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The Summer Treatment Program's Effect on Behaviorally Challenged Orthodox Jewish Children

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Walden University

College of Social and Behavioral Sciences

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Dovid Rudomin

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Walden University
2020

Abstract

The Summer Treatment Program's Effect on Behaviorally Challenged Orthodox Jewish
Children

by

Dovid Rudomin

Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Philosophy

Clinical Psychology

Walden University

August 2020

Abstract

The Summer Treatment Program (STP) is an 8-week, research-based, behavior modification approach utilizing a unique point system that has been shown to improve the noncompliant behavior of children in a day camp setting. Due to religious reasons, the children of the Orthodox Jewish (OJ) community are unable to attend the original STP. Guided by behaviorism, the purpose of this research study was to assess whether a faith-based STP is effective in improving the noncompliant behavior of OJ behaviorally challenged children. In this study, the relationship between the completion of the STP and the behaviors of hyperactivity, aggression, conduct, anxiety, attention, conduct, adaptability, and functional communication, as measured by the Behavior Assessment for Children 3rd edition of the OJ children, were assessed. Archival data from a sample of 40 children were gathered through an ex post facto repeated measures design and analyzed using a 2 x 2 repeated measures mixed factorial ANOVA to show the difference in scores from pre- to posttest. The results showed there was a significant decrease from pre- to posttest in the behaviors of hyperactivity, aggression, conduct, attention, and adaptability. There was no significant improvement from pre- to posttest in the areas of anxiety and functional communication. These results show the STP was effective in improving a wide range of behaviors. Future researchers can study the long-term impact for the children of OJ community attending the STP. This research study contributes to positive social change by supplying empirical evidence that a faith-based STP is a highly effective method for treating behaviorally challenged children of the OJ community.

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Dedication

This dissertation is dedicated to my wonderful wife and children. My wife, Sarah, has been so supportive throughout this journey and has been a great in-house editor as well. I would not have accomplished this without her. I want to say thank you to my lovely children, Yocheved, Moishy, Rikki, Aharon, Avromi, and Shmuel, for being such wonderful human beings. Thank you Hashem.

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Chapter 1: Introduction to the Study

Noncompliant behavior is a leading cause for parents requesting behavioral or mental health services for their children (Lipschultz & Wilder, 2017). The summer treatment program (STP) is a research-based treatment program that has shown to reduce noncompliant behaviors (Pelham et al., 2005). The STP is an 8-week program that takes place in a summer day camp setting that is transitioned into a lab type environment where the children receive immediate responses and input regarding their behavior through a point system (Pelham et al., 2005). The point system is composed of receiving points for appropriate behaviors and losing points and receiving consequences for inappropriate behaviors (Pelham et al., 2005). The points are earned in exchange for the privilege of attending weekly field trips (Pelham et al., 2005).

The extant research on the STP is limited to children who do not belong to the Orthodox Jewish (OJ) community. The children of the OJ community typically do not attend school or summer programs with children from other communities due to religious obligations, such as dietary restrictions and Jewish prayer (i.e., davening) services (Katzenstein & Fontes, 2017). Additionally, OJ boys and girls are kept separate and do not attend the same school or camp (Elizur, Somech, & Vinokur, 2017).

In this study, I focused on a STP of all male children from the OJ community who struggle with noncompliant behavior and analyzed the areas of aggression, anxiety, hyperactivity, inattentiveness, conduct, adaptability, and functional communication. Archival data comprising the Behavior Assessment System for Children, Third Edition (BASC-3) as a pre- and posttest were used in this study. The findings of the study

showed an effective behavior modification method that could be used to reduce the noncompliant behaviors of boys in the OJ community.

In this chapter, the background of the study is presented as well as the nature of the study, problem and purpose statement, research questions and hypothesis, theoretical framework, assumptions, limitations, delimitations, significance of the study, and the social change aspect of the study. I conclude with a review of the topics in a manner that help transition to the next chapter of the literature review.

Background of the Study

The STP is a behavior modification method to improve the behaviors of behaviorally challenged children (Pelham et al., 2000). The method was originally created and designed to treat children with attention deficit hyperactivity disorder (ADHD) exclusively (Pelham et al., 2000). The STP was shown to be effective with children and adolescents diagnosed with ADHD (Pelham et al., 2000; Sibley et al., 2012). The STP was also shown to help children with autism spectrum disorders improve social skills (Mitchell et al., 2015). Additionally, the STP was shown to help improve the behaviors of preschool children and aiding their ability to be ready to attend school (Graziano et al., 2014).

The STP uses the behavioral modification methods of antecedent-based strategies, consequence-based methods, positive reinforcement, and parent training as part of the treatment program (Pelham et al., 2000; Sibley et al., 2012). When transitioning from activity to activity, activity rules are reviewed by the counselors with the children before each transition (Pelham et al., 2000; Sibley et al., 2012). Radley and Dart (2016) showed

effective commands, rule setting, and clear instruction are antecedent-based strategies that are effective in diminishing noncompliant behavior. Lipschultz and Wilder (2017) demonstrated that consequence-based methods, such as time-outs and consequences, were shown to reduce noncompliant behavior. Honeycutt et al. (2015) found that positive reinforcement is effective in influencing a child to display more compliant behavior.

Nature of the Study

In this study, I employed a quantitative approach using a nonexperimental, within-group, repeated measures ex post facto design (see Frankfort-Nachmias, Nachmias, & DeWaard, 2014). Quantitative studies examine the relationship between a previous independent variable and the dependent variables (Creswell, 2009). A pretest was administered to evaluate the children's behaviors before they entered the STP and a posttest was used to evaluate the children's behaviors after they attended the STP.

Research Questions and Hypotheses

RQ: What is the relationship between the completion of the STP and hyperactivity, aggression, conduct, anxiety, attention, conduct, adaptability, and functional communication in behaviorally challenged OJ children?

H_01 : There is no statistically significant decrease in hyperactivity between the participants' test scores across time (i.e., pre- to posttest) and between group (i.e., summer 2017 versus summer 2018) or the interaction of group by time in behaviorally challenged OJ children attending the STP.

