



2011

The Effectiveness of Isolation Timeouts for Students with Severe Emotional Disabilities Attending a Therapeutic Day School

Kathryn Thomas Ridgley Frampton
Loyola University Chicago

Follow this and additional works at: https://ecommons.luc.edu/luc_diss



Part of the [Psychology Commons](#)

Recommended Citation

Ridgley Frampton, Kathryn Thomas, "The Effectiveness of Isolation Timeouts for Students with Severe Emotional Disabilities Attending a Therapeutic Day School" (2011). *Dissertations*. 226.
https://ecommons.luc.edu/luc_diss/226

This Dissertation is brought to you for free and open access by the Theses and Dissertations at Loyola eCommons. It has been accepted for inclusion in Dissertations by an authorized administrator of Loyola eCommons. For more information, please contact ecommons@luc.edu.



This work is licensed under a [Creative Commons Attribution-NonCommercial-No Derivative Works 3.0 License](#).
Copyright © 2011 Kathryn Thomas Ridgley Frampton

LOYOLA UNIVERSITY CHICAGO

THE EFFECTIVENESS OF ISOLATION TIMEOUTS FOR STUDENTS WITH
SEVERE EMOTIONAL DISABILITIES ATTENDING A THERAPEUTIC DAY
SCHOOL

A DISSERTATION SUBMITTED TO
THE FACULTY OF THE GRADUATE SCHOOL
IN CANDIDACY FOR THE DEGREE OF
DOCTOR OF PHILOSOPHY
PROGRAM IN SCHOOL PSYCHOLOGY

BY

KATHRYN T. RIDGLEY

CHICAGO, IL

MAY 2011

Copyright by Kathryn T. Ridgley, 2011
All rights reserved

TABLE OF CONTENTS

LIST OF TABLES	v
CHAPTER I: STATEMENT OF THE PROBLEM	1
Introduction	1
Statement of Problem	3
Purpose of Study	7
Addressing the Problem	9
Research Questions	11
Hypothesis	11
Conclusion	12
CHAPTER II: LITERATURE REVIEW	14
Introduction and Overview of Special Education	14
Research Within the Field	15
Timeouts	16
Cognitive-Behavioral Interventions	21
Adding to the Literature	25
Conclusion	27
CHAPTER III: METHODOLOGY	28
Introduction	28
Setting	28
Participants	39
Informed Consent and Assent Procedures	40
Incident Report Instrumentation	41
Database Instrumentation	44
Procedures	46
Modifications	50
Conclusion	51
CHAPTER IV: RESULTS	53
Research Questions	55
Follow-up Analyses: Low, Moderate, and High Frequency of Incidents	59
Conclusion	66
CHAPTER V: DISCUSSION	68
Summary of Findings	68
Implications	74
Limitations	78
Future Directions	80
Conclusion	82

APPENDIX A	84
REFERENCES	86
VITA	93

LIST OF TABLES

Table	Page
1. Summary of Means, Standard Deviations, and F Ratios from ANOVA Results for Actual Duration Over Time	56
2. Summary of Means, Standard Deviations, and F Ratios from ANOVA Results for Average Duration of Timeouts Across Trimesters	56
3. Summary of Means, Standard Deviations, and F Ratios from ANOVA for Actual Duration and Length of Time Before Next Major Incident	59
4. Summary of Means, Standard Deviations, and F Ratios from Repeated Measures ANOVA Results	61
5. Summary of Means, Standard Deviations, and F Ratios from ANOVA Results for Average Duration of Timeouts Across Trimesters for Low, Moderate and High Groups	63

CHAPTER I

STATEMENT OF THE PROBLEM

Introduction

Emotional and behavioral issues experienced by school-aged children are a problem in schools across the country (Illback & Nelson, 1996; Weist, Rubin, Moore, Adelsheim, & Wrobel, 2007). One in five children and adolescents will experience a significant mental health problem during their school years (U. S. Department of Health and Human Services, 2001). Many terms are used in everyday language to describe emotional, behavioral or mental disorders of children and adolescents. Within the education system, students with such disorders are categorized as having an emotional disability (IDEA, 2004). In Illinois, students with an emotional disability have severe, persistent difficulties with social interactions and exhibit inappropriate behavior. An Emotional Disability 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: an inability to learn that cannot be explained by intellectual, sensory, or health factors; an inability to build or maintain satisfactory interpersonal relationships with peers and teachers; inappropriate types of behavior or feelings under normal circumstances; a general pervasive mood of anxiety or unhappiness or depression; or a tendency to develop physical symptoms or fears associated with personal or school problems. An emotional disability includes

Schizophrenia but does not apply to children who are socially maladjusted, unless it is determined that they have an emotional disturbance (Illinois State Board of Education, n.d.). As a result, they tend to receive educational and related services following a label as 'special education' (emotional/behavioral disorders) through the public school system. In the 2003-2004 school year, 6,634,000 children and youth with a variety of disabilities were provided special education and related services in the public schools. In addition, 489,000 children and youth with emotional disabilities were provided special education and related services in the public schools (U.S. Department of Education National Center for Education Statistics, 2006). Per special education regulations (IDEA, 2004), students receiving special education services must be educated in the least restrictive environment appropriate to their needs. There must be a verifiable or compelling reason why a student cannot simply attend class at his or her local school and be taught in a classroom with non-disabled students with the same materials and the same teacher. There are debates about where students with emotional and behavior disorders should be educated. IDEA (2004) states that children with disabilities should be educated in the "least restrictive environment" and, to the maximum extent possible, with children who are nondisabled (34CFR 300.550 (b) 1). IDEA also stresses that schools should have a "continuum of alternative placements" available to meet the individual needs of students with disabilities (34CFR 300.551 (a)). Therapeutic day school placements are coming under increased scrutiny in terms of the "least restrictive environment" requirement. However, some students with emotional disabilities have significant and intense needs, which cannot be met in a regular education setting. Those students are often placed in

therapeutic day schools, which is the educational setting studied in this project. Alternative and therapeutic day schools are designed to create a positive learning environment through a low student-to-teacher ratio, highly structured classrooms with behavioral classroom management, and more individualized instruction (Tobin & Sprague, 1999). Even in such environments, however, it can be overwhelming for school administrators, teachers, school psychologists and other educational staff to serve students and provide them with an equal opportunity to succeed in school. Because of limited resources, alternative and therapeutic day schools differ in their ability to develop effective programs for children with emotional and behavioral issues (Coats, 2006). Few studies have been conducted in therapeutic day schools with regards to the efficacy of the programs and the effectiveness educational and psychological interventions delivered and the results of the studies that have been performed are inconsistent and difficult to interpret, primarily because such programs tend to vary greatly in their interventions, students served, structure, and program goals (Gottfredson, 1997; Tobin & Sprague, 1999). Research on therapeutic day schools and the interventions utilized would be helpful in building more effective programs.

Statement of Problem

Most research continues to focus on assessing the progress of children who are emotionally disturbed and receive special education services within their home school. However, there has been limited recent school-based research conducted in therapeutic day schools. The research that exists suggests varying degrees of effectiveness of

therapeutic day schools as well as specific interventions (Coats, 2006; Tobin & Sprague, 1999).

There is neither federal legislation nor a national model policy in regards to the use of isolated or seclusion timeouts or physical restraint with children in school settings (Ryan, Peterson, & Rozalski, 2007; Ryan, Peterson, Tetreault, & van der Hagen, 2007). Many researchers believe the field of education would benefit from a common set of guidelines to ensure that school staffs are properly trained on intervention techniques to de-escalate students and in the implementation of timeouts (Moses, 2000; Ryan et al, 2007). For almost 40 years, recommendations on policies for the use of isolated timeouts have been made by the courts, researchers, and in professional literature (Cuenin & Harris, 1986; Gast & Nelson, 1977; Nelson & Rutherford, 1983; Ryan et al., 2007; Wood & Braaten, 1984). Educational law organizations have cautioned schools about the possibility of litigation related to the use of behavior management procedures in schools (LRP Publication, 2006). States and their school districts have been advised to create policies and procedures surrounding the use of timeouts in schools (Ryan at al., 2007). According to a 2007 study by Ryan, Peterson and Rozalski, only 24 states were identified as having established policies or guidelines for their districts to follow when using timeout procedures in schools (Arkansas, Colorado, Connecticut, Florida, Idaho, Illinois, Iowa, Kentucky, Maine, Maryland, Massachusetts, Michigan, Minnesota, Montana, New Mexico, New York, Ohio, Oregon, Rhode Island, Texas, Utah, Vermont, Virginia, and Wisconsin). Furthermore, the study found that there was considerable variance in the content and comprehensiveness among states that provided guidance to their school

districts (Ryan et al., 2007).

For years, isolated timeouts have been utilized as an intervention in therapeutic day schools and this persists today. Timeouts are a behavior reduction technique that involves the removal of the opportunity to obtain reinforcement contingent on the occurrence of a response (Grskovic et al., 2004; Wolf, McLaughlin, & Williams 2006). In general, this involves removing the individual from the reinforcing environment altogether or preventing the individual from gaining access to specific reinforcing stimuli in the environment (Bacon, 1990; Grskovic et al., 2004; Martin & Pear, 2003; Turner & Watson, 1999; Wolf et al., 2006). Thomas S. Ewing, Ph.D. NCSP, (2000) argues that timeouts operate as a form of negative punishment, in which a response results in a loss of access to reinforcement and thus decreases in frequency. Furthermore, timeouts will only be effective if the environment from which the student is removed consists of desirable tasks and social interactions and when used in conjunction with a behavioral management program that teaches and reinforces acceptable behaviors.

Additional data was needed in order to examine the effectiveness of timeouts, specifically isolation timeouts, on students with emotional and behavioral disorders in a therapeutic day school. For the purposes of this research, an isolation/isolated timeout was operationally defined as an intervention that involved removing students from an instructional setting and placing them in an isolated room/area (*safe room or quiet room*), which was completely separate from the classroom. In such rooms, students were under the constant supervision of one or more qualified staff. The room utilized for isolation timeouts should have an adequate opening to view the student, adequate lighting,

adequate size (no smaller than 6 feet by 6 feet with normal ceiling height); it should have been a non-injurious environment, with carpeting or padded surface and no loose furniture and it should have an unlocked door (Nelson & Rutherford, 1983).

For decades, a substantial body of literature defined isolated timeout procedures and described the parameters, yet little has been published on the state of practice of isolated timeout procedures (Costenbader & Reading-Brown, 1995; Nelson & Rutherford, 1983). Isolation timeouts should be utilized in conjunction with other behavior interventions, not as the only intervention. Based upon guidelines from the Office of Special Education Programs, United States Department of Education and relevant court cases, isolated timeouts should only be used for behaviors that are dangerous to that student or others, destructive to property, or significantly disruptive and therefore impeding the student's learning or the learning of others (Coats, 2006; Ryan et al., 2007; Ryan et al., 2007). The use of an isolated room should be addressed in a student's individual education plan (IEP) or Section 504 plan as related to the Americans with Disabilities Act. Data should be routinely kept and reviewed in an effort to monitor the effectiveness of decreasing specific behaviors through timeouts (Coats, 2006, Ryan et al., 2007; Ryan et al., 2007).

Individual student and programmatic development requires frequent feedback so that methods and procedures can be augmented or supplemented accordingly. It was important to monitor student progress to insure that the student was benefitting from isolated timeout procedures and whether or not there may have been a need to modify this intervention. At a program level, data-based measurements should be closely

examined to ascertain the efficacy of the isolated timeout procedure. Data remains necessary for deciding whether to maintain, modify or discontinue any program practice including isolated timeouts. Ongoing student and program evaluations serve to instruct and provide cumulative information to teachers, students, parents, and school leaders so that they can make pertinent decisions, remain connected, and allocate resources accordingly (Coats, 2006; Sugai & Lewis, 1999).

This research project aimed to augment the data on isolation timeouts in therapeutic day schools and to contribute to the study of the effectiveness of isolation timeouts on students with emotional and behavioral disorders in a segregated therapeutic day school setting.

Purpose of Study

As mentioned earlier, isolation timeouts have often been part of the behavior modification systems in therapeutic day schools, yet little research exists on their effectiveness in changing behavior. The use of isolation timeouts needs to be carefully documented and regularly reviewed as part of the student's overall treatment plan. Such documentation can be used in evaluating the success of the intervention, determining patterns of behavior or recognizing when adaptations may be necessary.

Costenbader and Reading-Brown (1995) investigated the practices and demographic patterns in the use of isolation timeouts in one special education setting which served 156 emotionally disturbed students in kindergarten through 12th grade in rural upstate New York. The authors were concerned about the high number of overall timeout incidents and the amount of students spent outside the classroom and without

instruction. There were 12,992 occurrences of isolated timeouts over one school year, 1,621 were self initiated (5-minutes in length) and 11,371 were staff-initiated. They argued that, for some students, the out of classroom environment was more reinforcing than the in-classroom environment. Furthermore, the authors suggested that timeouts were considered an ineffective intervention for students who spent a significant actual amount of time in a timeout room because they were not persuaded to use alternative, appropriate behaviors. They hypothesized that a more thorough understanding of the effectiveness of isolated timeouts in special education therapeutic day schools was necessary if a careful determination was to be made of whether and/or under what circumstances it was a justifiable behavior modification intervention.

The goal of the present study was to assess whether the use of isolated timeouts affected students' behavior in the course for a school year in one special education therapeutic day school serving students in grades 3 through 8 with severe emotional disabilities. This research was designed to help the therapeutic day school involved evaluate the efficacy of isolated timeouts, which was and is a fundamental program intervention strategy utilized in their program. This study aimed to contribute to the research by exploring the use of isolation timeouts in a therapeutic day school.

The state in which the school is located does have state-wide requirements for the utilization of isolated timeouts. Pursuant to Section 1.280 and 1.285 of the state Administrative Code [23 Ill. Admin. Code 1.280, 1.285], an isolated timeout should only be employed to preserve the safety of self or others. The use of an isolated timeout permits the use of isolated timeout and physical restraint of students, when needed, as a

means of behavioral intervention with students. "Isolated timeout" means the confinement of a student in a timeout room or some other enclosure, whether within or outside the classroom, from which the student's egress is restricted. Furthermore, enclosures used for timeouts have to have the same ceiling height as surrounding rooms, be free of materials and objects that students could use to harm either themselves or others; and the supervising adults must be permitted continuous visual monitoring and communication as well as remain within two feet of the enclosure. Additionally, students should not be kept in isolated timeout for more than 30 minutes after they cease exhibiting the specific behavior for which the timeout was enforced. Pursuant to Sections 10-20.33 and 14-8.05 of the School Code [105 ILCS 5/10-20.33 and 14-8.05], staff is required to document each incident of isolated timeout; parents or guardians must be sent a written notice within 24 hours after any use of an isolated timeout (unless the parent or guardian provides a written waiver of this requirement for notification); and a student's behavior intervention plan should be created or reviewed.

Addressing the Problem

Costenbader and Reading-Brown (1995) recommended future research on timeout procedures and encouraged researchers to replicate their findings in a special education setting for emotionally disturbed students in other geographic regions. Even though this study was not a replication of the Costenbader and Reading-Brown study, it answered their recommendation for future research on timeout procedures. Costenbader and Reading-Brown (2006) thought that a more thorough understanding of the effectiveness of isolated timeouts in special education therapeutic day schools was

necessary if a careful determination was to be made of whether and/or under what circumstances it was a justifiable behavior modification intervention. This project's purpose and focus was to provide additional insights into the utilization of isolated timeouts in one special education therapeutic day school over the course of the 2006-2007 school year. Furthermore, this study aimed to augment the data on isolation timeouts in therapeutic day schools and contribute to the research by exploring the use of isolation timeouts.

