years have you taught Emotional Support?
   - 0 to 5 years
   - 6 to 10 years
   - 11 to 15 years
   - 16 to 20 years
   - 21 to 25 years
   - 26 + years

3. Which best describes the setting of your classroom?
   - ES classroom in a public school
   - ES classroom in an alternative setting
   - Alternative education placement
   - Partial hospitalization program
   - Residential treatment center
   - Other: _________________________

4. How many students are in your classroom?
   - Less than 5
   - 5 to 6
   - 7 to 8
   - 9 to 10
   - 11 to 12
   - More than 12

5. Check any of the following that are included in your classroom curriculum:
   - Health care
   - Relaxation
   - Impulse control
   - Communication skills
   - Other: _________________________

6. Check your highest degree achieved:
   - Bachelors Degree
   - Masters Degree
   - Doctoral Degree
   - Other: _________________________

7. Please check all of the areas of certification you have achieved:
   - Emergency Certification
   - Elementary Education
   - Secondary Education
   - Supervisor of Special Education
   - Administrators Certification
   - School Psychologist
   - Reading Specialist
   - School Counselor
   - Special Education
   - Other: _________________________
Appendix E
Appendix F
Appendix G
Appendix H

Study Summary for Students

You are being asked to be in a project that's going to look at what helps students do better in school. If you say yes, people working in your class and your parents (or guardians) will fill out forms about how you are doing. You do not have to provide any answers and you will not get a grade on this. It will not change your school day.

The person filling out the forms will be answering questions about what helps you in school and what causes you problems. You can stop being in this project at any time and no one will get mad at you. It will not hurt your grades if you do not want to be in the project.

Your name will not be used and the person filling out questions about you will not tell anyone who you are. If you have any questions, you can ask your parents, teacher, or the psychologist in your classroom.

Your parents (or guardians) will also give permission for your help with this project.
Appendix I

**DIRECTIONS FOR SCALE COMPLETION**

The *Impediments to Change Scale: Educational Version* should be completed by the school psychologist (and instructional advisor as requested) serving the Emotional Support classroom. The scale should take approximately 15 minutes to complete. When completing this scale, please consider the following instructions:

1. Complete the scale based on your knowledge of the student and family.

2. Do not refer to the child’s educational records for information and do not ask the student questions regarding any of the items.

3. You should complete the scale without consultation with other classroom staff or team members.

4. Circle the response that best fits your initial reaction. Do not “over think” your responses.

5. Please complete every item on the scale for each student you are rating.

6. When completed with the scale, place it in the accompanying envelope and seal.

7. Place all sealed envelopes completed in the self-addressed, postage paid envelope to:

   Ray W. Christner  
   Lincoln Intermediate Unit No. 12  
   PO Box 70  
   New Oxford, PA 17350