H_a1 : There is a statistically significant decrease in hyperactivity between the participants' test scores across time (i.e., pre- to posttest) and between group (i.e.,

summer 2017 versus summer 2018) or the interaction of group by time in behaviorally challenged OJ children attending the STP.

H₀2: There is no statistically significant decrease in aggression between the participants' test scores across time (i.e., pre- to posttest) and between group (i.e., summer 2017 versus summer 2018) or the interaction of group by time in behaviorally challenged OJ children attending the STP.

H_a2: There is a statistically significant decrease in aggression between the participants' test scores across time (i.e., pre- to posttest) and between group (i.e., summer 2017 versus summer 2018) or the interaction of group by time in behaviorally challenged OJ children attending the STP.

H₀3: There is no statistically significant decrease in conduct between the participants' test scores across time (i.e., pre- to posttest) and between group (i.e., summer 2017 versus summer 2018) or the interaction of group by time in behaviorally challenged OJ children attending the STP.

H_a3: There is a statistically significant decrease in conduct between the participants' test scores across time (i.e., pre- to posttest) and between group (i.e., summer 2017 versus summer 2018) or the interaction of group by time in behaviorally challenged OJ children attending the STP.

H₀4: There is no statistically significant decrease in anxiety between the participants' test scores across time (i.e., pre- to posttest) and between group (i.e., summer 2017 versus summer 2018) or the interaction of group by time in behaviorally challenged OJ children attending the STP.

H_a4: There is a statistically significant decrease in anxiety between the participants' test scores across time (i.e., pre- to posttest) and between group (i.e., summer 2017 versus summer 2018) or the interaction of group by time in behaviorally challenged OJ children attending the STP.

H₀5: There is no statistically significant decrease in attention between the participants' test scores across time (i.e., pre- to posttest) and between group (i.e., summer 2017 versus summer 2018) or the interaction of group by time in behaviorally challenged OJ children attending the STP.

H_a5: There is a statistically significant decrease in attention between the participants' test scores across time (i.e., pre- to posttest) and between group (summer 2017 versus summer 2018) or the interaction of group by time in behaviorally challenged OJ children attending the STP.

H₀6: There is no statistically significant increase in adaptability between the participants' test scores across time (i.e., pre- to posttest) and between group (i.e., summer 2017 versus summer 2018) or the interaction of group by time in behaviorally challenged OJ children attending the STP.

H_a6: There is a statistically significant increase in adaptability between the participants' test scores across time (i.e., pre- to posttest) and between group (i.e., summer 2017 versus summer 2018) or the interaction of group by time in behaviorally challenged OJ children attending the STP.

H₀7: There is no statistically significant increase in functional communication between the participants' test scores across time (i.e., pre- to posttest) and

between group (i.e., summer 2017 versus summer 2018) or the interaction of group by time in behaviorally challenged OJ children attending the STP.

H_{a7}: There is a statistically significant increase in functional communication between the participants' test scores across time (i.e., pre- to posttest) and between group (i.e., summer 2017 versus summer 2018) or the interaction of group by time in behaviorally challenged OJ children attending the STP.

Problem Statement

The noncompliant behavior of a child can be characterized as not properly responding to requests that are made by a parent or authority figure (Lipschultz & Wilder, 2017). Complying with adult requests is a keystone behavior in children and is associated with socially appropriate behavior (Radley & Dart, 2016). A child that is persistently noncompliant is at greater risk for developing a psychiatric disorder later on in life (Lipschultz & Wilder, 2017). A child's noncompliant behavior has been identified as a leading cause for parents requesting behavioral or mental health services for their children (Lipschultz & Wilder, 2017).

The STP is a researched-based program that helps improve the behaviors of behaviorally challenged children through a comprehensive behavior modification method comprising a combination of antecedent- and consequence- based methods, positive reinforcement, and reward/response cost system (Pelham et al., 2000). Researchers have established that the STP is effective in improving the behavior symptoms in behaviorally challenged children (Sibley et al., 2012). The OJ community in general keep their children separate from children of other populations (Katzenstein & Fontes, 2017). The

basis for keeping their children in an isolated environment is rooted in the OJ population's observance of the laws of Judaism (Katzenstein & Fontes, 2017). In Judaism, there are different levels of observance. Orthodox Jews strictly follow the Torah (i.e., Old Testament) and the Oral Law, which delineates the laws of the Torah (Katzenstein & Fontes, 2017). Some of the common laws are related to dietary restrictions, only eating kosher food, as well as religious practices (Huppert, Siev, & Kushner, 2007). A mandatory religious practice is praying (i.e., davening) only from a Jewish prayer book, siddur, which is written in the Hebrew language (Katzenstein & Fontes, 2017). The religious laws create a cultural difference that leads OJ parents to send their children only to environments that strictly follow their religious practices (Katzenstein & Fontes, 2017).

Behaviorally challenged children of the OJ community are unable to attend the original STP because it does not follow their religious practices. The STP for the OJ community was adjusted to accommodate OJ practices. For example, there was time set aside for religious prayer and Torah learning as well as only serving kosher food. There is no extant research that shows the STP is effective in treating OJ children.

Purpose Statement

The purpose of this research was to study whether the STP is effective in improving the noncompliant behavior of OJ behaviorally challenged children. The independent variable was the STP. The dependent variable was the noncompliant behavior of OJ children; this variable was studied to see if it is was decreased by the

independent variable. The participants were OJ children who displayed noncompliant behavior.

Theoretical Foundation

The basic theoretical framework for this study was behaviorism. According to the theory of behaviorism, an individual's behavior is an outcome of the response to stimuli in their environment (Watson, 1958). The history of the stimuli that exists in the environment, including reinforcement and consequences together with the individual's motivation, directly influence an individual's behavior (Watson, 1958). Behaviorism emphasizes environmental factors as the primary factors that influence human behavior (Watson, 1958).

Definition of Terms

Antecedent-based strategies: Evidence-based and proactive strategies designed to reduce the occurrence of interfering, or problematic, behavior (Conroy et al., 2005).