Similar to Costenbader and Reading-Brown's 1995 study, the current study examined the total number of incidents and the total time spent in isolated timeouts, but it did so at a different special education therapeutic day school setting. However, the Costenbader and Reading-Brown study and this study were different because the school-wide timeout procedures used in each of the schools were different from one another. For example, at the school Costenbader and Reading-Brown studied, timeouts were awarded following the third infraction of the same rule during a single time period; students were sent to the timeout room for periods from 5 to 30 min in 5-min incremental intervals, for 60 min, or "until bus" (i.e., upon arrival of the school buses at the end of the day) most students walked to the timeout area unaccompanied; and students were not required to do schoolwork during their timeout). Also, the Costenbader and Reading-Brown study examined the following things that were not included in this study: the demographic patterns in the use of isolation timeouts; behaviors most frequently given a consequence in timeout; relationship between the use of timeout and age and/or restrictiveness of placement; and patterns in the use of timeout over the academic day,

week, and year (2006).

Research Questions

In particular, the current study investigated how students were responding to the timeouts, if there were any significant changes in the length of the timeouts being delivered, and if there were any significant changes in how timeouts were being used over the course of a school year. The purpose of the current study was to answer the following questions:

- 1) Did the number of isolated timeouts incidents given to a student decrease over time?
- 2) Did the severity of a student's behavior decrease over time, as measured by the duration of the isolated timeout across trimesters?
- 3) Did the actual amount of time it took the student to calm down and be under instructional control decrease with each subsequent isolated timeout?
- 4) Was there a relationship between the duration (or "Consequences that apply to the incident" as referred to in the database) of the isolated timeout and the actual amount of time, measured in school days, before a student's next major incident that lead to an isolated timeout?

Hypothesis

The hypothesis for the first research question was that for the majority of students, the number of isolated timeouts given to a student decreased over time. If this was the case, isolated timeouts were an effective intervention for the majority of students with severe emotional disability served in therapeutic day schools.

The hypothesis for the second research question was that for the majority of

students, the severity of a student's behavior decreased over time as measured by a decrease in the duration of the isolated timeout over the three trimesters. If this was the case, isolated timeouts were an effective intervention for the majority of students with severe emotional disability served in therapeutic day schools.

The hypothesis for the third research question was that for the majority of students, the actual amount of time it took the student to calm down and be under instructional control decreased with each subsequent isolated timeout. If this was the case, isolated timeouts were an effective intervention for the majority of students with severe emotional disability served in this therapeutic day school.

The hypothesis for the fourth research question was that for the majority of the students there was an inverse relationship between the cumulative timeouts and the interval of time between the next major behavioral incidents. If this was the case, it would be concluded that isolated timeouts were an effective intervention for the majority of students with severe emotional disability served in this therapeutic day school.

Conclusion

For decades, isolated timeouts have been frequently utilized as an intervention in therapeutic day schools, which involved removing students from an instructional setting and placing them in an isolated room/area (*safe room* or *quiet room*), which was completely separate from the classroom (Nelson & Rutherford, 1983). Timeouts, regardless of the type, should be used in combination with a behavioral management program that teaches and reinforces acceptable behaviors (Ewing, 2000). The use of isolation timeouts needs to be carefully documented and regularly evaluated to determine

if and when adaptations are necessary. The goal of the present study was to assess whether the use of isolated timeouts affected students' behavior in the course of a school year in one special education therapeutic day school in the suburb of a large Midwestern city which served students in grades 3 through 8 with severe emotional disabilities. This research provided additional insights into the utilization of isolated timeouts in a special education therapeutic day school in the course of a school year, thus guiding problem solving and decision making on interventions. In particular, this study investigated how students responded to the timeouts, if there were any significant changes in the length of the timeouts delivered, and if there were any significant changes in how timeouts were being used over the course of a school year.

CHAPTER II

LITERATURE REVIEW

Introduction and Overview of Special Education

Every year, under the Individuals with Disabilities Education Act (IDEA), 2004 millions of children with disabilities receive special services designed to meet their unique needs. For infants and toddlers with disabilities (birth through two) and their families, special services are provided through an early intervention system. For school-aged children and youth (aged three through 21), special education and related services are provided through the school system. The disability must affect the child's educational performance and each individual state is responsible for meeting the special needs of eligible children with disabilities. These services can be very important in helping children and youth with disabilities develop, learn, and succeed in school and other settings. Children must receive a full and individual initial evaluation to determine whether they are eligible for services. There are 13 different disability categories in which three- through 21-year-olds may be eligible for services: autism, deaf-blindness, emotional disability, hearing impairment (including deafness), mental retardation, multiple disabilities, orthopedic impairment, other health impairment, specific learning disability, speech or language impairment, traumatic brain injury, or visual impairment (including blindness). A child may not be identified as disabled just because he or she speaks a language other than English or has had inconsistent schooling (National

Dissemination Center for Children with Disabilities, 2002).

Students with an emotional disability have severe, persistent difficulties with social interactions and exhibit inappropriate behavior. To qualify under the Individuals with Disabilities Act (IDEA), a student has to exhibit one or more of the following characteristics over a long period of time: (1) an inability to learn that cannot be explained by intellectual, sensory, or health factors; (2) an inability to build or maintain satisfactory interpersonal relationships with peers and/or adults; (3) inappropriate types of behavior or feelings under normal circumstances; (4) a general pervasive mood of unhappiness or depression; and (5) a tendency to develop physical symptoms or fears associated with personal or school problems (National Dissemination Center for Children with Disabilities, 2002). These characteristics also have to adversely affect the students ability to participate in classroom instruction to a marked degree.

Research Within the Field

Special education, as has been historically defined, is deficit-focused (e.g., devoted to finding deficiencies in a child's capacity) and children are referred by school staff and/or parents to determine if they meet the criteria for disability classification. Once the student is determined to be eligible, differential categories lead to different placements for part or all of the school day. However, the traditional practice of testing and placement has not resulted in positive outcomes for students for a number of reasons: disability labels typically do not provide sufficient information for effective treatment planning, assessment procedures are frequently without documented treatment validity, and often poor quality educational interventions are implemented (Tilly, 2002).

Overall classroom management techniques, as well as individual student behavior interventions, should maintain a constructive focus that results in an effective and positive educational environment. The intent of any behavior or discipline intervention is not merely to reduce or control undesired behaviors, but to instruct in the acquisition of appropriate replacement behaviors (Sugai et al, 2000). A number of interventions have been proposed to meet the behavioral and social-emotional needs of students with diagnosed disabilities. We will briefly review some of these approaches, in particular, isolated timeouts, Cognitive-Behavioral Modification (CBM), and Cognitive-Behavioral Therapy (CBT) interventions.

Timeouts

First, timeouts lie within a continuum of behavioral interventions and should only be used when less restrictive interventions have not been successful. However, many agree that an exception to this is when students exhibit extreme acting out behaviors that are a safety concern and when they may cause harm to themselves or others (Costenbader & Reading-Brown, 1995; Wolf et al., 2006), are destructive to property, or exceptionally disruptive to their surroundings (Coats, 2006; Gast & Nelson, 1977). Educators and other school personnel have used timeout procedures to modify a broad range of maladaptive behaviors in children. Timeouts can be a powerful behavior management tool when they are utilized appropriately (Costenbader & Reading-Brown, 1995; Gast & Nelson, 1977; Turner & Watson, 1999). According to Wolf et al., (2006), timeouts are on a continuum from what is considered least to most restrictive. First comes planned ignoring which involves the removal of social attention. Next is non-

exclusionary which involves removing the student from the reinforcing activity; however, the student is still able to observe the ongoing activity. An exclusionary timeout involves removing a student physically as well as visually from the reinforcing situation; however, he or she remains in the activity area (such as having them sit in a study carrel in the classroom). Lastly, isolation timeouts involve removing a student from the reinforcing activity area and placing them in a separate room where they are continually supervised (Coats, 2006; Wolf et al., 2006).

Isolation timeouts have been utilized across settings including self-contained special education classrooms, therapeutic day schools, residential treatment centers, and psychiatric hospital units (Costenbader & Reading-Brown, 1995; Elliott, Witt, Gavin, & Peterson, 1984). In order for isolated timeouts to be effective, the environment that the student is removed from must consist of desirable tasks and social interactions as well as teach and reinforce acceptable behaviors (Bacon, 1990). Conversely, the research indicates that it is imperative that all forms of reinforcement be removed from a timeout situation (e.g. talking to, maintaining eye contact and other forms of attention); otherwise, the effectiveness of the timeout decreases. Staff should keep interactions with the student to a minimum and remain neutral with regards to their voice tone and affect (Coats, 2006). Furthermore, timeouts can have the opposite effect if a student exhibits maladaptive behaviors as a method to escape a difficult or monotonous task or avoid particular staff or peers (Costenbader & Reading-Brown, 1995; Harris, 1985; Miller 1986; Polsgrove, 1991).

In the book, *Intensive Kids Intensive Interventions: Designing School Programs for Behaviorally Disordered Children and Youth*, the author, Kevin Coats, Ph.D. (2006), discusses the necessity for programs that serve students who are behaviorally and emotionally disturbed to have an area or room to go to that is quiet and has limited stimulation. Isolation timeout rooms should be used to help students and staff stay safe, reduce students' shamefully or embarrassing feelings surrounding their behavior, and protect them from unfavorable interactions and reactions from peers. Furthermore, Coats emphasizes that the principal reason for having an isolation timeout room is to assist the out-of-control or acting out student to calm down and reorganize themselves from a cognitive standpoint in order to employ effectual coping skills (Bridge et al., 1986; Coats, 2006).

The major concerns discussed in the literature surround the use of isolated timeouts. First, timeouts are considered a more restrictive form of behavior management. Positive interventions (e.g., praise, differential reinforcement, token economies) are rated as more acceptable by teachers and parents than what are seen as negative interventions (e.g., response cost, timeout, or loss of privileges). Also, implementing timeouts, especially isolated timeouts, require personnel to supervise and resources such as additional space or a room (Elliott et al., 1984). Next, practitioners must address legal concerns; isolation timeouts should only occur after less restrictive interventions have been used and documented as ineffective; parent/guardian permission should be obtained, reviewed, approved, and included in a student's individualized education plan (IEP) or Section 504 plan; the school or program must provide adequate training and supervision

to staff; and the room used for isolation timeout should have an adequate opening to view the student, adequate lighting, adequate size, be a non-injurious environment, with carpeting or padded surface and no loose furniture and it should have an unlocked door (Nelson & Rutherford, 1983). Practitioners must also address ethical concerns: loss of instructional time, policies of least restrictive interventions, opportunities to engage in appropriate behaviors in the classroom (Gast & Nelson, 1977; Turner & Watson, 1999). Students with behavioral and emotional disabilities have maladaptive social behaviors. They often lack the skills for engaging in more appropriate behaviors. However, when they are in a timeout situation, these students are not exposed to alternative or replacement behaviors to help them learn more effective and adaptive ways to gain attention from teachers and peers. Therefore, it is important to return them to the classroom environment as promptly as possible so that they may have those opportunities (Betz, 1994; Gast & Nelson, 1977; Wolf et al., 2006).

A study was conducted by Virginia Costenbader and Margery Reading-Brown (1995) to determine if isolation timeout used with students with emotional disability decreased serious and dangerous behaviors. There were 156 students in a special education facility in rural upstate New York, all of whom were classified as emotionally disturbed. There were school-wide timeout procedures. Staff-initiated a timeout if a student exhibited the same inappropriate behavior three times during a period or a student exhibited dangerous behaviors. Students were sent to timeout rooms for periods of five to 30 minutes in 5-minute increments. The classroom teachers called the stationed staff in the timeout room area to make them aware that a student was coming and the reason for

the timeout. Students rarely had to be escorted by staff. Once in the timeout area, the student had to exhibit appropriate behavior in order for their timeout to commence. Additional time was added if a student's behavior began to decline again. Upon completion of the timeout period, students returned to their classroom. They were expected to control themselves and continue their classroom work. The students were held accountable for any assignments or classroom work that they missed while in timeout. As noted earlier, there were 12,992 occurrences of isolated timeouts over one school year, 1,621 were self-initiated (5-minutes in length) and 11,371 were staff-initiated. On average, there were 74 timeout incidents per day school wide, which lasted 16.36 minutes. Students spent an average of 23 hours per year in the timeout room. The timeout room was used most often on Tuesdays. There was not a significant difference between months with regard to the usage rates.

In addition, research comparing various durations of a timeout have produced diverse results. Benjamin. Mazzarins, and Kupfersmid (1983) compared the effects of 15-, 30-, 45-, 60-, and 90-minute timeouts on psychiatric hospital patients. It took longer for patients to comply when they knew that they would be in timeout for a long period of time. The researchers concluded that shorter durations help reduce the number of maladaptive behaviors while someone is in timeout. Patrick McGuffin studied the use of timeouts in the treatment of aggressive behaviors of 20 hospitalized children (between the ages of 4 years, 2 months and 12 years, 9 months) with conduct disorders. Specifically, he compared the effectiveness of four different timeout durations: 1, 5, 10, and 20

minutes. The results showed that the 5-minute duration was as or more effective than any other assessed duration. Even though there are inconclusive results with regard to a specific duration being the most effective, overall, the results did not support the use of extended periods of timeout (1991). Professionals from the field of school psychology special education argue that the duration of a timeout should be brief, 1-5 minutes. They acknowledged that any amount of time exceeding 15 minutes defeats the purpose of a momentary timeout from positive reinforcement (Ewing, 1998; Gast & Nelson, 1997; Harrington, 2004).

Cognitive-Behavioral Interventions

Next, isolation timeouts are a behavior reduction technique that involves the removal of the opportunity to obtain reinforcement contingent on the occurrence of a response (Grskovic et al., 2004; Wolf et al., 2006). Isolation timeouts should be utilized in conjunction with other behavior interventions, not as the only intervention. A therapeutic day school must implement a milieu-based behavioral management program (Coats, 2006). Furthermore, other interventions that have been proposed to meet the behavioral and social-emotional needs of students with diagnosed disabilities are Cognitive-Behavioral Interventions (CBI) which is a broad term that encompasses Cognitive-Behavioral Modification (CBM) and Cognitive-Behavioral Therapy (CBT) (Robinson, Smith, & Brownell, 1999). Robinson et al. (1999) went on to describe CBI as a behavior modification approach that promotes self-control skills and reflective problem-solving strategies. Interventions combine elements of behavior therapy (modeling, feedback, reinforcement) with cognitive approaches (problem solving, self-

monitoring, self-instruction, communication skill building, relaxation, and situational self-awareness training) to teach individuals to recognize difficult situations, think of possible solutions, and select the most appropriate response. Effective therapeutic day schools utilize CBI by focusing on the impact that cognition has on feelings and thus on resulting behaviors. Through various interventions, such as self-instruction and self-monitoring, students in therapeutic day schools are supposed to be instructed in replacement behaviors and coping strategies. Students should have opportunities throughout the school day to develop and strengthen appropriate behavioral and coping skills. The goal is to lead them gradually to more positive social interactions and outcomes (Committee for Children, 1992).