Consequence-based methods: The effect of an incident, event, or occurrence on the mental or emotional state of individuals or groups resulting in a change in perception and/or behavior (Barkley, 2013).

Davening: Reciting the prescribed Jewish prayers (Heilman, 1982).

Kosher: Foods that conform to the dietary regulations of Jewish dietary law (Lansdown, 2017).

Operant conditioning: The use of reinforcement and punishment to strengthen or weaken a behavior (Skinner, 1963).

Point system: A numerical system in which the children gain points for appropriate behavior, impulse control, and social skills and lose points for noncompliant behavior (Reichmann, 2013).

Positive reinforcement: When a desirable event or stimulus is presented as a consequence of a behavior and the behavior increases (Barkley, 2013).

Limitations

One of the limitations of this study was that all the research participants were only from the OJ community. The uniqueness of this study is that it is being done on participants from the OJ community, which creates a limitation. Another limitation was that all participants were males. The above limitations hinder the ability to generalize the results to other children.

From a validity perspective, there was no experimental group in this study. A lack of an experimental group limits the internal validity of the study. Another limitation of the study was that the archival data were provided by the parents of the children who have the most knowledge of their children's behaviors.

Scope and Delimitations

I used archival data to gather information on the effectiveness of the program. There were three age groups ranging from ages 6 to 11 years old that participated in the program. The data were collected over the course of two summers. Data were collected from the results of the BASC-3, which is a valid instrument that provides a comprehensive description of the children's behavior.

Assumptions

I assumed that the only significant difference in the children's environment during the time period in between the pre- and posttest was the STP and there were no other significant changes. Another assumption was that the parents were objective regarding their evaluation of their sons' behavior from before they attended the STP and after. Additionally, I assumed that all the research participants received the same point system instructions from all staff members.

Significance of the Study/Social Change

The significance of this research study is that the behavior modification method of the STP is a highly effective method in treating behaviorally challenged children in the OJ community. The opportunity for there to be a research-based program that is geared to the behaviorally challenged children of the OJ community contributes to a positive social change. When behaviorally challenged children are treated with a research-based method, it gives them a better chance to develop into productive individuals in society. The children will have an easier time complying with commands from their parents and teachers, which can possibly aid in them developing better social and academic skills. It is an original contribution to the field to study the effect the STP has on OJ noncompliant children.

Summary

Noncompliant behavior is a leading cause for parents requesting behavioral or mental health services for their children (Lipschultz & Wilder, 2017). The STP is a research-based treatment program that is shown to reduce noncompliant behaviors (Pelham et al., 2005). The STP uses a point system that provides immediate feedback to

the children for their appropriate and inappropriate behaviors and helps the children improve their behavioral difficulties.

Children of the OJ community have not participated in the previous research of the STP due to religious reasons. In this study, I focused on the effectiveness the STP has on the OJ population. The research addressed the specific areas of aggression, anxiety, inattentiveness, conduct, adaptability, and functional communication. Archival data were used in this study consisting of results from the BASC-3 used to measure the children's behavior.

In Chapter 2, I will provide a review of the previous literature on the STP. The history of behaviorism and operant conditioning will also be presented. Research of the OJ community and the elements related to this study will also be explored. Chapter 3 will contain a synopsis of the research design and methods employed for the statistical analysis. In Chapter 4, I will discuss the results of the experiment, including a delineation of the statistical findings and results. In Chapter 5, a discussion of my interpretation of the results, a conclusion of the study, and directions for future research will be provided.

Chapter 2: Literature Review

Research shows that the STP, which uses a specialized, behavioral point system, improves the noncompliant behaviors of behaviorally challenged children (Sibley et al., 2012). Behaviorally challenged children of the OJ community are unable to attend the original STP because it does not follow their religious practices. The purpose of this study was to determine whether the STP is effective in improving the noncompliant behavior of OJ behaviorally challenged children. The independent variable was the STP, and the dependent variables were the behaviors of OJ children, including aggression, anxiety, conduct, attention, adaptability, and functional communication. The theoretical foundation of this study was behaviorism.

In this chapter, I examine the literature on behaviorism and its development into the concept of operant conditioning. A review of the literature on the STP is presented, including the specific elements of the point system, which is the main tool employed in the STP. The literature on the history of the OJ community, which is fundamental to the dependent variable, is also reviewed. Additionally, I will discuss the specific elements of the dependent variables, including aggression, anxiety, conduct, attention, adaptability, and functional communication.

Literature Search Strategy

I retrieved the articles examined for this literature review from the EBSCO and Google Scholar search engines. In EBSCO, the following databases were used: Academic Search Complete, PsycINFO, PsycARTICLES, PsycCRITIQUES, and PsycEXTRA. Google Scholar is a search engine that compiles information from peer-reviewed

journals, scholarly reviews, and other academic bodies of work. In order to retrieve relevant information from EBSCO and Google Scholar, I searched the following terms and phrases for English language results: *summer treatment program, behaviorism, operant conditioning, behavioral, noncompliance, rewards, consequences, point system, hyperactivity, aggression, anxiety, conduct, adaptability, functional communication, Jew, Judaism, Orthodox Jew, and Orthodox Jewish community*. The databases and search engines were searched for articles published between 1958 and 2019.

Theoretical Framework

Behaviorism

John Watson is the founder of behaviorism and developed the theory from the idea that the primary research method of functionalism, which utilized introspection, was fundamentally flawed (Benjamin, 2007). Watson (1958) recognized the impact of the environment on an individual but strictly focused on the individual's behaviors and not consciousness. Researchers of behaviorism used animals to study the behavior of humans (Watson, 1958). Behaviorism relied on Darwin's theories of evolution in order to validate the concept of generalizing animal behaviors to human behaviors (Skinner, 1974).

Watson developed the stimulus-response interactions of behaviors, where a stimulus evokes a response (Benjamin, 2007). Watson emphasized the importance of external behavior of people and their reactions to given situations rather than the internal and mental state of those people (Benjamin, 2007). In Watson's (1958) opinion, the analysis of behaviors and reactions was the only objective method to gain insight of

human actions. Watson rejected introspective research methods and sought to understand behavior by only measuring observable behaviors.

Watson's ideas have continued to influence the field of psychology today. Behaviorism, according to Watson, was the science of controlling observable behaviors (Benjamin, 2007). In the field of psychology today, behavioral approaches are implemented in order to control children's behaviors (Barkley, 2013).

Watson's (1958) research on behaviorism centered on the concept of having an ability to predict and control behaviors.. The theory of classic conditioning, originated by Pavlov, is foundational to behaviorism (Benjamin, 2007). The theory developed from Pavlov noticing that when dogs would anticipate food, they salivated before the food was even there (Benjamin, 2007). Pavlov studied this phenomena and concluded that if a particular stimulus in the dog's surroundings was present when the dog was given food, then that stimulus could become associated with food and cause salivation on its own (Benjamin, 2007). According to classical conditioning, when a condition stimulus is presented together with an unconditioned stimulus during an initial time period, the organism exhibits a conditioned response to the conditioned stimulus similar to the unconditioned stimulus when the conditioned stimulus is presented alone (Windholz, 1983).

Neobehaviorism differs from behaviorism in that it goes beyond purely predicting behaviors using a stimulus before they occur (Skinner, 1963). Operant conditioning, the theory of Skinner (1974), focuses on the response after the given behavior that reinforces the behavior in the future. Skinner's theory of operant conditioning was built on

Thorndike's theory of the law of effect. The law of effect indicates that human behavior is strongly influenced by previous experiences with external stimuli and less influenced by reasoning (Skinner, 1974).

The theory of operant conditioning emphasizes the importance of reinforcers and punishers (Skinner, 1974). Reinforcement is a response to behavior that causes the given behavior to be more likely to be repeated in the future (Barkley, 2013). There are two forms of reinforcement: positive and negative. Positive reinforcement occurs when an additional stimuli, typically in the form of a reward, is received as a result of the initial given behavior (Skinner, 1974). For example, when a child receives a toy as a reward for a given behavior, it reinforces the behavior to be repeated in the future. Negative reinforcement is when a behavior is strengthened as a result of removing an aversive stimulus (Skinner, 1974). For example, when a child is asked to complete a specific chore and is not held responsible to complete it, the child is negatively reinforced not to complete the chore in the future.

The other fundamental aspect of operant conditioning is punishers. Punishment is when an undesirable response is meted out as a response to a given maladaptive behavior (Skinner, 1974). Punishment can be implemented by either adding an unpleasant stimulus or removing a desirable stimulus with the intention of discouraging a maladaptive behavior (Skinner, 1974). For example, when a child is disruptive in class, he can either be given an assignment or lose some time off recess. Both are intended to discourage the child from disrupting the class in the future.

Skinner (1974) discovered the effectiveness of reinforcers and punishers through experiments with animals. Skinner boxes were used with pigeons who were placed in the box and received a small amount of food each time they pecked at a disk or turned around in a specific direction (Skinner, 1974). The bird had no reason to turn around except for the motivation of receiving food, which reinforced the bird to continue turning in the specific direction as a result of receiving the food. Skinner termed the influence on the bird's behavior, *shaping*. Reinforcement and punishment are the basic ways to shape behavior (Skinner, 1974). Skinner generalized the ability to shape the behavior of animals to human beings as well.

The concept of operant conditioning of the use of rewards and consequences to influence behavior are currently influential methods of creating a structured environment (Barkley, 2013). In current times, discipline methods at home and at school commonly rely on the methods of rewards and consequences to create proper structure (Barkley, 2013).

Summer Treatment Program Overview

The STP is an 8-week program that takes place during the summer (Pelham & Hoza, 1996). The participating children attend the program on weekdays for approximately 8 hours a day (Pelham & Hoza, 1996). Paraprofessional counselors are employed by the program to implement the standard treatment program under the guidance and supervision of psychologists with a postgraduate doctoral degree and licensed clinical social workers (Pelham & Hoza, 1996). The children are placed in groups of children their own age, and these groups remain together throughout the

summer, which allows them to receive treatment in learning how to function as a group (Pelham & Hoza, 1996). Each group spends an hour a day in learning sessions and the behavior modification program focuses on treating the children's behavioral issues in a classroom setting (Pelham & Hoza, 1996). The rest of the day consists of recreational activities that are employed in a group setting (Pelham & Hoza, 1996).

Treatment Goals

- Improve the participating children's social awareness, social skills, and problem-solving skills to help provide the means for them to be socially appropriate with other children.
- Develop the learning skills of the participating children.
- Improve the children's ability to complete instructions and be compliant to adult commands.
- Develop the children's competencies in areas of interpersonal relationships, recreational activities, and other areas related to completing tasks.
- Teaching the parents of children how to maintain and reinforce the positive changes of their children.

Point System

The point system consists of a systematic reward/response cost program where children gain points for appropriate behavior and are deducted points for inappropriate behavior while engaging in activities throughout the day (Pelham & Hoza, 1996). In the STP, points can be earned for:

- following activity rules,

- compliances,
- ignoring negative stimulus,
- answering attention questions,
- good sportsmanship,
- contributing to group discussions,
- helping a peer,
- sharing with a peer, and
- bonus points for not displaying any inappropriate behaviors (Pelham & Hoza, 1996).

Points are lost for behaviors that include:

- not following activity rules,
- intentional aggression,
- unintentional aggression,
- intentional destruction,
- unintentional destruction,
- noncompliance of adult commands,
- stealing,
- verbal abuse,
- interrupting group discussions,
- cursing,
- teasing,
- lying,

- complaining or whining, and
- leaving activity area (Pelham & Hoza, 1996).

The points are earned in exchange for the privilege of weekly field trips (Pelham & Hoza, 1996).

One counselor is solely focused on recording the points on a point sheet, while the other counselors award and deduct points from each child continuously throughout the day (Pelham & Hoza, 1996). The counselors are trained in meting out the points in a reliable manner, and the points are frequently checked to ensure that the points accurately reflect the given child's behavior (Pelham & Hoza, 1996). The children also receive feedback regarding their points at different intervals over the course of the day and receive feedback at the end of the day regarding the point total of each day (Pelham & Hoza, 1996).