Research has shown that education professionals can play instrumental roles in the delivery of CBI (Pucci, 2005). Therefore, it is important to properly train school staff for participation in a comprehensive prevention program. A CBI model is effective when working with children who demonstrate disruptive behaviors at any point throughout the school day within a therapeutic day school for several reasons. First, CBI is effective for a wide range of problems (e.g., depression and mood swings, shyness and social anxiety, chronic worry or anxiety, insufficient self-esteem, etc.) and schools have diverse populations with diverse needs. Also, this approach can be used to help anyone regardless of their ability, culture, race, gender or sexual orientation; again, schools have diverse populations with diverse needs. The therapist plays an active role in solving the client's problems, which is important for children and adolescents who may not have the insight, cognitive skills, awareness or verbal skills to pinpoint their needs and problems.

Additionally, the client participates in setting treatment goals and provides input about the techniques that work best for him or her. As a result, the plan is explicit and understandable to the child. There are clear expectations that are set with the child so the child does not feel as though someone in authority or in the majority is placing strict rules on or setting him or her up for failure. When there is a set plan in place for the client, it does not matter which adult is implementing the plan with the child at any given time. With CBI, the plan is the same across multiple settings, regardless of the person implementing it with the child (Pucci, 2005). Moreover, children can work on improving their feelings and mood by focusing on the present and on future goals rather than on a possibly difficult or confusing past. As children get older, they will be equipped with increasingly constructive thoughts, beliefs, attitudes, etc. Therefore, they will be able to face challenges and opportunities with clarity and a calmer mind down the road (Mayer, Lochman, & Van Acker, 2005).

CBT is a form of psychotherapy that emphasizes the important role of thinking in how we feel and what we do. It is based on the idea that our thoughts and meanings we attribute to events cause our feelings and behaviors, not external things, like people, situations, and events. Therefore, if someone is experiencing unwanted feelings and behaviors, it is important to identify the thinking causing the feelings and behaviors and to learn how to replace this thinking with thoughts that lead to more desirable reactions. CBT therapists believe that clients change when they learn to think differently. CBM is a method of modifying or changing behavior through the use of conditioning techniques such as reinforcement, feedback and modeling (Robinson et al., 1999). When

implementing CBM, children and adolescents receive frequent feedback about positive and negative personal, social and academic behaviors (National Dissemination Center for Children with Disabilities, 2007).

Research has not been conducted to evaluate the effectiveness of cognitive behavioral intervention strategies in conjunction with timeouts. However, Stage (1997) evaluated the effectiveness of three phases of timeout with 36 students identified with behavioral disorders. The phases included students serving a 15-minute timeout, students serving a timeout with an academic assignment to complete during timeout; and timeout with a problem solving task pertaining to the reason for the timeout. Reasons for referral to timeout fell into one of four types of behavior: disruptive behaviors in the classroom, verbal abuse, leaving the classroom without permission, or physical aggression. Results of this study demonstrated that there were no effects on the disruptive behavior regardless of the type of timeout or disruptive behavior.

A study published in the *Journal of the American Academy of Child & Adolescent Psychiatry* evaluated the impact of implementing a broad, milieu-based behavioral management program (Dean, Duke, George, & Scott, 2007). The subjects were children and adolescents who exhibited aggressive behaviors while receiving treatment in a psychiatric inpatient unit. The program incorporated individualized patient management plans, early detection and prevention, staff training, and reinforcement of appropriate behaviors. Data was collected over a 6-month period before and after the program introduction to measure the number of episodes of aggressive behavior, injuries, use of physical restraint, seclusion, P.R.N. sedation (Latin for "pre re na'ta," having to do

with the utilization of psychotropic medication on an as needed basis), use of security services, and staffing factors. During the study, the hospital did not decrease the number of admissions, change the types of patients admitted, increase staff costs, or increase the use of P.R.N. medications. The results showed that the implementation of a broad, milieu-based behavioral management program led to a significant reduction in the number of aggressive episodes, injuries, the utilization of physical restraints, and the duration of seclusions.

Adding to the Literature

Leading the systems change movement is the use of problem-solving in schools in an attempt to infuse scientific method into applied educational practice (Reschly & Ysseldyke, 2002). Problems within learning and behavior can result from factors residing within the individual, within the broader environment, within teacher characteristics, or an interaction between the three (Dawson, 1994; Ryan, Sanders, Katsiyannis & Yell, 2007). The data-based problem solving model enables school personnel, including those at therapeutic day schools, to assess all variables by operationally identifying the problem(s), exploring solutions, and evaluating the progress across domains. At therapeutic day schools, data collection on things such as target behaviors, major behavioral incidents, and isolated timeouts should be done on a frequent and continual basis in order to assess and document the impact of change efforts and interventions (Phillips, Boysen, & Schuster, 1997). Interventions, including isolation timeouts, need to be the result of data-based problem solving emphasizing instructional need, prevention, and student progress (Elliott et al., 1984; Simonsen & Sugai, 2007).

The development of appropriate school behaviors, social skills and coping skills was the principal goal at the therapeutic day school. Cognitive-behavioral therapy was a form of psychotherapy that was employed by the therapists (social workers and psychologists) at this therapeutic day school.

The Costenbader and Reading-Brown (1995) study was important and contributed to the literature on isolation timeouts especially as an intervention utilized within a special education facility. The research was completed over 20 years ago. Therefore, obtaining current data on the total number of incidents and the total time spent in isolated timeouts was fundamental. Furthermore, it was critical to collect the data and examine it a little further to determine how students were responding to the timeouts, if there were any significant changes in the length of the timeouts being delivered, and if there were any significant changes in how timeouts are being used over the course of a school year.

The Benjamin et al. (1983) and McGuffin (1991) studies both examined various timeout durations to determine which was most effective. These studies were conducted 15-20 years ago and assessed psychiatric hospitalized children. Benjamin et al. and McGuffin offer interesting information on the effects of various timeout durations. However, it is unknown whether the results can be generalized to a school building with students who were not hospitalized for psychiatric concerns. Therefore, it was pertinent to collect current data on students in a school setting in order to provide additional insights into the utilization of isolated timeouts in a special education therapeutic day school in the course of a school year, thus guiding problem solving and decision making

on interventions (Ryan et al., 2007).

Conclusion

An isolation timeout is an intervention that is often used within therapeutic day schools as part of their behavior modification systems yet little research exists on the effectiveness in changing behavior. It is important for therapeutic day schools to document isolated timeouts in a systematic and careful manner. Then, the staff should use the documentation in evaluating the success of the intervention, determining patterns of behavior or recognizing when adaptations may be necessary (Illback, Zins & Maher, 1999). As previously mentioned, this research project aims to augment the data on isolation timeouts in therapeutic day schools in order to contribute to the study of the effectiveness of isolation timeouts on students with emotional and behavioral disorders in this context.

CHAPTER III

METHODOLOGY

Introduction

The therapeutic day school involved in this study has a behavior management program that utilizes multiple intervention strategies to meet the needs of the diverse population it serves. The behavior management program was employed by all of the school's staff throughout the day. It was adapted from a model developed and utilized at Father Flanagan's Boys' Home in Boys Town, Nebraska (Munger, 2007). It was a method of modifying or changing behavior through the use of conditioning techniques such as reinforcement, feedback and modeling (National Dissemination Center for Children with Disabilities, 2007). The program's assumptions were that most behaviors were learned and thus new behaviors could be taught. A formal behavior modification system had been in use at the therapeutic day school for several years. It had been evaluated and updated as the population of the program changed. It was a progress monitoring system that provided a lot of information and data via point tracking sheets, database, and incident reports. Students were provided with frequent feedback concerning both positive and negative personal, social, and academic behaviors and earned positive or negative points based on their behavior.

Setting

The school's behavior modification system consisted of four level systems (Level

I, II, III, and IV) that students could advance through with the goal of being re-integrated into their home schools. Level I focused on basic and essential school work habits. Points were usually given on a continuous basis throughout every class period (35 minutes in length). Level II continued to focus on school work habits, but also added a focus on social and coping skills. Points were usually given on a continuous basis throughout every class period. Level III continued to focus on social and coping skills goals specific to the needs of the individual student. Points were summarized at the end of a class period rather than on a continuous basis. Level IV focused on preparation for integration (including participation in activities such as home school visits, an integration group, etc.). The teacher, therapist, and student designed two increasingly challenging contracts which targeted specific individual goals aimed at preparation for successful integration. The goals may have focused on such things as work habits, social, and/or coping goals demonstrated primarily at school, but also at home if necessary. All individual goals related to each student's individual education plan (IEP) goals. Staff explained each student's goals to them and what they needed to do in order to demonstrate progress. The majority of the students were responsible for writing down their earned positive and negative points on a point sheet. The students took a carbon copy of their point sheets home at the end of every school day. Parents/guardians were encouraged to review the daily point sheets and especially note positive behaviors, improvements, and student's individual goals.

The school's staff was trained and then encouraged to "catch the students being good" and have them earn bonus points so as to encourage positive behavior and shape

emerging target behaviors. The belief among staff was that a student should earn bonus points for having gone above and beyond what was normally expected or to reinforce the behaviors that were addressed (a student's goals, behaviors or skills a student was working on, skills a student had difficulty demonstrating or behaviors he or she had difficulty resisting). Each bonus point was worth +500 points. The maximum number of bonus points staff members were encouraged to give per class period was +5,000.

The lowest point value assigned to a negative point consequence was -5,000 and went up to -50,000. For example, when a student swore, displayed extremely poor social skills, made comments such as "get away from me" or was rude towards peers, he or she earned a "poor peers," which corresponded to a negative point consequence. When a student swore at staff, displayed extremely poor social skills towards staff, made comments such as "get away from me," or made a rude comment in response to redirection from staff, he or she earned a "poor adult," which corresponded to a negative point consequence. According to the point system, the consequence for these behaviors was -10,000 points. When students misbehaved, they were provided an opportunity to earn back a percentage of lost points by demonstrating the appropriate alternative behavior. In this way, even negative experiences were treated as teachable moments and could be turned around to motivate students. The curriculum strived to teach appropriate social responses across all daily interactions. One of the strengths of the program was that the plan/level system was the same across multiple settings, regardless of the person who implemented it with the child.

The behavior point and level system was utilized in conjunction with a variety of

curriculum instruction strategies, problem solving techniques, counseling approaches, and crisis intervention methods. Teachers and therapists team taught a wide variety of coping and interpersonal skills. These included developing strategies for managing emotions such as anger and anxiety; personal and social problem solving; and building positive relationships with adults and peers. The social and coping skills curriculum was taught throughout the therapeutic milieu through such things as direct instruction in the classroom, individual counseling sessions, group counseling sessions, prompting and redirection during crisis, and reinforcement through the behavior management level system.

In recent years, the school started to get an increase in referrals for students in primary grades, kindergarten through 2nd grade. In the second half of the 2005-2006 school year, the teachers and therapists involved with the primary classrooms revamped the point sheets for those students in the kindergarten through 2nd grade classrooms. A point system and point sheets were created for these students that mirrored those already existing for intermediate and middle school students. The point sheets for the primary grade students incorporated smaller point values and visual symbols in an effort to make them age and educationally appropriate. Even though students between kindergarten through 2nd grade played an important role and offered an interesting dynamic to the population at the school, they were not included in this study. The staff often varied timeout procedures and duration for these primary level students based upon individual differences and the student's age. Therefore, the data was not commensurate with the

intermediate and middle school students and it was decided that they would be excluded from the study.

The setting where this research took place was within a zero reject public therapeutic day school. Approximately 105-115 students attended the school; 100% of the students were eligible to receive Special Education services. In the 2005-2006 school year, the student population included 59% White, not Hispanic; 27% Black, not Hispanic; 12% Hispanic; and 2% Asian/Pacific Islander. During that same school year, 53% of the students were eligible for the free or reduced-price lunch program (U.S. Department of Education, National Center for Education Statistics, 2006). However, since this research only focused on students in grades 3 through 8 who were enrolled in the program at any point during the year, approximately 90-100 students were a part of this research study. The students participated in the Illinois Standards Achievement Test (ISAT) and their IEPs dictated the accommodations to be made for their participation in assessments (National Assessment of Educational Progress, 2007). After the students completed the ISAT tests, this therapeutic day school sent the tests back to the home schools of each student so that they were scored and compiled with the home schools. The school's curriculum was individualized to meet both the achievement levels and the learning styles of individual students. Curriculum goals were consistent with the state's Learning Standards and the objectives of the Special Education Cooperative.

Each classroom team, which consisted of the teacher, paraprofessionals and therapist routinely consulted and collaborated with each other. Students were primarily instructed by a special education teacher. There were two paraprofessionals (aides)

assigned to every classroom to assist the teacher and the students. The therapists were either social workers or school psychologists. Once per week, each classroom team had a formalized meeting. However, staff usually remained in frequent communication throughout the school day about students' successes, difficulties, emotional concerns, logistical concerns, and so forth. While it may have been time-consuming, communication among classroom teams was an essential part of this program. It was critical for all staff to communicate a consistent message to the students about what behaviors were inappropriate, why they were inappropriate, the consequences for those behaviors, appropriate replacement behaviors, and how students could demonstrate progress. There was common language utilized by all staff members with respect to the identifying and labeling behaviors, earned consequences and rewards, and the expectations with regards to timeouts and alternative learning site (ALS) rooms. The ALS rooms were used for isolation timeouts, yet students were supervised by at least one trained staff member at all times (a more detailed description of the rooms and their function are below). There were staff meetings held for staff newer to the program one morning per week for the entire first year of employment at the school. The meetings were taught by a master teacher who had been a part of the program for over 20 years. New staff members were taught how to interact with the students especially when they displayed inappropriate behaviors, about the level system, how to complete the point sheets, etc. These skills were mostly taught through small-group and large-group role playing so that they could put to practice what they learned and get immediate feedback. Teachers and therapists were also encouraged to assist new staff members and explain

procedures to them both before and after school as well as throughout the day.

At the start of the 2006-2007 school year, there were nine classrooms which spanned kindergarten through 8th grade. All classrooms were taught by a special education teacher with no less than 13 years of experience teaching students with similar needs in a therapeutic or alternative setting. Another class was added in January to accommodate for increased referrals that commonly happen throughout the school year. The teacher assigned to the additional classroom was a first-year teacher who had previously been an aide at this school for 4 years. The classrooms usually covered two or three grade levels. Most students were kept with the same teacher for a two-year period in order to provide consistency. However, some students changed teachers from year to year or in the middle of the year as students advanced a grade level or to accommodate the aforementioned increases in enrollment. At any given point throughout the 2006-2007 school year, there were as few as seven and as many as 12 students in a classroom. On average, there were 10 students per classroom.

Each therapist was typically assigned to two classrooms and together with the classroom staff provided therapeutic services to the students. Therapists conducted two half-hour group counseling sessions within the classroom as well as individual counseling sessions. They assisted with behavioral management during and processing after a crisis. They wore a pager, so they could be contacted if necessary. There was also a crisis team of six members, one of whom was rarely available for crisis situations because he instructed the physical education classes for the school, two others had some other responsibilities in the school (the Spanish translator for meetings and phone calls

with parents and a therapist who had five students on his caseload). The crisis team members assisted with behavioral and physical management of students during crisis. If necessary, they also supervised students while in timeout until someone from the classroom team relieved them. Although the crisis team members were often busy assisting in crisis situations, they also tried to check-in with classrooms and engaged in positive interactions with students who were not in crisis.

At this therapeutic day school, whenever possible, behavior management was addressed within the classroom. Students were challenged to address concerns with staff members or other students within the context of the classroom. Time outside of the classroom was utilized as a “last resort.”