Appropriate Commands

Commands that are issued by staff members are done in a direct and firm manner (Pelham & Hoza, 1996). When commands are given in a direct, firm, and brief manner, it has an authoritative feel that improves the likelihood of the children complying with commands (Pelham & Hoza, 1996). Commands are issued without using the word "please" because it can have a connotative impression of imploring the child to follow the command (Pelham & Hoza, 1996).

Positive Reinforcement

In addition to the point system which positively reinforces the children's behavior, positive praise is given to children for behaving appropriately (Pelham & Hoza,

1996). Positive praise is given when a child performs a socially appropriate behavior.

Positive praise is administered in private and at times in front of the other children.

Time Out

Time out is a form of consequence that is employed as an effective intervention to help curb noncompliant behavior (Pelham & Hoza, 1996). In addition to positive reinforcement for socially appropriate behaviors, time out is necessary to employ when socially inappropriate behaviors are displayed. Time out in the STP is when a child sits on the side usually for 5 minutes while his peers are engaged in an enjoyable activity. Behaviors that automatically warrant a time out is intentional aggression, intentional destruction, leaving activity area, and a repeated noncompliance (Pelham & Hoza, 1996).

Sports Skills Training

Many children with ADHD and other behavioral issues have a difficult time staying on task and lack the necessary skills to be a quality sports player (Pelham & Hoza, 1996). The STP provides sports skills training. When the children improve their sports skills it helps improve their self-esteem and improve their ability to make friends with peers (Pelham & Hoza, 1996). One recreational activity on a daily basis focuses on improving the children's sports skills.

Group Discussions

Group discussions are held to help the children with their problem-solving skills (Pelham & Hoza, 1996). When a difficulty comes up regarding something pertaining to the group as a whole, the group problem solves together. During a group discussion, the

problem that is hindering the group is first identified. The children then suggest a manner to solve the problem and are taught how to negotiate in a socially appropriate manner.

Parent Training

The parents are trained in the behavior modification methods that are used in camp and are guided on how to employ them in the home environment. The parent training uses the Barkley (2013) behavior methods for training parents with using a consequence/reward system at home.

History of Summer Treatment Program

The STP was first put into practice in 1980 (Pelham et al., 1996). The Psychology Department at Florida State University employed the STP from 1980 through 1986. It was also utilized at the Western Psychiatric Institute and Clinic at the University of Pittsburgh School of Medicine from 1987 through 1996. The STP has since been conducted at a number of settings in the United States such as in Emory, Vanderbilt, Duke Universities and Long Island Jewish Medical Center. The STP was initially developed to exclusively treat ADHD. Over time, the STP evolved into a program that helped improve children with other behavioral difficulties such as autism and oppositional behavior (Mitchell et al., 2015). The STP has been shown to provide some level of improvement in the behaviors of most of the children who participated in the program (Mitchell et al., 2015; Sibley et al., 2013).

In 1993 the founder of the STP, William Pelham Jr. was awarded the # 1 Model Program by the Section of Clinical Child Psychology of the American Psychological Association (Pelham et al., 1996). Additionally in 2003, the STP won the Innovative

Program of the Year award by the Children and Adults with Attention Deficit Hyperactivity Disorder organization.

Many different studies were conducted regarding different aspects of ADHD in terms of how the ADHD symptoms were impacted as a result of attending the STP (Pelham & Hoza, 1996). The first actual study on the overall effectiveness of the STP was conducted in 1996. Researchers at the Pittsburgh location tracked the behaviors of the children from 1987-1992. The research showed the children attending the camp showed improvement in the areas of aggression, sports skills, defiance/noncompliance, self-esteem, responsibility, social skills, and cooperativeness (O'Connor et al., 2014; Pelham & Hoza, 1996).

After the initial research was conducted, the researchers believed that the STP could be adapted to specific settings and populations (Pelham & Hoza, 1996). The STP was then applied to adolescents with ADHD, preschool age children, and children diagnosed with Autism (Graziano et al., 2014; Sibley et al., 2011; Mitchell et al., 2015). The STP was also adapted to be utilized in other countries for a shorter period of time such as in Japan, where it was effective on improving Japanese children diagnosed with ADHD (Okabe et al., 2017; Yamashita et al., 2010). It was also adapted to be employed in settings other than a summer program (Frazier et al., 2012; Pelham et al., 2002; Santucci et al., 2009).

Adolescents with ADHD often present with more defiant behavior toward adults than children with ADHD (Sibley et al., 2013). The STP was adapted for adolescents and was shown to be effective in reducing their defiant tendencies towards adults, as well as

improving their social functioning, mood and well-being, inattention, and academic skills (Sibley et al., 2011; Sibley et al., 2012). The STP also helped reduce the conflict level between the adolescents and their parents (Sibley et al., 2013).

After the STP was shown to improve the symptoms of children with ADHD, it was applied to children with high functioning autism spectrum disorder (HFASD). The results showed that children with HFASD who attended the program for 6 years improved their symptoms (Mitchell et al., 2015). The specific areas of improvement for HFASD were following activity rules, contributing to group discussions, attention skills, and improvement in complaining (Mitchell et al., 2015).

The STP was also adapted and utilized for regular prekindergarten children during the summer between nursery and kindergarten (Graziano et al., 2014). In addition to the behavior modification element of the STP, an age appropriate social/emotional element was added to the program. Self-regulation skills were included along with a focus on defiance, aggression, inattention, and impulsivity. The results showed significant improvement in the children's readiness for school (Graziano et al., 2014).

Additionally, research was conducted using the STP model on children diagnosed with ADHD from other cultures as well. In 2006, the STP was employed outside of the United States in Japan for children with ADHD (Yamashita et al., 2010). The summer break in Japan is a shorter time period of three weeks, which allowed only 3 weeks to utilize the STP. The results showed the STP was effective in improving the areas of oppositional behaviors, hyperactivity, inattention, and conduct problems (Yamashita et al., 2010). However, it did not show improvement in the areas of peer relationship

problems, emotional difficulties, and prosocial behaviors (Yamashita et al., 2010). This may be attributed to the program only being 3 weeks long.

Orthodox Judaism

History and Beliefs

To convey the uniqueness of a child from the Orthodox Jewish community (OJC) and the way it impacts the STP, the article will attempt to define the meaning of a Jew, Judaism, and Orthodox Judaism. The definition of a Jew is highly complex as there are many facets to it. From a legal perspective, a Jew is an individual who was born from a Jewish mother or converted to Judaism through the due process of conversion (Gevirtz, 1980). On a cultural level, Jews are a group of people who share a common history and tradition, and believe they are linked to a common destiny (Gevirtz, 1980). Even without actual religious affiliation or practice a Jew typically recognizes ethics, literature, folkways of Judaism as his or her own (Kertzer, 1996). Jewish traditions revolve around seasonal holidays and daily religious obligations (Kertzer, 1996).

Orthodox Judaism follows a brand of Judaism that is resistant to change (Gevirtz, 1980; Kertzer, 1996). Orthodox Jews believe that the Torah (Bible) was given to Moses on Mount Sinai and none of the Torah laws can be altered due to modern beliefs (Gevirtz, 1980; Kertzer, 1996). An Orthodox Jew dedicates his life to a spiritual lifestyle revolving around studying Torah, prayer, and a daily routine that incorporates many religious obligations (Gevirtz, 1980; Kertzer, 1996). There are many aspects to religious obligations of the OJ faith that will be delineated in this article in regard to their definition, origin, and practical application.

The Torah is the original source for all Jewish history, beliefs, religious obligations, and traditions (Gevirtz, 1980; Kertzer, 1996). The main portion of the Torah consists of the Five Books of Moses from the Bible (Kertzer, 1996). The Torah is more commonly referred to in the world as the Old Testament (Kertzer, 1996). Orthodox Jews believe God gave the Torah to Moses at Mount Sinai. God gave Moses the tablet with the Ten Commandments. The Ten Commandments are foundational to the religious obligations of Orthodox Judaism. The Ten Commandments include, thou shall serve one God and thou shall not kill, steal and commit adultery. The Torah is recognized as the link between God and the Jewish people (Gevirtz, 1980; Kertzer, 1996).

The Five Books of Moses is referred to as the Written Torah. The Written Torah begins with the seven days of creation and continues by expounding on the lives of the Forefathers Abraham, Isaac, and Jacob (Johnson, 1987). The story and history of the Jewish people begins with the Forefathers. Orthodox Jews believe they are direct descendants of the Forefathers and are influenced by their traditions, religious values, and their relationship with God until present day (Johnson, 1987). The Written Torah continues the story of the Jewish people through the Exodus from Egypt, the Jews receiving of the Torah from God via Moses, through the trek in the Wilderness, and all the way through the time they were about to enter the land of Israel when Moses passed away (Johnson, 1987).

The Written Torah was expounded upon in the Oral Torah, which is the Talmud. The Talmud consists of 63 volumes which is a compilation of Mishnah and Gemara written by Jewish Rabbis during the time period of 200 CE and 500 CE (Kertzer, 1996).

The Talmud is the central source for Jewish religious law and Jewish Theology (Gevirtz, 1980; Kertzer, 1996).

The religious book that strictly delineates the actual religious laws of Orthodox Judaism is the Shulchan Aruch (Gevirtz, 1980; Kertzer, 1996). The Shulchan Aruch was written by Rabbi Joseph Cairo in the 16 century. In Hebrew, a religious law is called a Halacha. Halacha is based on the biblical laws which are referred to as Mitzvot. There are 613 commandments given from the Torah and 7 Rabbinic commandments, which totals 620 (Gevirtz, 1980; Kertzer, 1996). The 613 Mitzvot are divided between 365 negative commandments and 248 positive commandments. Mitzvot are deeds that are performed with the view that they are pleasing in the eyes of G-d. Mitzvot range from spiritual acts connected to the Jewish holidays of Passover and Sukkot to ethical acts such as giving charity and respecting elders (Gevirtz, 1980; Kertzer, 1996). Mitzvot are practiced on an hourly, daily, and yearly basis.

The full delineation all the Mitzvot and Halachot are beyond the scope of this article. The main Mitzvot and Halachot will be elaborated on to give the reader the basic sense of the lifestyle of Orthodox Jews. The children of the OJC grow up in households that follow a lifestyle revolving around Jewish laws and traditions.

Philosophies

Another facet to the lifestyle of Orthodox Judaism are their afterlife beliefs. From a faith perspective, Orthodox Jews believe in an afterlife (Kertzer, 1996). Afterlife is believed to come to fruition in the World to Come (Kertzer, 1996). The Torah teaches that the purpose of this world is to prepare for the World to Come. The World to Come is

a place where the souls exist and reap the spiritual rewards resulting from the good deeds practiced while the individual was alive (Gevirtz, 1980; Kertzer, 1996). When a Jew engages in a Mitzvah a spiritual reward is recorded which is believed to be accounted for and waiting to be meted out in the World to Come (Gevirtz, 1980; Kertzer, 1996). Similarly, when an individual transgresses a law of the Torah, the individual will be held accountable and punished for the sin in the World to Come (Gevirtz, 1980; Kertzer, 1996).

Orthodox Judaism teaches, that the area of Man's work in this world is to make choices. A person has free choice to choose between good and evil. The Torah explains that Man has a Good Inclination (Yetzer Tov) and Evil Inclination (Yetzer Hara). The Yetzer Tov encourages man to do good deeds and develop his relationship with God and the Evil Inclination bates an individual into committing sins and behaviors that distance him from God (Gevirtz, 1980). Man has the power of free choice to choose whether to commit and good deed or a forbidden sin. The consequences of an individual's free choice, is mostly experienced in the World to Come (Gevirtz, 1980).

Traditions

Another aspect of Judaism is their native language of Hebrew. Although many Orthodox Jews do not speak Hebrew, most religious writings are written in Hebrew. Young children of the OJC are taught to learn how to read and understand Hebrew at a young age (Heilman, 1982). The Jewish Prayers are also written in Hebrew (Heilman, 1982).