Events that lead up to the timeout incidents could occur throughout the school grounds and school building as well as at home and on bus transportation to and from school. ALS interventions were designed for the following purposes:

- To provide a logical social consequence for behaviors extremely disruptive to the classroom community
- To assist a student in regaining behavioral or emotional control
- To prepare a student for a productive return to the standard classroom
- To serve as an alternative consequence for behaviors that in standard school settings might result in suspensions

Specific behaviors that resulted in ALS time were:

- Staff aggression
- Student aggression

- Serious destruction of property
- Extreme, continuous disruptive behavior that cannot be turned around after repeated attempts to intervene within the classroom
- Either repeated out of area or dangerous out of area incidents (e.g., off campus, climbed up in a tree, etc.).

Most of the timeouts occurred within a designated ALS room. The rooms used for isolation timeout included a long narrow shatter-proof glass window within the door, adequate lighting, adequate size with normal ceiling height, and white cinder block walls. The rooms were non-injurious environments (e.g., all lights and outlets were covered and there was limited loose furniture that was moved if necessary). Also, the floors were rubberized “sport floors” and floor mats were accessible. The doors on the ALS rooms did not lock and students were supervised by at least one trained staff member at all times. The protocol was for the staff member to be in the room with the student. At this therapeutic day school, a timeout not only involved removing students from an instructional setting and placing them in an isolated room/area but also reduced instruction from a 10 to 3 to a 1 to 1 ratio.

Furthermore, some students were encouraged by staff to take a self-initiated timeout in an ALS room as a way to demonstrate pro-social coping skills and to calm themselves down. These student-initiated timeouts were typically 5 minutes in length. Students were not required to complete school-work while in ALS, but were required to show that they could follow instructions before they returned to the classroom. Although student-initiated timeouts were seen as a positive coping strategy by staff, they were not

included in this study.

Staff assigned the length of the timeout based on a general protocol. Most isolated timeouts were either 30-minutes or 3-hours in length. Timeouts that were 30-minutes in length (a single class period) were for behaviors that significantly or repeatedly disrupted the milieu of the classroom or building. 3-hour isolated timeouts were in lieu of suspension and generally were reserved for being physically aggressive to staff or peers or extreme destruction of property. Additionally, at times, aggression led to police action which was initiated by administration based on a protocol including severity of incident, age of student, frequency of occurrence, and other factors.

Once in the timeout area, the student first worked on calming down and being able to follow simple instructions given to them. If the student exhibited appropriate behavior and was under instructional control, then he or she was asked if he or she was ready to begin his or her schoolwork. The student was expected to respond in a respectful manner that he or she was ready to start his or her work. Once the student actually began their schoolwork the time commenced and counted towards their 30-minute or 3-hour timeout. It was up to staff's discretion whether he/she allowed a student who served a 3-hour timeout to get "earn back," which meant that the student only had to complete half of or 1 ½-hours of their 3-hour timeout. (Thus if a student accepted responsibility for his or her behavior, accepted the consequence, and exhibited the alternative appropriate behaviors required of appropriately functioning students, he or she would reduce the length of a classroom removal in lieu of suspension. It was based upon the student's behavior for example, if the student calmed down and started his or her

work quickly and then remained on-task then his or her timeout might have been shortened to 1 ½ hours. If any student's behavior began to decline after they started their schoolwork, then the assignment was taken away until the student demonstrated that they could follow instructions and resume instructional control. The classroom teachers decided what assignments should be worked on while in timeout. The types of assignments included those that required instruction from the staff who supervised the student, tasks that could have been completed independently, and/or the same schoolwork that had been worked on within the classroom. Acceptance and earn back are central features of the Boys' Town Model's attempt to use discipline moments as teaching moments.

The researcher in this study was employed as a therapist at the participating therapeutic day school at the time the data was collected, but is no longer working there. There were 5 therapists on staff during the 2006-2007 school year. The researcher was assigned to work with students in two classrooms. One of the classrooms consisted of students between kindergarten and 2nd grade, which were not included in the study's sample. The other classroom she worked with consisted of students between 6th-8th grade, and they were included in the study's sample. As a staff member, the researcher, was routinely involved in providing feedback to students concerning students' behavior; filled out incident report forms after an occasion of note such as the use of an ALS, physical restraint, or isolated timeout; and input the information from the students' point sheets and incident reports into the program outcome-behavior database. The researcher was involved in collecting a small portion of the overall data utilized in this study.

However, it was for the sole purposes of fulfilling standard job requirements and responsibilities. The data was archival and there were no special concerns related to recruitment, informed consent, or confidentiality of research data.

Participants

The study population was made up of students with severe emotional and behavioral disorders who attended a zero reject public therapeutic day school in grades 3rd through 8th. All of the students were removed from their home schools and were placed at this school. They were eligible to receive special education services because their disabilities adversely affected their educational performance (National Dissemination Center for Children with Disabilities, 2002). For a majority of the students, the primary disability was Emotional Disability. However, there were students whose primary disability was Other Health Impairment (ADHD), Autism Spectrum Disorder, or Specific Learning Disability; for those students, Emotional Disability was the secondary disability. At this school, 55% of the students typically receive psychotropic medication supports.

Children and adolescents who had emotional disabilities may have exhibited some of the following characteristics and behaviors: hyperactivity, aggression/self-injurious behavior, withdrawal, excessive fears, and poor coping skills. Many typically developing children and adolescents often displayed some of these same characteristics and behaviors throughout their lives. However, for those who had an emotional disability these feelings and behaviors continued over a long period of time. Students with an emotional disability struggled to cope with their environment and get along with others.

Children and adolescents who displayed psychosis were often considered the most severely emotionally disturbed and may have exhibited such things as distorted thinking, excessive anxiety, bizarre motor acts, and abnormal mood swings (National Dissemination Center for Children with Disabilities, 2004).

The students at this school were taught essential academic skills and appropriate social and coping skills. The school also encouraged positive self-esteem and promoted self-discipline and personal responsibility. The overall goal was to prepare students for re-integration into their standard home school programs. Some students have attended this school for as little as six months, while others have remained for many years. As previously mentioned, this was a program for students between kindergarten and 8th grade. However, in the interest of synthesizing and analyzing data, the populations focused on in this study were students between 3rd and 8th grade (9-14 years-old). Subjects for this study were enrolled in a facility administered by a special education cooperative of 14 school districts in a suburb of a large metropolitan area. 75% of the students came from 6 member district schools and 25% came from 8 non-member district schools.

Informed Consent and Assent Procedures

This research was a component of the therapeutic day school's ongoing program evaluation and school improvement efforts. This research involved the collection and study of existing data which had been in existence in its entirety since June, 2007. All data was entered and recorded daily by school staff so that student progress could have been monitored daily. The behavioral database served as a vehicle that allowed staff to

quickly review, analyze, and summarize individual student progress on the behavioral motivation level system as well as IEP goals. Therefore, the data was collected for purposes other than this research project. All students were assigned a subject number and all identifying information was removed in order to protect their anonymity. The results of this study had no bearing on a student's eligibility to receive special education services. This research involved no foreseen risks to the participants and had Loyola University Chicago IRB approval.

Since the time that the data was collected, many students no longer attend the therapeutic day school. Some of the students have been fully integrated back into their home schools some of which were in district and others were out of district. Other students had since moved away and there was no forwarding address for them. There were twenty-nine 8th grade students who attended the therapeutic day school at some point during the 2006-2007 school year. The 8th grade students that graduated presumably attended various alternative, therapeutic, and regular education programs and high schools both in and out of the area. The school forwarded records on when students leave the program. It was impractical and impossible to implement and obtain consent and assent procedures for a majority of the participants. The researcher requested and was granted a waiver of informed consent from IRB and did not believe the waiver would have adversely affected the rights and welfare of the participants.

Incident Report Instrumentation

Incident report forms were completed after any occasion of note that the school's staff members believed were important to document and file (Appendix A).

Staff was told to record only factual information and what he or she observed. The forms were hand-written or typed on the computer. They were routinely filled out by staff members if the episode involved the use of an alternative learning site, “physical restraint”, or “isolated timeout” (within a locked ALS room also considered to have been a “seclusion timeout”). It was important to define the terms utilized on this school’s incident report form so not to be confused with similar terms used in the research yet referred to different situations or parameters.

In this study, an “isolated timeout” involved removing a student from an instructional setting and placing them in an isolated room, which was completely separate from the classroom. The student was under the constant supervision of one or more qualified staff and had an unlocked door (Nelson & Rutherford, 1983). However, on the incident report forms (Appendix A), this type of timeout was referred to as an *ALS*. The aforementioned definition of isolated timeout was not the same as the *isolated timeout* indicated on the incident report forms. At this particular school, an *isolated timeout* indicated a locked door with the student in the room and the staff outside. None of the data collected for this research involved or included the placement of a student alone in a locked room. Therefore, when the evaluator referred to isolated timeout on the incident report forms it was in an effort to discuss the form and did not indicate relevance to data collected for this research. This paper did not address timeout procedures that involved the placement of a student alone in a locked room.

At the top of the incident report forms there was identifying information about the student and what had been documented. There was space for the student’s name as well

as their teacher's and therapist's name. Then, the date, time of the entire incident (the time it began until the time it ended), the location, who supervised the student, and the staff involved. Next, there was space to indicate whether the episode involved the use of ALS, physical restraint, or isolated timeout and the beginning and ending times for each. Subsequently, staff reported the events that led up to the incident, interventions that were employed prior to the incident, a description of the student's behavior, a description of any injuries/property damage (if applicable a separate staff/student injury report form was completed and attached to the incident report), and interventions were employed in dealing with the behavior in the future. These sections were completed only if the student was physically restrained or in an isolated timeout. If relevant, staff logs a student's behavior if he or she was physically restrained (which included the type of restraint, number of times, duration) or in an isolated timeout. If an episode lasted longer than the indicated time limit (30 minutes for an isolated timeout or 15 minutes for a physical restraint), or happened repeatedly over a 3-hour time period, staff members needed to evaluate whether the student needed any/all of the following: medication (if the incident was ongoing during the student's scheduled time to take medication as prescribed by the student's physician), nourishment (which included water), use of the restroom, or "alternative strategies" (such as police or medical assistance). If a student was physically restrained or in isolated timeout, staff evaluated whether it was appropriate to utilize these intervention strategies with that student in the future. If the staff member(s) deemed this appropriate, they indicated that by checking a box. Then, at the bottom of the incident report form, staff indicated whether contact was made with

home/parent, and if so, who was contacted, type of contact (e.g., phone conversation, in-person, voicemail message, etc.), the date/time, and which staff contacted him/her/them. Next, there was a place to indicate whether a school official was contacted (e.g., therapist, principal, bus driver etc.) and if so, who was contacted and the date/time. Lastly, the person(s) who completed the form were required to sign and date it. After the forms had been filled out, they were taken directly to the classroom and put in a designated spot (e.g., in a bin on the aides' desk) or they were put into the teacher's mailbox in the school office.

Database Instrumentation

All new staff members were trained during the new staff orientation at the beginning of the school year on how to utilize the school's database system. The classroom aides were primarily responsible for inputting the information from the students' point sheets and incident reports into the program outcome-behavior database on a daily basis. Also, each student had a daily target behavior and two additional target behaviors (1 & 2) which were also tracked in the database. The daily target behavior occurred many times throughout the day (e.g., talked out, off-task, did not follow instructions, etc.). The two target behaviors were student specific goals that were identified by the classroom team or the IEP team; they were often the same/similar to the goals on the student's point sheet as well as their IEP goals. These behaviors occurred, on average, once a day or less (for some students, especially for those on Level I, they may have occurred multiple times per day, but not as often as the daily target behavior). In January 2005, the database was implemented as a method to record students'

daily progress as well as track specific incidents and behaviors. The database afforded easy, searchable access to student records. The information could have been utilized in discussions with parents, as a tool in the development of a new treatment plan or to aid in the proving or disproving the effect of an already existing treatment plan. It was a valuable tool for a classroom team or an IEP team to use when they looked for patterns, trends, as well as increases and decreases in the exhibition of certain behaviors.

Usually all students were on the buses by 3:00 PM. The work day ended at 3:30 PM for the classroom aides; this allowed them some time to complete their paperwork and update the database. At the latest, information was entered by the following school day. If the classroom aides were unable to input the data, the classroom teacher or therapist was responsible for entering it. There were several computers in every classroom, in the computer lab, as well as some offices which had access to the database. The database was on the school's server and could not be entered via the internet. Staff logged in under his or her user name and password in an effort to keep the information confidential and so that students did not have access to the system. The database was fairly user-friendly. In order to streamline a majority of the data, staff was asked to click on boxes next to the entries that applied to the pertinent incident. If the behaviors or consequences were not listed, the person who entered the data typed a brief description in the section labeled "Other."

Classroom staff was encouraged to utilize the same abbreviations to describe behaviors so that a search could have been performed more accurately if necessary. There was also a space labeled "Notes" for additional significant details. Each incident report

entered into the database was assigned a report number. This report number was to be written at the top of the incident report form; this provided a link between the paper copy and the entry into the database. Lastly, the staff member who inputted the data into the database made three copies of the incident report form with the corresponding database report number on the top. One copy was put into the following staff members' mailbox: the principal, the school secretary (who files them), the teacher, and the therapist.

Procedures

This research utilized the database to determine the effectiveness of isolation timeouts for students with severe emotional disabilities in a therapeutic day school. For the purposes of this paper, an isolated timeout involved removing a student from an instructional setting and placing him/her in an isolated room (*safe room* or *quiet room*), which was completely separate from the classroom. The student was under the constant supervision of one or more qualified staff. The data was collected and input into the database during the 2006-2007 school year.

Each use of an isolation timeout needed to be documented and regularly reviewed as part of the student's overall treatment plan. The documentation could have been used in evaluating the success of the intervention, determining patterns of behavior or recognizing when adaptations may be necessary. Isolation timeout should have only been utilized for behaviors that were dangerous to the acting out student or others, when there was a destruction of property or when the behavior was severely disruptive to the educational environment. These behaviors led to an isolation timeout and the pertinent information of every episode was recorded on an Incident Report Form and then inputted

into the database.

The operational definition of an isolated timeout that was utilized when determining whether an incident was included in the data involved removing students from an instructional setting and placing them in an unlocked isolated room/area, which was completely separate from the classroom (Ewing, 2000; Wolf et al., 2006). Again, the special education school in which the data was gathered referred to isolated timeouts as ALS, which was an Alternative Learning Site. When references were made in this study to “all students” this pertained to only students in 3rd through 8th grade who were enrolled in this therapeutic day school program at any point from the first day of school in late August 2006 through the last day of school in early June, 2007. The researcher was given access only to the relevant data from the behavioral database and incident report forms at the therapeutic day school by the supervisory personnel. Upon retrieval of the data, all students were assigned a subject number and all identifying information was removed in order to protect their anonymity.

The first item that was tallied for this study was the total number of isolation timeout incidents. The reason this information was gathered was to get an idea of how many incidents occurred which involved 3rd through 8th graders who were enrolled in this therapeutic day school program at any point during a year. This was measured by computing the total number of isolated timeout incidents for each student in the study. Each isolated timeout was counted as a single incident. Information was taken from the school’s computer database where it was routinely entered.

The second item that was tallied for this study was the total time spent in

isolation timeout. The reason this information was gathered was to get an idea of how much time was spent in isolation timeout by 3rd through 8th graders who were enrolled in this therapeutic day school program at any point in a year. This was measured by computing the total number of minutes spent in isolated timeout incidents for each student in the study. The number of minutes spent in isolated timeouts each week was counted. This information was obtained by tallying the number of minutes between the beginning and ending time of an ALS/ isolated timeout as logged on the Incident Reports by relevant staff immediately following isolation timeout incidents. The number of minutes between the beginning and ending time of an ALS/ isolated timeout was entered into Excel by the researcher so that this data could be utilized again to answer the research question below pertaining to the duration of the timeout incidents.