Hebrew is the native language of Israel. The OJC recognizes Israel as the Jewish homeland (Kertzer, 1996). From a religious perspective, Israel is recognized as the ideal place for a Jew to live. The Jews identify with Israel for the Bible states that Israel belongs to the Jewish people. (Kertzer, 1996) The two previous Temples of God were housed in the capital of Israel, Jerusalem. The Temples are the God's house of worship. Currently, Jewish tradition informs that they are in exile until the coming of the Messiah (Kertzer, 1996). The Messiah will be tasked with unifying all the Jews in the land of Israel and will aid in building the Third and final Temple in Jerusalem (Gevertz, 1980). Until the time of Messiah, Jews live all over the world including the United States. The children of the STP are part of households whose parents all believe that Israel is the land of the Jews.

In current Orthodox Judaism, religious prayers are recited three times daily, in place of the religious offerings that were previously brought three times daily during the first two Temples (Heilman, 1982). After the destruction of the two Temples, the Rabbis instituted that Jewish prayers services are recited three times a day, once in the morning, afternoon, and evening (Heilman, 1982). Each prayer services consists of many different prayers and blessings. Jewish prayers typically take place in a synagogue and are intended to recognize and praise God for the good bestowed upon the world on an individual and global level (Kertzer, 1996). Jewish prayers are also intended to demonstrate and convey their trust in God (Kertzer, 1996).

Additionally, brachos which are another form of blessing are recited before one eats food and after eating food (Kertzer, 1996). A bracha before eating is intended to

thank God for creating the food and the blessing afterward is designed to thank God for providing a meal that satisfied the individual (Kertzer, 1996). The types of food that are permitted to be eaten and those that are not permitted are central to one's diet and nutrition, and are therefore a central component to the lifestyle of Orthodox Jews.

Dietary Laws

In Orthodox Judaism, a food must be deemed as kosher before it is eaten (Lansdown, 2017). Kosher means it is food that fits into a category where it meets all religious obligations (Lansdown, 2017). All natural foods are deemed kosher since they are cultivated by natural sources directly from nature. The main laws of kosher laws apply to food that comes from living organisms (Meyer-Rochow, 2009).

In regard to animals, only animals that chew their cud and have split hooves are kosher (Kertzer, 1996). This excludes animals such as pigs and horses. In terms of fish, they must have fins and scales to be considered kosher. Shrimp, lobsters, and oysters are not kosher (Kertzer, 1996). Fowl is permitted to eat however not birds of prey (Kertzer, 1996).

Additionally, another religious law is that animals must be slaughtered in a specific way. The slaughtering must be done with a sharpened knife that cuts straight through the carotid arteries and jugular veins (Kertzer, 1996). The law is designed to cause the animal no pain during the slaughtering process (Kertzer, 1996). The law of slaughtering excludes hunted animals and carcasses from consumption.

Another very important dietary law is regarding milk and meat. Milk and meat cannot be cooked or eaten together (Kertzer, 1996). Orthodox Jews do not eat

cheeseburgers or in restaurants that make cheeseburgers since milk and meat are cooked together. Orthodox Jews do not eat in fast food restaurants such as McDonald's, Burger King, or Wendy's. All meat and milk products must be certified by a rabbi that they are kosher (Lansdown, 2017). The Rabbinic certification is called a hechsher.

The dietary restrictions also impact the use of flatware. Separate utensils need to be used for milk and meat (Meyer-Rochow, 2009). A typical OJ household has separate flatware and dishes for milk and meat (Meyer-Rochow, 2009). The children of the STP all abide by the above dietary restrictions and maintain a diet abided by the religious requirements.

Spirituality

From a spiritual perspective, Orthodox Jews are required to participate in studying Torah for a set time, on a daily basis (Gevirtz, 1980; Kertzer, 1996). Studying any part of the Torah, including the Bible, Talmud, and Halacha, are recognized as meeting the daily requirement to study Torah (Gevirtz, 1980; Kertzer, 1996). Young children begin learning the Hebrew alphabet and start Torah at a young age at school (Kertzer, 1980). Learning and studying the Talmud begins around the time of adolescence. Studying Torah for a set time is incorporated into the daily routine in the STP. When one studies Torah, it is considered a good deed and one is rewarded for it in the World to Come. Additionally, the purpose of the obligation to study Torah is for an Orthodox Jew to maintain a spiritual connection to God through learning his Torah.

The children of the OJC all attend private Jewish schools, with few exceptions (Elizur et al., 2017). The Orthodox Jewish community has developed scores of private

Jewish schools all over the United States over the last 80 years (Schnall, 2006). Private Orthodox Jewish schools divide their education into two parts. Half of the time is spent on cultivating the children's religious studies, including learning the Hebrew language, Jewish history, reciting prayers, and learning Torah (Elizur et al., 2017). The other half of the day is spent on general studies such as math, science, history, history, and English reading and writing. There are typically a different set of teachers who teach religious studies and another teacher who teaches general studies. The average school day for OJ children is about an average of two hours longer than public school (Elizur et al., 2017).

Another critical component of the spiritual lifestyle of Orthodox Jews is the Sabbath. The Torah commands that just as God rested on the 7th day of creation, so too each Jew must rest on the 7th day of the week (Saturday), of each week (Gevirtz, 1980; Kertzer, 1996). All work-related activities are forbidden on Sabbath (Gevirtz, 1980; Kertzer, 1996). Work related activities include gardening activities, cooking food, utilizing electricity and electronics, and driving a car. They are all forbidden on Sabbath. All food items must be prepared before the Sabbath and kept warm over the Sabbath using various insulating methods (Kertzer, 1996).

Sabbath is not just a time of restriction, it is mainly intended to be a time for spiritual connection and physical enjoyment (Gevirtz, 1980; Kertzer, 1996). Special food delicacies are prepared and quality wine is set aside for Sabbath (Gevirtz, 1980; Kertzer, 1996). The Orthodox Jewish tradition teaches that when one is not busy with work-related activities, he is able to focus on developing his or her spiritual self through learning Torah and Prayer (Gevirtz, 1980; Kertzer, 1996). Sabbath is also intended as a

time for one to bond with family during festive meals and during the extra leisure time allotted as a result of taking a break from work.