The first research question was: Did the number of isolated timeouts given to a student decrease over time? This was measured by computing the total number of isolated timeouts given to each student on a weekly basis. Each isolated timeout was counted as a single incident. Information was taken from the school's computer database where it was routinely entered. The database was updated on a daily basis but, in an effort to make the data less cumbersome the measurement of time was analyzed on a weekly basis.

The second research question was: Did the severity of a student's behavior decrease over time, as measured by the actual duration of the isolated timeout across trimesters? There was a general school-wide protocol in which the more extreme the behaviors (suspendable offenses in a standard setting) the longer the duration of the

timeout. The protocol was as follows:

Timeouts were 30 minutes for behaviors that significantly or repeatedly disrupt the milieu of the classroom or building; 3-hours (in lieu of suspension) for physical aggression to staff or peers or extreme destruction of property; or completed half, or 1 ½-hours, of their 3-hour timeout if a student's behavior changed for the better and warranted "earn back" time for good behavior. Information was taken from the school's computer database. If a student had an isolated timeout, staff was asked to check one of the following boxes in the database as a way to describe the actual duration of the timeout: "ALS- under 60 minutes," "ALS- 60 to 180 minutes," or "ALS- 180+ minutes." The staff recorded duration was analyzed in these three categories. Information was collected and input into the database on a daily basis but in an effort to make the data less cumbersome the measurement of time was analyzed on a weekly basis.

The third research question was: Did the actual amount of time it took the student to calm down and be under instructional control decrease with each subsequent isolated timeout? The actual amount of time in isolated timeout was counted for each student. This information was obtained by tallying the number of minutes between the beginning and ending time of an ALS/ isolated timeout as logged on the Incident Reports by relevant staff immediately following isolation timeout incidents. The number of minutes between the beginning and ending time of an ALS/ isolated timeout was entered into Excel by the researcher after determining the total time spent in isolation timeout. The measurement of time was analyzed daily based upon the next isolated timeout incident. This was an important question because it recorded how long a student spent in

ALS/isolated timeout and therefore, out of the classroom, away from classroom instruction, and separated from opportunities to observe and engage in appropriate behaviors and positive social interactions (Betz, 1994; Gast & Nelson, 1977; Turner & Watson, 1999; Wolf et al., 2006). For example, some students may have taken 4 hours to complete a 30-minute ALS/isolated timeout, which was valuable data to collect and information to gather. Finally, the average amount of time it takes to calm down for each trimester was calculated and a correlation was run between Trimester 1 versus 2, and then Trimester 2 versus 3.

The fourth research question was: Was there a relationship between the duration (or “Consequences that apply to the incident” as referred to in the database) of the isolated timeout and the actual amount of time before a student’s next major incident that led to an isolated timeout? Information was taken from the school’s computer database. If a student had an isolated timeout, staff was asked to check one of the following boxes in the database as a way to describe the duration of their time in ALS: “ALS- under 60 minutes,” “ALS- 60 to 180 minutes,” or “ALS- 180+ minutes.” The duration (or “Consequences that apply to the incident” as referred to in the database) was analyzed in these three categories. The measurement of time was analyzed based upon the next isolated timeout incident.

Modifications

Despite original intentions to analyze the behavioral data on a weekly basis, the difficulty of managing the data at such a level proved too cumbersome. Thus, the dates of the timeout incidents were extracted from the database as originally planned. However,

they were instead analyzed on a trimester basis. The school year, from late August, 2006 through early June, 2007, was broken down into trimesters, or 3 one-thirds of the academic year (August 23-November 20, November 21- March 7, March 8-June 7). School holidays and breaks were accounted for, yet each trimester was based on approximately three calendar months.

Furthermore, the timeout duration data was obtained as originally planned from the database and was exported into a column on the Excel spreadsheet. While this researcher tallied the duration of each timeout from the data on the Incident Reports, she observed several instances in which the duration of timeouts recorded were less than 30 minutes. In an effort to capture these shorter time periods, timeouts lasting less than 30 minutes were separated out from those lasting less than 60 minutes and manually changed on the Excel spreadsheet. As a result, staff duration reports were coded and analyzed in the following four categories: ALS-under 30 minutes, ALS-30 to 60 minutes, ALS-60 to 180 minutes, and ALS-180+ minutes.

Conclusion

Isolation timeout should only be used for behaviors that are dangerous to the acting out student or others, when there is a destruction of property or when the behavior is severely disruptive to the educational environment. These behaviors lead to an isolation timeout and the pertinent information of every episode is recorded on an Incident Report Form and then input into the database. The data was collected and input into the database during the 2006-2007 school year. This research will utilize the database to determine the effectiveness of isolation timeouts for students with severe

emotional disabilities in a therapeutic day school. Each use of an isolation timeout needs to be documented and regularly reviewed as part of the student's overall treatment plan. The documentation can be used in evaluating the success of the intervention, determining patterns of behavior or recognizing when adaptations may be necessary.

CHAPTER IV

RESULTS

This present study focuses on a school-based response, the isolation time-out frequently found in therapeutic day schools (Costenbader & Reading-Brown, 1995; Elliott et al., 1984; Grskovic et al., 2004). For the purposes of this paper, an isolation/isolated timeout involves removing students from an instructional setting and placing them in an isolated room (*safe room* or *quiet room*), which is completely separate from the classroom. In general, this involves removing the individual from the reinforcing environment altogether or preventing the individual from gaining access to specific reinforcing stimuli in the environment (Bacon, 1990; Grskovic et al., 2004; Martin & Pear, 2003; Turner & Watson, 1999; Wolf et al., 2006).

For review, data was collected daily on ninety-nine 3rd through 8th grade students attending a therapeutic day school and entered into the therapeutic day school's database. The results indicated that there were a total of 1150 isolated timeout incidents during the 2006-2007 school year. The breakdown of these incidents by grade was as follows: Grade 3 ($n = 129$, 11.20%), Grade 4 ($n = 107$, 9.30%), Grade 5 ($n = 224$, 19.50%), Grade 6 ($n = 197$, 17.10%), Grade 7 ($n = 265$, 23.00%), and Grade 8 ($n = 228$, 19.80%). Almost a third ($n=361$, 32.2%) of all isolated timeouts occurred during the first trimester of the year; almost a third ($n=356$, 31.8%) in the second trimester; and slightly more than a third ($n=403$, 36.0%) in the third trimester. The date of the incident was unknown for 30 (2.30%) of the incidents. The majority of the timeouts were 30 to 60

minutes in duration ($n = 672$, 60.50%), followed by 60 to 180 minutes ($n = 305$, 27.50%), 180+ minutes ($n = 92$, 8.30%), and less than 30 minutes ($n = 41$, 3.70%). The duration was unknown for 40 (3.50%) of the incidents.

There was an average of 10.22 ($SD = 19.10$) days between timeout incidents for students that had more than one timeout. There was a positively skewed distribution to the data in which most cases had relatively few days between events and few cases showed relatively longer periods between events. Therefore, the median of 4.0 days between timeout incidents for individual students that have had repeated timeouts is a more appropriate measure of central tendency. The average duration of time spent in isolated timeout was 102.60 ($SD = 154.9$) minutes. However, again, there was a positive skew to the distribution. Thus, the median duration of time spent in isolated timeout of 73.00 minutes provides a more accurate measure of the center of the data (where the population was centered) (Freedman, Pisani, & Purves, 2007).

Next, this researcher analyzed the number of timeouts per trimester as well as the total number of timeouts for the year, per student. Each student had an average of 11.30 ($SD = 15.20$) timeouts over the course of the year. It was important to look where the population was centered and the median of 5.00 timeouts over the course of the year is a more appropriate measure of central tendency (Freedman, Pisani, & Purves, 2007). Of the 99 3rd through 8th grade students attending the therapeutic day school, 30 (30.30%) of them had no timeout incidents, whereas 16 (16.20%) students had more than 25 timeout incidents over the course of the school year. The maximum number of timeouts for any

one student was 87 incidents. There were no differences across grades 3rd through 8th with regards to the total number of timeouts, $F(5, 93) = 1.24, p = .30$.

Research Questions

The first research question was: Does the number of isolated timeouts given to a student decrease over time? It was hypothesized that, for the majority of students, the number of isolated timeouts given to a particular student would decrease over time (Hypothesis 1). If this was the case, there would be a significant decline in the number of timeouts in the third trimester as opposed to the first and second and isolated timeouts could be considered an effective intervention for students with severe emotional disability served in therapeutic day schools. A repeated measures analysis of variance was conducted to examine the sheer number of isolated timeouts over time (i.e., per academic trimester) for each student. The results indicated that there was no significant differences over time: $F(2, 196) = 0.34, p = .64$. Students had an average of 3.65 ($SD = 5.60$) isolated timeouts the first trimester, an average of 3.60 ($SD = 5.96$) isolated timeouts the second trimester, and an average of 4.07 ($SD = 7.06$) isolated timeouts the third trimester (see Table 1). Therefore, Hypothesis 1 was not supported, as the number of isolated timeouts given to a student did not decrease over time. Again, when references were made in this study to “students” this pertained to only students in 3rd through 8th grade who were enrolled in this therapeutic day school program at any point from the first day of school in late August 2006 through the last day of school in early June, 2007. The standard deviations are greater than the means is meaningful, as it suggests that there is a lot of variability in the data, which may obscure mean differences.

Table 1. Summary of Means, Standard Deviations, and F Ratios from ANOVA Results for Actual Duration Over Time

Trimester	<i>M</i>	<i>SD</i>	<i>F</i>	<i>p</i>
Trimester 1	3.65	5.60	0.34	.64
Trimester 2	3.60	5.96		
Trimester 3	4.07	7.06		

Note. Trimester 1 = Aug. 23-Nov. 20, Trimester 2 = Nov. 21-Mar. 7, Trimester 3 = Mar. 8-June 7.

The second research question was as follows: Did the severity of a student's behavior decrease over time, as measured by the duration of the isolated timeout across trimesters? The second hypothesis was that, in addition to the sheer quantity of isolated timeouts, the overall duration of timeouts would decrease over time, as measured by a decrease in the duration of the isolated timeout for this group of students. If this was the case, isolated timeouts could be considered an effective intervention for the majority of students with severe emotional disability served in therapeutic day schools. A repeated measures analysis of variance was conducted to determine whether there were significant differences in the average duration of isolated timeouts for each student across trimesters. The Mauchly's Test of Sphericity was run to test the assumption that there are equal variances across groups. Mauchly's Test of Sphericity was not significant, indicating that the assumption of homogenous variances was not violated and the results can be

interpreted with confidence. The results indicated no significant differences in average duration across trimesters, $F(2, 132) = 0.59, p = .55$, partial $\eta^2 = .01$. Students averaged 66.42 ($SD = 52.68$) minutes in the first trimester, 74.74 ($SD = 67.11$) minutes in the second trimester, and 66.20 ($SD = 54.11$) minutes in the third trimester (see Table 2).

Table 2. Summary of Means, Standard Deviations, and F Ratios from ANOVA Results for Average Duration of Timeouts Across Trimesters

Trimester	<i>M</i>	<i>SD</i>	<i>F</i>	<i>p</i>
Trimester 1	66.42	52.68	0.59	.55
Trimester 2	74.74	67.11		
Trimester 3	66.20	54.11		

Note. Trimester 1 = Aug. 23-Nov. 20, Trimester 2 = Nov. 21-Mar. 7, Trimester 3 = Mar. 8-June 7.

The third research question was as follows: Does the actual duration it takes the student to calm down and be under instructional control decrease with each subsequent isolated timeout? It was hypothesized (hypothesis number 3) that, for the majority of students, the actual amount of time it takes the student to calm down and be under instructional control decreases with each subsequent isolated timeout. If this hypothesis was true, one would expect to see a negative correlation between the sequence of incidents per student (i.e., the incident number per student) and the actual duration of isolated timeout, in that it would take the student less time to regain control after the 20th incident as opposed to the 10th. If this hypothesis was true, isolated timeouts could be

considered an effective intervention for the majority of students with severe emotional disability served in therapeutic day schools. A simple Pearson correlation was run between Trimesters 1 and 2 and revealed no correlation between the two, $r = .20, p > .05$. From this data, there is no indication that students require less time to regain control between Trimester 1 and 2. A simple Pearson correlation was run between Trimesters 2 and 3 and revealed a correlation between the two, $r = .37, p = .002$. From this data, there is indication that students require less time to regain control between Trimester 2 and 3.

The fourth research question was as follows: Is there a relationship between the duration of the isolated timeout and the actual amount of time before a student's next isolated timeout incident? It was hypothesized that, for the majority of the students, there was an inverse relationship between the cumulative timeouts and the interval of time between the next major behavioral incidents. If this was the case, isolated timeouts could be considered an effective intervention for the majority of students with severe emotional disability served in therapeutic day schools. Analysis of variance with Tukey's post hoc analysis was utilized to assess the impact of duration on the length of time before the student's next major incident. The results indicated that there was not a significant relationship between the duration of a prior timeout and the length of time before a student's next major incident, $F(3, 1038) = 1.04, p > .05$. Students as a group, had an average of 6.50 days ($SD = 8.99$) until the next major incident when experiencing an isolated timeout under 30 minutes, an average of 9.96 days ($SD = 19.77$) until the next major incident when experiencing an isolated timeout of 30 to 60 minutes, an average of 10.93 days ($SD = 16.79$) until the next major incident when experiencing an isolated

timeout of 60 to 180 minutes, and an average of 12.42 days ($SD = 25.02$) until the next major incident when experiencing an isolated timeout of 180+ minutes (see Table 3).

Therefore, hypothesis 4 was not supported, as there was not an inverse relationship between the assigned consequences and the length of time before a student's next major incident.

Table 3. Summary of Means, Standard Deviations, and F Ratios from ANOVA for Actual Duration and Length of Time Before Next Major Incident

Duration	<i>M</i>	<i>SD</i>	<i>F</i>	<i>p</i>
<30 minutes	6.50	8.99	1.04	.38
30-60 minutes	9.96	19.77		
60-180 minutes	10.93	16.79		
180+ minutes	12.42	25.02		

Follow-up Analyses: Low, Moderate, and High Frequency of Incidents

A visual review of the distribution of data indicated that it was positively skewed resulting in larger mean in comparison with the median. The mean is sensitive to outliers (i.e., extreme values or numbers). A relatively small number of students had a high number of timeouts, which distorted the results. Therefore, the median was a more accurate measure of central tendency (Freedman, Pisani, & Purves, 2007). Subsequently, the researcher noted the lack of significant findings for all four research questions. As a result, the researcher thought it was important to look more closely at the data (rather than analyzing the data from a school-wide perspective and instead looking) to determine if isolated timeouts are an effective intervention for certain subgroups by looking at

different cut points by group.

Thus, quantitative sorting was done and the data was grouped into Low, Moderate, and High number of timeout incidents per student. The Low group consisted of the first third or 33.3% (i.e., 23 cases, 1-6 timeout incidents), the Moderate group consisted of the second third or 33.3% (i.e., 23 cases, 7-19 timeout incidents), and the High group consisted of the last third or 33.3% (i.e., 23 cases, 20 or more timeout incidents). The researcher was interested in examining whether there were different patterns in the data for each group. The four original research questions were posed again and the data was analyzed separately for each group based on these cut points.

The first research question examined whether the number of isolated timeouts given to a student decreased over time. A series of repeated measures analyses of variance was conducted to examine the number of isolated timeouts over time (i.e., per academic trimester: 1, 2, and 3), separately for each group (Low, Moderate, and High number of timeouts). For those in the Low group, those with 1-6 timeout incidents, the results indicated no significant differences over time, $F(2, 44) = 2.34, p > .05$, partial $\eta^2 = .10$. Students had an average of 1.17 ($SD = 1.34$) isolated timeouts the first trimester, an average of 0.43 ($SD = 0.79$) isolated timeouts the second trimester, and an average of 1.22 ($SD = 1.62$) isolated timeouts the third trimester. Similarly, for those in the Moderate group, those with 7-19 timeout incidents, the results indicated no significant differences over time, $F(2, 44) = 1.31, p > .05$, partial $\eta^2 = .06$. Students had an average of 4.52 ($SD = 3.33$) isolated timeouts the first trimester, an average of 3.00 ($SD = 2.84$) isolated timeouts the second trimester, and an average of 4.52 ($SD = 3.65$) isolated

timeouts the third trimester. For those in the High group, those with 20 or more timeout incidents, the results also indicated no significant differences over time, $F(2, 44) = 0.70$, $p > .05$, partial $\eta^2 = .03$. Students had an average of 11.61 ($SD = 8.23$) isolated timeouts the first trimester, an average of 9.65 ($SD = 6.17$) isolated timeouts the second trimester, and an average of 12.65 ($SD = 10.93$) isolated timeouts the third trimester (see Table 4).

Again, none of the results indicated a significant difference over time. Therefore,

Hypothesis 1 was not supported and the number of isolated timeouts given to a student in the Low, Moderate, or High group did not decrease over time.

Table 4. Summary of Means, Standard Deviations, and F Ratios from Repeated Measures ANOVA Results

Frequency of Incidents / Group	<i>M</i>	<i>SD</i>	<i>F</i>	<i>p</i>
<i>Low Group</i>				
Trimester 1	1.17	1.34	2.34	.11
Trimester 2	0.43	0.79		
Trimester 3	1.22	1.62		
<i>Moderate Group</i>				
Trimester 1	4.52	3.33	1.31	.28
Trimester 2	3.00	2.84		
Trimester 3	4.52	3.65		
<i>High Group</i>				
Trimester 1	11.61	8.23	0.70	.50
Trimester 2	9.65	6.17		
Trimester 3	12.65	10.93		

Note. Trimester 1 = Aug. 23-Nov. 20, Trimester 2 = Nov. 21-Mar. 7, Trimester 3 = Mar. 8-June 7.

* denotes significant *p* value ($p < .05$).

The second research question evaluated whether the severity of a student's behavior decreased over time, as measured by duration of the isolated timeout across trimesters. A repeated measures analysis of variance was conducted to determine whether there were significant differences in the average duration of isolated timeouts for each student across trimesters separately for each group (Low, Moderate, and High number of timeouts). The Mauchly's Test of Sphericity was run to test the assumption that there are equal variances across groups. Mauchly's Test of Sphericity was not significant, indicating that the assumption of homogenous variances was not violated and the results can be interpreted with confidence. For those in the Low group, those with 1-6 timeout incidents, the results indicated no significant differences over time, $F(2, 38) = 0.19, p = .83, \text{partial } \eta^2 = .01$. Students had an average of 34.34 ($SD = 36.27$) minutes duration the first trimester, an average of 38.50 ($SD = 74.36$) minutes duration the second trimester, and an average of 45.23 ($SD = 60.19$) minutes duration the third trimester. Similarly, for those in the Moderate group, those with 7-19 timeout incidents, the results indicated no significant differences over time, $F(2, 44) = 0.08, p = .92, \text{partial } \eta^2 = .004$. Students had an average of 76.54 ($SD = 57.65$) minutes duration the first trimester, an average of 79.39 ($SD = 56.96$) minutes duration the second trimester, and an average of 72.56 ($SD = 51.06$) minutes duration the third trimester. For those in the High group, those with 20 or more timeout incidents, the results also indicated no significant differences over time, $F(2, 44) = 2.28, p = 0.12, \text{partial } \eta^2 = .09$. Students had an average of 89.09 ($SD = 46.64$) minutes duration the first trimester, an average of 104.86 ($SD = 55.42$) minutes duration the second trimester, and an average of 79.65 ($SD = 48.57$)

minutes duration the third trimester (see Table 5). Again, none of the results indicated a significant difference over time. Therefore, Hypothesis 2 was not supported and the duration isolated timeouts for a student in the Low, Moderate, or High group did not decrease over time.

Table 5. Summary of Means, Standard Deviations, and F Ratios from ANOVA Results for Average Duration of Timeouts Across Trimesters for Low, Moderate and High Groups

Frequency of Incidents / Group	<i>M</i>	<i>SD</i>	<i>F</i>	<i>p</i>
<i>Low Group</i>				
Trimester 1	34.34	36.27	0.19	.83
Trimester 2	38.50	74.36		
Trimester 3	45.23	60.19		
<i>Moderate Group</i>				
Trimester 1	76.54	57.65	0.08	.92
Trimester 2	79.39	56.96		
Trimester 3	72.56	51.06		
<i>High Group</i>				
Trimester 1	87.09	46.64	2.28	.12
Trimester 2	104.86	55.42		
Trimester 3	79.65	48.57		

Note. Trimester 1 = Aug. 23-Nov. 20, Trimester 2 = Nov. 21-Mar. 7, Trimester 3 = Mar. 8-June 7.

The examined whether the actual duration it took the student to calm down and be under instructional control decreased between Trimesters 1 versus 2 and then, Trimesters 2 versus 3 for each group (Low, Moderate, and High number of timeouts). For those in the Low group, students with 1-6 isolated timeout incidents, a Pearson correlation was

run between Trimesters 1 and 2 and revealed no correlation between the two, $r = -.12$, $p >.05$. For those in the Low group, a Pearson correlation was also run between Trimesters 2 and 3 and revealed no correlation between the two, $r = .36$, $p >.05$.

Similarly, for the Moderate group, students with 7-19 timeout incidents a Pearson correlation was run between Trimesters 1 and 2 and revealed no correlation between the two, $r = -.21$, $p >.05$. For the Moderate group, a Pearson correlation between Trimesters 2 and 3 and revealed no correlation between the two, $r = -.09$, $p >.05$. Finally, for the students in the High group, those with 20 or more timeout incidents, there was a significant Pearson correlation between Trimesters 1 and 2 $r = .43$, $p = .04$. Finally, for the students in the High group, those with 20 or more timeout incidents, there was a significant Pearson correlation between Trimesters 1 and 2 $r = .43$, $p = .04$. Finally, for the students in the High group, there was a significant Pearson correlation between Trimesters 2 and 3 $r = .60$, $p = .002$. As a result, Hypothesis 3 was not supported for the Low and Moderate groups between Trimesters 1 and 2 and 2 and 3; however, it was supported for the High group between Trimesters 1 and 2 and 2 and 3.

The fourth research question examined whether there was a relationship between the duration of the isolated timeout and the actual amount of time before a student's next isolated timeout incident. A series of analyses of variance was conducted to assess the impact of duration on the length of time before the student's next major incident, separately for those in the low, moderate, and high groups. For students in the Low group, those with 1-6 timeout incidents, the results indicated significant differences in the number of days before the next incident across durations of timeouts, $F(3, 38) = 6.17$, $p <$

.05. Tukey's post-hoc analysis could not be run because more than one group had fewer than two cases. However, students experiencing a less than 30 minute isolated timeout had an average of 3.00 ($SD =$ only one case) days before the next incident, those given a 30-60 minute isolated timeout had an average of 32.00 ($SD = 40.96$) days before the next incident, those given a 60-180 minute isolated timeout had an average of 20.78 ($SD = 28.63$) days before the next incident, and those given a 180+ minute isolated timeout (3 or more hours) had an average of 177.00 ($SD =$ only one case) days before the next incident. For students in the Moderate group, those with 7-19 timeout incidents, the results indicated no significant differences in the number of days before the next incident across actual duration levels of timeouts, $F(3, 248) = 0.28, p > .05$. Students experiencing a less than 30 minute isolated timeout had an average of 12.00 ($SD = 7.86$) days before the next incident, those experiencing a 30-60-minute isolated timeout had an average of 17.11 ($SD = 27.08$) days before the next incident, those experiencing a 60-180 minute isolated timeout had an average of 19.4 ($SD = 22.24$) days before the next incident, and those experiencing a 180+ minute isolated timeout had an average of 16.90 ($SD = 23.81$) days before the next incident. For students in the High group, those with 20 or more timeout incidents, the results indicated no significant differences in the number of days before the next incident across duration of timeouts, $F(3, 744) = 0.52, p > .05$. Students experiencing a less than 30 minute isolated timeout had an average of 5.19 ($SD = 8.96$) days before the next incident, those experiencing a 30-60-minute isolated timeout had an average of 6.54 ($SD = 13.01$) days before the next incident, those experiencing a 60-180 minute isolated timeout had an average of 6.93 ($SD = 10.49$) days

before the next incident, and those experiencing a 180+ minute isolated timeout had an average of 8.24 ($SD = 14.05$) days before the next incident. Therefore, hypothesis 4 was not supported and there was no relationship between variables. For those in the Low group, there was a significant difference in the number of days before the next incident across duration of timeouts. However, there were too few cases in the smallest and longest duration groups (only one case in each), which obscured any relationship that might exist.

Finally, the differences between severity groups were explored in terms of the number of days between incidents. Analysis of variance revealed significant differences across the three groups in terms of the number of days between incidents, $F(2, 1048) = 60.29, p < .05$. The Low group, had the highest number of days between incidents ($M = 29.95, SD = 42.23$), followed by the Moderate group ($M = 17.59, SD = 25.03$), and then the High group ($M = 6.67, SD = 12.26$), which was the hypothesized direction of findings.

Conclusion

In summarizing the data, there were a total of 1150 isolated timeout incidents during the 2006-2007 school year. There was a median of 4 days between timeout incidents, the median duration of time spent in isolated timeout was 73 minutes, and a median of 5 timeouts over the course of the year. The number of isolated timeouts given to a student did not decrease over time. There was a significant but negligible correlation between duration of timeouts and the incident number per student such that it was not practically significant. Furthermore, there is no indication that students require less time

to regain control with each subsequent timeout. There was not a relationship between the duration of timeout and the length of time before a student's next major incident. Next, the four research questions were analyzed separately by group (Low, Moderate, and High), and all but one analysis yielded non-significant findings, similar to the larger group. However, for students in the High group, those with 20 or more timeout incidents, research question two was supported in that with each subsequent timeout given to a particular student, the length of time experienced in isolated timeouts decreased, suggesting a regression in the severity of the student's behavior.

CHAPTER V

DISCUSSION

Summary of Findings

For nearly 50 years, timeouts have been used to address a broad range of maladaptive behaviors across educational placement settings and have been incorporated into numerous classroom behavior management plans for students. Timeouts are a behavior reduction technique that involves the removal of the opportunity to obtain reinforcement contingent on the occurrence of a response (Grskovic et al., 2004; Wolf et al., 2006). In general, this involves removing the individual from the reinforcing environment altogether or preventing the individual from gaining access to specific reinforcing stimuli in the environment (Bacon, 1990; Grskovic et al. 2004; Martin & Pear, 2003; Turner & Watson, 1999; Wolf et al., 2006). Timeouts will only be effective if the environment from which the student is removed consists of desirable tasks and social interactions. Timeouts operate as a form of negative punishment, in which a response results in a loss of access to reinforcement and thus decreases in frequency. The result of this intervention, if effective, should decrease the future probability that the undesired behavior will reoccur (Ewing, 2000). The therapeutic day school in this study uses timeout as one of several interventions available to the student. At times, the timeout is used as a negative punishment, and at times it is used as an intervention,

allowing the opportunity for coping skills training. The data collected for this study does not differentiate the purpose of the timeout.

The goal of the present study was to assess whether the use of isolated timeouts affected students' behavior in the course of a school year in one special education therapeutic day school serving students in grades 3 through 8 with severe emotional disabilities. The results, in general, indicated that the number of isolated timeouts given to a student did not decrease over time, the severity of a student's behavior did not decrease, there was no indication that students required less time to regain control with each subsequent timeout, and there was no relationship between the assigned consequences and the length of time before a student's next major incident. Therefore, the results of this study suggest that isolated timeouts are not an effective intervention for the majority of students with severe emotional disability attending this therapeutic day school, and are not serving as an effective intervention because there is no likelihood that future undesirable behaviors will decrease.

Costenbader and Reading-Brown (1995) were similarly focused on factors related to students spending significant timeout of the classroom without instruction as a result of the application of timeouts, and the current results support their findings. Overall, in this study, 1,150 timeouts were issued to the 99 students. Of the timeouts issued, 92 of them exceeded 3 hours in duration. Although the school studied here, as discussed later, requires schoolwork to be completed during the timeout, the data suggests an alarming number of minutes spent outside of the classroom. It also highlights the challenge classroom teachers have in managing and educating children

with serious emotional and behavioral needs. Nonetheless, this has implications for academic progress, the possibility for secondary gain or reinforcement to occur, and social skill development. In regards to academic progress, for example, a student may become more frustrated with what they perceive to be an 'impossible' assignment, and a salient antecedent in the behavioral pathway to escalating inappropriate behaviors is formed (Horner, 1994). A thorough functional behavior assessment may highlight the contributions that the student's academic frustration is having on their classroom behavioral functioning (Scott, 2007). Here the first intervention should focus on appropriate academic instruction. It is noted that many other, non-academic, triggers may lead to escalating inappropriate behaviors for students identified with an emotional disability. Internal factors associated with severe Attention Deficit Hyperactivity Disorder or Bipolar Disorder, underdeveloped coping skills, or social skill delays all may contribute to behavioral problems in the classroom. Nonetheless, those students frequently earning timeouts are predisposed to becoming secondarily reinforced by the timeout itself.

One to one attention, removal from what is perceived as an impossible academic assignment, and negative peer attention or reinforcement are examples of secondary reinforcement. The school studied here implemented a process by which the student was required to complete academic work without disruption during the timeout to demonstrate their readiness for integrating back into the classroom. This eliminates an important possibility for secondary reinforcement, and likely prevents many more timeouts from happening, an important component to a positive behavioral support

intervention (Scott, 2007). In addition, the students in this study continued to participate in the behavior management system. The potential for reinforcement or response cost practices during the timeouts provides a continual reinforcement schedule that may provide the motivation needed for the student to learn the skill being taught or reviewed. The opportunity for coping skill instruction and behavioral reinforcement during the timeout reveals the complexity to the timeout process, and highlights why identifying the timeout as a form of 'punishment' is an oversimplification of the matter.

In regards to social skills, those students earning a high frequency of timeouts are likely missing out from social skill opportunities, and are becoming increasingly alienated from the classroom. An additional concern is the fact that the timeouts failed to act as deterrents to future maladaptive behavior. This suggests that the students were not learning a more adaptive skill, or that the environment was not conducive to the student demonstrating the appropriate coping skill. In the end, fewer opportunities were available to the student to learn from modeling, or implementing social skills due to their absence from the class.

Students with severe behavioral disabilities require a complex combination of interventions to improve their behaviors and coping skills. While exhaustive attempts to find ways to manage disruptive behaviors within the classroom are essential, the impact of the disruptions will still likely require incidences of removal from the classroom. Much of the research summarized earlier examined isolated timeouts without ongoing academic instruction and with a structured withholding of adult interactions. Future research might explore how best to intervene with students when these classroom

removal events occur. Is there a therapeutic sequence, e.g., problem solving process, targeted and/or individualized social or coping skill sequence, that could be implemented when a student is removed from the classroom and emotional arousal de-escalated that could improve behavior and reduce the incidence of classroom removals. Is there a therapeutic way of structuring re-entry into the classroom that would prove beneficial? For example, if in some cases, academic frustration is the trigger to behaviors that lead to classroom removal could teacher time be structured to permit a re-entry intervention involving the student, teacher, and therapist? Practical difficulties abound. If two teachers per classroom were affordable for this severe target population, this might be achievable. The Boys' Town Model utilizes acceptance and earnback strategies to influence behavior, are there specific de-escalation strategies or cognitive-behavioral intervention strategies that might be paired with timeouts to make them effective.

The trend in this data toward higher numbers of timeouts during the last trimester would be worth examining further. Is this a more stressful time of the year for some reason or are there more classroom removals because classroom staff tolerance for disruptive behaviors has worn thin or is it impacted by predictably higher classroom sizes as the year progresses and there are more referrals to therapeutic day schools.

It seems clear that thinking of timeouts as punishers is insufficient for change. This school site for this data collection considered timeouts as an intervention except in the circumstances in which they are used in lieu of suspension or expulsion. The school reports that students progress up their behavioral level system and students do progress toward integration. It would be important to examine individual case study data on what

intervention factors are critical to the progress of students who at one time had many classroom removals but eventually have none. Therefore, the focus surrounds refining the intervention and determining what clinical and academic interventions would be most constructive during the classroom removal.

The educational diagnostic term of “emotional disability” is too broad to be descriptive. Are there different factors that would be helpful in response to disruptive behaviors and in response to classroom removals for students with autism compared to oppositional defiant disorder to bipolar disorder to anxiety disorders and so forth? If timeouts will be utilized, do the therapeutic responses within them and the structure of their implementation need to be different for different kinds of presenting symptoms in students?

The paucity of previous research on the use of timeouts prevents further content-specific integration of the research. A brief examination of punitive or exclusionary school discipline practices shows parallel concerns when compared with the use of timeouts. For example, Fenning et al (2007) determined that administrators of regular education school buildings spent a great deal of time managing discipline issues in a primarily reactive and punitive fashion. This study goes on to suggest that it is incompatible to have exclusionary consequences inherent in written discipline policies while concomitantly attempting to implement positive behavioral supports (Scott, 2007). In addition, suspension and expulsion practices were deemed ineffective practices. High rates of suspension and expulsion are predictors of student failure and drop out, and has a significant correlation with overall school achievement gains (Skiba & Rausch, 2006).

Despite their ineffectiveness, the frequency in use of suspensions and expulsions has doubled in the past decade as compared to the 1970s (U.S. Department of Education, 2000). However, it is important to note that the use of timeouts in lieu of suspension at the therapeutic day school studied may be a preferable alternative because opportunities for learning, supervision, and therapeutic rapport building can continue.

Implications

This study can help to better inform practice and treatment plans in therapeutic day schools. First, this research was designed to help the therapeutic day school evaluate the efficacy of isolated timeouts. The data and evaluation results can be used in evidenced-based decisions about future practice. Student progress needs to be regularly monitored in order to insure that the student is benefitting from an intervention. Monitoring students' progress or evaluating the data to determine an intervention's impact is an integral step within a four-step framework for implementing effective instructional practices (Scott, McIntyre, Liaupsin, Nelson, Conroy, & Payne, 2005). Specifically, the fourth step in this Positive Behavior Support framework involves the collection of data to evaluate instruction. In a therapeutic day school such as the one studied here, instruction in coping skills is equally as important as academic skills. This data suggests that the timeout protocol needs to be reconsidered to better serve the students with emotional and behavioral needs. The data can provide a baseline for comparison with future potential changes in order to facilitate evaluation of intervention effectiveness.

Secondly, the Individuals with Disabilities in Education Act was reauthorized in 2004, leading to changes in the approaches schools used to determine eligibility for special education services and the interventions implemented in schools (IDEA, 2004). Instead, schools need to incorporate differentiated instructional strategies for all learners, providing all learners with scientific, research-based interventions, continuously measuring student performance using scientifically research-based progress monitoring instruments for all learners and making educational decisions based on a student's response to interventions (Fuchs & Fuchs, 2006). Therefore, only evidenced-based interventions should be implemented in schools. It is important to note that there is limited research for students categorized as the most severe emotionally disabled.

Additionally, students with behavioral and emotional disabilities have maladaptive social behaviors. They often lack the skills for engaging in more appropriate behaviors and therefore it is especially important to provide them with positive social opportunities. However, when they are in a timeout situation, these students may have decreased exposure to alternative or replacement behaviors to help them learn more effective and adaptive ways to gain attention from teachers and peers. Therefore, many researchers (Betz, 1994; Gast & Nelson, 1977; Turner & Watson, 1999; Wolf et al., 2006) argue that it is important to return them to the classroom environment as promptly as possible so that they may have those opportunities to engage in appropriate behaviors in the classroom. Yet, the key is to return students when they are prepared for re-entry so that there is an effective re-entry process. Therefore, if structured appropriately, a student

can be provided with the necessary exposure and training (e.g., a staff member preparing student for re-encountering teacher he is mad at; a therapist discussing alternative ways to manage frustration; or a student participating in a conflict resolution conference with peer before returning to class).

Classroom management techniques, as well as individual student behavior interventions, should maintain a constructive focus that results in an effective and positive educational environment. Greater consideration should be given to the array of positive interventions that can maximize student learning and assist in the acquisition of replacement behaviors (Ryan et al., 2007). Positive behavioral supports (PBS) are based on a problem-solving model and aims to prevent inappropriate behavior through teaching and reinforcing appropriate behaviors. It is important to use data on a prevention-oriented basis to develop and then direct teacher expectations to students on a universal basis, followed by more targeted and individual interventions for students who continue to show evidence, based on, that demonstrate the need for greater support (Sugai & Horner, 2007). PBS offers a range of interventions that are systematically applied to students based on their demonstrated level of need, and addresses the role of the environment as it applies to development and improvement of behavior problems. (OSEP Technical Assistance Center on Positive Behavioral Interventions & Supports, 2007). PBS could be used on a prevention-oriented basis in the classroom. Recent research suggests that effective instructional practices are able to reduce or prevent the frequency of inappropriate behaviors (Brestan & Eyberg, 1998; Tolan & Guerra, 1994). As opposed to increasing the length of time engaged in a timeout intervention, which this

research suggests is ineffective, students would benefit from increasing the positive behavioral supports available to the students.

This is not to suggest that timeouts should not be used. There is a practical matter in that a disruptive student needs to be removed at times with the goal of preserving an environment conducive to learning as well as maintaining the safety of staff and students (Skiba & Rausch, 2006). What may be called for is that if timeouts are not effective, to utilize the data available to change the manner in which the timeout is delivered or the process that occurs during the timeout. For example, a depressed student showing irritable defiance may be given modular cognitive-behavioral strategies training during the timeout (Reinecke et al, 2006). In addition, the timeouts may serve a deterrent function for those students who witness the behavior and pending consequence (Ewing, 2000). While it is difficult to assess, the timeout issued may help prevent other students from repeating the behavior.

It was discussed earlier in this document that, in particular for those students earning frequent timeout as an intervention, there is an opportunity for secondary reinforcements to inadvertently be delivered. That is to say that one condition within the timeout environment or process becomes reinforcing to the student's negative behavior. At the school studied, schoolwork was required to be completed during the timeout, eliminating avoidance of schoolwork as a possible secondary reinforcer. However, it continues to be important to minimize secondary gain during the timeout period including factors such as receiving additional assistance, additional resources, an adult in close proximity, and supplementary praise at a greater level or rate than they would receive in

the classroom (Ewing, 2000). Based upon observations and the results of this study, it is speculative that the timeout environment at times was more reinforcing than the classroom for some students. In extreme circumstances, for students with the most significant needs, it may be prescribed for them to receive intense individual support because they have demonstrated that they are not ready or prepared to be successful within the classroom setting.

Limitations

The results of the current study must be viewed with caution. All analyses are dependent on the accuracy of records kept by one special education facility. Clearly, with over a thousand incidents, errors in documentation are inevitable; and it is likely that all behaviors of concern were not tracked, with an emphasis on overtly disruptive behaviors versus those more internalizing in nature. Because observations that were incomplete were not included in data analysis, current results may be a minimal estimate of the actual number of behavioral incidents that resulted in timeout over the school year. Finally, it was impossible to take into account days of enrollment and of attendance for the total sample. Students who moved in and out of this placement over the course of the school year are included in all calculations as if they were in attendance every school day. Clearly, this serves to diminish results.

The original database was data by “incident.” In other words, the “incident” was the case. Some students had one “incident,” some had many “incidents.” However, in regards to research question 4, when “incident” was the case, the “incident(s)” from the same student are dependent because the student may have the same pattern for

behavior/incident to occur due to the student's situation. To solve the limitation of this dependence problem, the database should be set up with "students" as the case. In order to look at the correlation(s) between the number of days until the next incident and the duration of the isolated timeout, a future researcher could set up a database in which each student was the case. Then, this researcher could create variables for 'days until next incident' and 'duration of isolated timeout', using the student's first isolated timeout and then the number of days until the second isolated timeout. This would align the information into the necessary variables to analyze the correlation between them. It is possible that a future researcher may find a smaller effect size by setting up and analyzing the dataset in this manner.

There are many factors that will contribute to a student's responsiveness to timeout interventions, including but not limited to medication trials, chronic and serious mental health issues, family and community factors, and learning disabilities. These confounding factors may contribute to the lack of positive findings for the timeouts. Given the conservative nature of these results, which nonetheless suggest that timeout is ineffective with some students, further investigation of the timeout debate is warranted.

Most students in this study were judged to have emotional and behavioral problems significant enough to warrant placement in a special educational facility 100% of the school day except for approximately 10 percent whom were partially integrated into their home schools for a portion of the school day. The range of behavioral and emotional functioning in the subsample, as well as in the total sample, is less than the range of functioning on these variables in the total population of students nationwide.

Future Directions

Four decades of research concerning the development of emotional and behavioral disorders indicate that such problems often begin in childhood, with early onset tied to a host of negative outcomes including academic underachievement, interpersonal difficulties, family stress, and a difficult transition into the workforce (National Research Council & Institute of Medicine, 2009). However, recently increasing focus has been directed toward tiered models of prevention using a problem-solving framework wherein every student is exposed to primary prevention efforts; however, the focus has been placed on the academic realm and especially oral reading fluency not on the prevention, identification, and interventions for internalizing and externalizing problems for students with severe emotional and behavioral difficulties (Mills et al, 2006). Overall, when working with this population there needs to be further research and implementation of effective interventions especially those that address rehabilitation for these children and adolescents.

Given the certainty that timeouts will continue to be an integral component of therapeutic day schools (Coats, 2006), additional research needs to be completed regarding the character of interventions employed during a timeout. Specifically, researchers can examine the effects and patterns of timeouts longitudinally, while the students attend a consistent program. Also, what type of students and student behaviors are most responsive to timeouts in terms of lessening the future probability that they will occur and/or measuring changes in proactive or expected behaviors. It seems plausible that one school year did not allow for enough time to pass for the intervention to impact

student behavior. Additional data should be collected as to the reason why the student initially earned the timeout and to record what occurred in the process of the timeout. This would allow for an analysis of the intervention that took place in response to a particular trigger. For example, the data collection process may highlight how long it took for the student to become de-escalated emotionally and/or behaviorally, how much time was allocated to coping skill, social skill, or sensory regulation instruction, and then the actual amount of time allocated to completing academic work. In a brief discussion about this process, the complexity of this research becomes obvious, without even taking into account the student's perception of the timeout process. However, by adding this type of information to the data collection process, increased clarification may be achieved.

One outcome of such a database may be providing modular interventions during the timeout intervention. For example, if the trigger for the timeout was irritability associated with depression, cognitive behavioral interventions may be appropriate. If the trigger for the timeout was an underdeveloped coping ability, coping skill instruction may take place. Finally, if the trigger was associated with problem solving skills, a problem-solving unit may be covered during the timeout.

Future research within therapeutic day schools in regards to effective interventions and the factors related to the implementation and use of timeouts for different presenting symptoms, disorders, and disabilities in/of students would be integral in determining the most effective interventions for this population of students whose needs can vary greatly.

Further research could also be completed to determine if there is a significant correlation between frequency of timeouts and achievement. Previous research suggests that there is no relationship (Skiba & Raison, 1990), but this study examined a self-contained classroom within a regular education building. The effects within a therapeutic day school setting should be examined as well.

Minorities have been overrepresented in suspension and expulsion practices in some studies (Skiba & Rausch, 2006). Gathering demographic data on ethnicity would help determine if this same problem exists in the use of timeouts. Furthermore, the author encourages researchers to replicate these findings in a special education setting for emotionally disturbed students in other geographic regions.

Conclusion

In summary, the purpose of this research was to assess whether the use of isolated timeouts affected students' behavior in the course for a school year in one special education therapeutic day school serving students in grades three through eighth with severe emotional disabilities. However, the results of this study indicated that the number of isolated timeouts given to a student did not decrease and the severity of a student's behavior did not decrease. Furthermore, the results showed that there was no indication that students require less time to regain control with each subsequent timeout and that there was no relationship between the duration of a timeout and the length of time before a student's next major incident. Therefore, the results of this study suggest that isolated timeouts are not in and of themselves an effective intervention for the majority of students with severe emotional disability attending this therapeutic day

school. The results of this study demonstrate that timeouts are ineffective with many students and should be utilized as an intervention on a case-by-case basis. All interventions, including timeouts, need to be evaluated to determine their effectiveness and further investigation of the timeout debate is warranted, particularly examining differences in implementation and differences in impact when paired with other specific interventions.

APPENDIX A
INCIDENT REPORT FORM



Appendix A Incident Report Form

Student: _____ Teacher/Therapist: _____
 Date of Incident: _____ Time of entire incident (beginning/ending): _____
 Specific Location: _____ Supervised by: _____
 Staff Involved: _____

Incident involved the use of:

- | | | |
|--|-----------------------|--------------------|
| <input type="checkbox"/> Alternative Learning Site (ALS) | Beginning time: _____ | Ending time: _____ |
| <input type="checkbox"/> Physical Restraint* | Beginning time: _____ | Ending time: _____ |
| <input type="checkbox"/> Isolated Time Out | Beginning time: _____ | Ending time: _____ |

Events leading up to the incident:

Interventions employed prior to incident:

Description of the student's behavior:

Description of any injuries/property damage: _____ Staff/Student Injury Report Form attached

Intervention to be employed in dealing with the behavior in the future:

Log of behavior if physical restraint or isolated timeout:

* If an episode exceeds the time limit (30 minutes for isolated time out, 15 minutes for physical restraint) or episode occurs repeatedly during a 3 hr. period, the team evaluated the students' need for:

- medication nourishment use of restroom alternate strategies (e.g. police assistance, medical assistance, etc.)

After team evaluation, it was considered appropriate to continue the use of time out/physical restraint.

Parent/Home Contact

Person Contacted _____ Date/Time _____
 Type of Contact _____ Person Making Contact _____

School Official Contact

Person Contacted _____ Date/Time _____

Staff Member(s) Completing Report _____

Date _____

REFERENCES

- Bacon, E. (1990). Using negative consequences effectively. *Academic Therapy*, 25, 599-611.
- Benjamin, R., Mazzarins, H., & Kupfersmid, J. (1983). The effect of time-out (TO) duration on assaultiveness in psychiatrically hospitalized children. *Aggressive Behavior*, 9, 21-27.
- Betz, C. (1994). Beyond time-out: Tips from a teacher. *Young Children*, 49, 10.
- Brestan, E. V. & Eyberg, S. M. (1998). Effective psychosocial treatments of conduct-disordered children and adolescents; 29 years, 82 studies, and 5,272 kids. *Journal of Clinical Psychology*, 27, 180-189.
- Bridge, B., Gallagher, M., Livermon, B., Nusbaum, R., & Bierman, B. (1986). *Coolaid: How to manage seriously disruptive behaviors*. Baltimore, MD: The Children's Guild, Inc.
- Coats, K. I. (2006). *Intensive Kids Intensive Interventions: Designing School Programs For Behaviorally Disordered Children and Youth*. Boca Raton, FL: Universal Publishers.
- Costenbader, V. & Reading-Brown, M. (1995). Isolation Timeout Used with Students with Emotional Disorders. *Exceptional Children*, 61.
- Curtis, M. J. & Stollar, S.A. (2002). Best Practices in System-Level Change. In A. Thomas & J.Grimes (Eds.), *Best Practices in School Psychology IV* (pp.223-234). Bethesda, MD: National Association of School Psychologists.
- Dawson, M. M. (1994). Will the real school psychologist please stand up: Is the past a prologue for the future of school psychology? School reform issues. *School Psychology Review*, 23(4), 601-603.
- Dean, A. J., Duke, S. G., George, M., & Scott, J. (2007). Behavioral Management Leads to Reduction in Aggression in a Child and Adolescent Psychiatric Inpatient Unit. *Journal of the American Academy of Child & Adolescent Psychiatry*, 46(6), 711-720.

- Elliott, S. N., Witt, J. C., Gavin, G., & Peterson, R. (1984). Acceptability of positive and reductive interventions: Factors that influence teachers' decisions. *Journal of School Psychology, 22*, 353–360.
- Ewing, T. S. (1998). Time-Out: Guidelines for Teachers. *National Association of School Psychologists Helping Children at Home and School: Handouts from Your School Psychologist, 355-357*.
- Ewing, T. S. (2000). Time-Out: Guidelines for Teachers. *Behavioral Interventions: creating a safe environment in our schools*, Winter, 28-29.
- Fenning, P., Golomb, S., Gordon, V., Kelly, M., Scheinfeld, R., Banull, C., et al (2007). Written Discipline Policies Used by Administrators: Do We Have Sufficient Tools of the Trade. *Journal of School Violence, 7(2)*, 123-146.
- Freedman, D., Pisani, R., & Purves, R. (2007). *Statistics: Fourth Edition*. Norton, W. W. and Company, Inc.
- Fuchs, D. & Fuchs, L. S. (2004). Introduction to Response to Intervention: What, why, and how valid is it? *Reading Research Quarterly, 41(1)*, 93-99.
- Gast, D. L. & Nelson, C. M. (1977). Legal and Ethical Considerations for the use of Timeout in Special Education Settings. *Journal of Special Education, 11(4)*, 457-467.
- Gresham, F. M. (2005). Methodological Issues in Evaluating Cognitive-Behavioral Treatments for Students With Behavioral Disorders. *Behavioral Disorders, 30(3)*, 213-225.
- Gottfredson, D. (1997). School-based crime prevention. In L.W. Sherman et al. (Eds.), *Preventing crime: What works, what doesn't, what's promising: A report to the United States Congress*. Washington, DC: U.S. Department of Justice, Office of Justice Programs.
- Grskovic, J. A., Hall, A. M., Montgomery, D. J., Vargas, A. U., Zentall, S. S., & Belfiore, P. J. (2004). Reducing Time-Out Assignments for Students with Emotional/Behavioral Disorders in a Self-Contained Classroom. *Journal of Behavioral Education, 13(1)*, 25-36.
- Harris, K. (1985). Definitional, parametric and procedural considerations in timeout interventions and research. *Exceptional Children, 51*, 279-288.

- Harrington, R. G. (2004). Timeout: Guidelines for Parents and Teachers. *National Association for School Psychologists Helping Children at Home and School II: Handouts for Families and Educators*, S4, 95-98.
- Horner, R. H. (1994). Functional assessment: Contributions and future directions. *Journal of Applied Behavior Analysis*, 27, 401-404.
- Illback, R. J. & Nelson, C. M. (1996). *Emerging School-Based Approaches for Children with Emotional and Behavioral Problems: Research and Practice in Service Integration*. Binghamton, NY: The Haworth Press, Inc.
- Illback, R. J., Zins, J. E., & Maher, C.A. (1999). Program Planning and Evaluation: Principles, Procedures, and Planned Change. In Reynolds, C. R. & Gutkin, T. B. (Ph.D.), *The Handbook of School Psychology: Third Edition*, 907-932. New York: John Wiley & Sons, Inc.
- Illinois Regulations on the Requirements for the Use of Isolated Timeout and Physical Restraint, 23 Illinois Administrative Code 1.280, 1.285.
- Illinois Compiled Statutes, Timeouts and Physical Restraint Rules, School Code 10-20.33.
- Illinois Compiled Statutes, Behavior Intervention, School Code 14-8.05.
- Illinois State Board of Education (n.d.). *Special Education Categories*. Retrieved March 29, 2010, from <http://www.isbe.state.il.us/SPEC-ED/html/categories.htm>.
- Individuals with Disabilities Act Amendments of 2004, 20 U.S.C. 1400 et seq.
- Martin, G. & Pear, J. (2003). *Behavior modification*. Upper Saddle River, NJ: Prentice-Hall.
- Mayer, M., Lochman, J., & Van Acker, R. (2005). Introduction to the Special Issue: Cognitive-Behavioral Interventions With Students With EBD. *Behavioral Disorders*, 30(3), 197-212.
- McGuffin, P. W. (1991). The effect of timeout duration on frequency of aggression in hospitalized children with conduct disorders. *Behavioral Interventions*, 6(4), 279-288.
- Miller, D. E. (1986). The management of misbehavior by seclusion. *Residential Treatment for Children and Youth*, 4, 63-73.

- Mills, C., Stephan, S. H. Moore, E., Weist, M. D., Daly, B. P., & Edwards, M. (2006). The President's New Freedom Commission: Capitalizing on opportunities to advance school-based mental health services. *Clinical Child and Family Psychology Review*, 9, 149-161.
- Munger, R. (2007). *Changing Children's Behavior by Changing the People, Places and Activities in Their Lives*. Boys Town, NE: Boys Town Press.
- National Assessment of Educational Progress (2007). *Accommodations for Students with Special Needs*. Retrieved October 1, 2007, from <http://nces.ed.gov/nationsreportcard/tdw/instruments/accomm.asp>
- National Dissemination Center for Children with Disabilities (2002). *General Information about Disabilities: Disabilities That Qualify Infants, Toddlers, Children, and Youth for Services under the IDEA*. Retrieved September 25, 2007, from <http://www.nichcy.org/pubs/genresc/gr3.htm>
- National Dissemination Center for Children with Disabilities (2004). *Emotional Disturbance*. Retrieved September 25, 2007, from <http://www.nichcy.org/pubs/factshe/fs5txt.htm>
- National Dissemination Center for Children with Disabilities (NICHCY). (2007). "Effectiveness of Cognitive-Behavioral Therapy in Reducing Classroom Disruptive Behaviors: A Meta-Analysis" (Ghafoori, B., & Tracz, S. M., 2001). Retrieved September 16, 2007, from <http://research.nichcy.org/MetaAnalysis.asp?ID=101>
- National Dissemination Center for Children with Disabilities (NICHCY). (2007). "The Effects of School-Based Intervention Programs on Aggressive Behavior: A Meta-Analysis" (Wilson, S. J., Lipsey, M., & Derzon, J. H., 2003). Retrieved October 1, 2007, from <http://research.nichcy.org/MetaAnalysis.asp?ID=58>
- National Research Council and Institute of Medicine (2009). *Preventing Mental, Emotional and Behavioral Disorders Among Young People: Progress and Possibilities*. Committee on the Prevention of Mental Disorders and Substance Abuse Among Children, Youth, and Young Adults: Research Advances and Promising Interventions. Mary Ellen O'Connell, Thomas Boat, and Kenneth E. Warner, Editors. Board on Children, Youth, and Families, Division of Behavioral and Social Sciences and Education. Washington, DC: The National Academies Press.
- Nelson, C. M., & Rutherford, R. B., (1983). Timeout revisited: Guidelines for its use in special education. *Exceptional Education Quarterly*, 3, 56-67.

- OSEP Technical Assistance Center on Positive Behavioral Interventions & Supports. (2007). Retrieved July 1, 2007 from <http://www.pbis.org/schoolwide.htm>.
- Polsgrove, L. (1991). *Reducing Undesirable Behaviors*. Reston, VA: The Council for Exceptional Children.
- Phillips, V., Boysen, T. C., & Schuster, S. A. (1997, March). Psychology's Role in Statewide Education Reform: Kentucky as an Example. *American Psychologist*, 52(3):250-255.
- Pucci, A. R. (2005). *Evidence-Based Counseling & Psychotherapy*. Retrieved September 16, 2007, from <http://www.nacbt.org/evidenced-based-therapy.htm>.
- Ryan, J. B., Peterson, R. L., & Rozalski, M. (2007). State Policies Concerning the Use of Seclusion Timeout in Schools. *Education and Treatment of Children*. Retrieved March 31, 2010, from www.questia.com/reader/print/Paginator/299.
- Ryan, J. B., Peterson, R. L., Tetreault, G., & van der Hagen, E. (2007). Reducing Seclusion Timeout and Restraint Procedures With At-Risk Youth. *Journal of At-Risk Issues*, 13(1), 7-12.
- Ryan, J. B., Sanders, S., Katsiyannis, A. & Yell, M. L. (2007). Using timeout effectively in the classroom. *Teaching Exceptional Children*, 39(4), 60-67.
- Reinecke, M., Dattilio, F., Freeman, A., Lopez, C., Beck, A. T., Parra, G. (2006). *Cognitive Therapy with Children and Adolescents*. New York, NY: Guilford Press.
- Reschly, D. J & Ysseldyke, J. E. (2002). Paradigm shift: The past is not the future. In Thomas, A. & Grimes, J. (Eds.), *Best Practices in School Psychology IV* (pp. 3-20). Washington, DC: National Association of School Psychologists.
- Robinson, R. T., Smith, S.W., & Brownell, M. T. (1999). Cognitive Behavior Modification of Hyperactivity-Impulsivity and Aggression: A Meta-Analysis of School-Based Studies. *Journal of Educational Psychology*, 91(2), 195-203.
- Scott, T. M., McIntyre, J., Liaupsin, C., Nelson, C. M., Conroy, M., & Payne, L. (2005). An Examination of the Relation Between Functional Behavior Assessment and Selected Intervention Strategies with School-Based Teams. *Journal of Positive Behavior Interventions*, 7(4), 205-215.
- Skiba, R. & Raison, J. (1990). *Relationship between the use of timeout and academic achievement*. *Exceptional Children*, 57, 36-46.

- Skiba, R. & Rausch, M. K. (2006). Zero Tolerance, Suspension, and Expulsion: Questions of Equity and Effectiveness. In C. M. Evertson & C. S. Weinstein (Eds.), *Handbook of classroom management: Research, practice, and contemporary issues*. (pp. 1063-1092). Mahwah, New Jersey: Lawrence Erlbaum Associates.
- Simonsen, B. & Sugai, G. (2007). Using School-Wide Data Systems to Make Decisions Efficiently and Effectively. *School Psychology Forum, Research in Practice*, 1(2), 46-58.
- Stage, S. A. 1997. A preliminary investigation of the relationship between in-school suspension and the disruptive classroom behavioral of students with Behavioral Disorders. *Behavior Disorders*, 23 (1), 57-76.
- Sugai, G., Horner, R. H., Dunlap, G., Hieneman, M., Lewis, T., Neslon, et al. (2000). Applying positive behavior support and functional behavioral assessment in schools. *Journal of Positive Behavior Interventions*, 2, 131-143.
- Sugai, G. & Lewis, T. (1999). *Developing positive behavioral support for students with challenging behaviors*. Reston, VA: Council for Children with Behavioral Disorders, a Division of CEC.
- Tilly, W. D. (2002). Best practices in school psychology as a problem-solving enterprise. In Thomas, A. & Grimes, J. (Eds.), *Best Practices in School Psychology IV*, 21-36. Washington, DC: National Association of School Psychologists.
- Tobin, T. & Sprague, J. (1999). Alternative Education Programs for At-Risk Youth: Issues, Best Practice, and Recommendations. Oregon School Study Council Bulletin, 42(4).
- Tolan, P. H., & Guerra, N. (1994). *What Works in Reducing Adolescent Violence: An Empirical Review of the Field*. Boulder, CO. Center for the Study and Prevention of Violence, Institute for Behavioral Sciences, University of Colorado, Boulder.
- Turner, H. S. & Watson, T. S. (1999). Consultant's Guide for the Use of Time-out in the Preschool and Elementary Classroom. *Psychology in the Schools* 36(2): 135-150.
- U.S. Department of Education, National Center for Education Statistics (2006). *Common Core of Data: Public School Data 2005-2006 School Year*. Retrieved September 25, 2007, from <http://nces.ed.gov/ccd/index.asp>
- U.S. Department of Education, National Center for Education Statistics (2006). *Digest of Education Statistics, 2005* (NCES 2006-030), Table 50. Retrieved September 25, 2007, from http://nces.ed.gov/programs/digest/d05/tables/dt05_050.asp

- U. S. Department of Health and Human Services. (2001, January 3). *Report of the Surgeon General's Conference on Children's Mental Health: A National Action Agenda*. Washington, D.C.: Department of Health and Human Services, 2000. Retrieved July 1, 2005, from <http://www.hhs.gov/surgeongeneral/topics/cmh/childreport.htm>
- Weist, M. D. Rubin, M., Moore, E., Adelsheim, S., & Wrobel, G. (2007). Mental Health Screening in Schools. *Journal of School Health*, 77(2), 53-58.
- Wolf, T. L., McLaughlin, T. F., & Williams, T. F. (2006). Time-out interventions and strategies: A brief review and recommendations. *International Journal of Special Education*, 21(3), 22-28.

VITA

Kathryn Ridgley was born and raised in Columbus, Ohio. She attended DePauw University in Greencastle, Indiana for two years before transferring to the University of Michigan, Ann Arbor, where she earned a Bachelor of Arts in Psychology in 1996. She was selected to be a member of Psi Chi, The National Honor Society in Psychology, based upon her overall and psychology GPA and high standards of personal behavior.

From 1999 to 2002, Kathryn attended the Loyola University Chicago, where she received a Master of Education in Educational Psychology and became a certified school psychologist. Kathryn continued her studies at Loyola University Chicago in the Doctorate of Philosophy program in School Psychology. Given her strong clinical interest, she minored in Mental Health in the Schools and has received clinical supervision during her clerkships and internships. Throughout her program of studies she had unique practicum, clerkship, internship, and employment experiences which gave her the opportunity to work with students of varying ages and needs from diverse socioeconomic and cultural backgrounds in Chicago and its surrounding suburbs.

Kathryn continues to live in Chicago, Illinois and is employed as a school psychologist in a nearby district.