In addition to Sabbath, there are Jewish Festivals which are annual seasonal holidays. The holidays are Rosh Hashana, Yom Kippur, Succot, Chanuka, Purim, Passover, and Shavuot (Gevirtz, 1980). The Festivals commemorate momentous occasions of the Jewish people that contributed to the development of the Jews as a nation (Johnson, 1987). The Festivals are also designed to connect spiritually with God and spend time bonding with family in a festive atmosphere (Gevirtz, 1980).

Spending time bonding with family also has a religious component to it as well. The OJ faith has a strong emphasis on the value of tradition and community (Kertzer, 1996). From a religious perspective, the Torah views the Jewish People as a unified nation and is designed for each individual to feel responsible for each other, which highlighted by a strong emphasis of being part of the community. Additionally, the themes of the Jewish festivals is to connect with the experiences of their ancestors and upkeep the same traditions of their ancestors. For example, on Passover, Orthodox Jews celebrate their ancestors leaving Egypt and the holiday focuses on connecting with one's own ancestors and identifying with them (Kertzer, 1996).

There are many specific blessings and rituals that are performed on Sabbath and Festivals during the meals and prayers. Elaborating on all the specific rituals, laws, and restrictions of Sabbath are beyond the scope necessary for this article. All the children attending the STP are from households who observe the Sabbath and Festivals. Besides

for Saturday not being a work day, the STP is also closed on Saturday as a result of it being the day of Sabbath.

Ethics

The Torah provides ethical principles and guidelines that are fundamental to OJ lifestyle. The Torah teaches moral values related to how an individual relates to himself, parents, elders, and friends. The Torah requires every individual to respect his parents (Gevirtz, 1980; Kertzer, 1996). Respecting parents is actually one of the Ten Commandments. The Torah also requires a Jew to care for and help out his fellow Jew (Gevirtz, 1980; Kertzer, 1996). Giving charity on a consistent basis, is also a religious requirement.

On a relational level, there are many socially inappropriate behaviors that are forbidden and if engaged in, is committing a sin. A Jew is forbidden to cause another Jew pain (Kertzer, 1996). Causing another individual emotional or physical pain is a sinful act. Derogatory speech toward another person and slandering another individual are also forbidden (Kertzer, 1996).

There is a volume in the Talmud, Ethics of the Fathers, that is comprised of the ethical and moral teachings passed down from Moses and onwards (Gevirtz, 1980). Ethical and moral teachings in Ethics of the Fathers include; show kindness to others, respect the other person's rights, strive for greatness, respect God, seek peace, be humble, do not leap to judge another person, and patience (Gevirtz, 1980). The OJ children learn in school and at home the teachings of the Ethics of the Fathers. The children of the STP are inundated with the values of the Ethics of the Fathers from their parents and teachers.

Morals

The Torah also delineates moral standards for the OJ population. The Torah defines strict boundaries between men and women (Huppert, et al., 2007). A man is not allowed to touch a woman who is not his wife. A man and woman cannot even shake hands (Huppert, et al., 2007). The Torah instituted strict laws in order to prevent a married man and another married woman from desiring each other which could lead to immorality (Dorff, 2008; Schnall, Pelcovitz, & Fox, 2013). Adultery is one of the sins of the Torah.

As a result of the moral standards, there are separate private schools for OJ boys and girls. Boys and girls are educated by their parents and teachers to socialize with the same gender and to refrain from socializing with the opposite gender. Younger children under the age of 5, typically attend a nursery or playgroup with mixed genders until they reach elementary school age. In general, most boys and girls refrain from developing social and intimate relationships with the opposite gender until they get married (Huppert, et al., 2007).

Another important point to highlight is the age when children have the religious responsibilities of an adult. When a boy turns the age of 13, he becomes Bar Mitzvah and is recognized as a full-fledged adult male (Kertzer, 1996). Alternatively, when a girl turns 12 years old, she is recognized as a full-fledged adult female (Kertzer, 1996). The age of 12 and 13 is selected by the Torah for that is when they each develop their puberty (Katzenstein & Fontes, 2017). Puberty is the physical trait which signifies the body and

mind is developed in a significant enough manner to qualify as an adult in regard to religious obligations (Katzenstein & Fontes, 2017).

On a philosophical level, when a child reaches the age of 12 and 13 respectively, they are deemed to have the ability to reason (Kertzer, 1996). An ability to reason certifies that the individual has the proper capability to make choices that he could be held responsible for. At 12 and 13 respectively, individuals gain the ability for their Good Inclination and Evil Inclination to be on an equal level, which give the ability to have free choice.

Differences of STP for OJ Community

Religious Differences

The specific STP studied in this article, is a faith-based program that is exclusively available to the children of the OJC. Parents of the OJC will only send their children to a place that caters to their religious lifestyle (Schnall, 2006). Also, parents of the OJC typically want to insulate their children from being influenced by members of other societies in order to ensure their children maintain and value their OJ faith and religious lifestyle (Schnall, 2006). The strong sense of identifying with the OJC influences parents to ensure their children mainly interact with children from their own community.

Similarly, the religious aspects of the STP make the program only suitable for children who are from the OJC. The specific differences in the program as a result of religious obligations will be delineated below. Additionally, the religious lifestyle of the OJC may highlight fundamental differences in the general behavior of OJ children, which

likely impacts the way they respond to methods utilized in the STP. The differences in lifestyle and behavior highlight the uniqueness of the STP focused on in this study.

To begin with, all the children in the program are boys. Due to religious reasons, as mentioned above, boys and girls do not attend the same institutions including day camps (Schnall, 2006). Other previous STPs had a mixture of boys and girls, however the STP of this study, only has boys.

In terms of religious activities, the children engage in religious services for approximately a half an hour each morning. A counselor leads the prayers and the children recite the religious prayers while reading from a prayer book. The children earn points for their behaviors for participating in an appropriate manner. There are activity rules set in place during the prayer services and children receive points for following the activity rules and behaving appropriately.

Additionally, approximately fifteen minutes are set aside to learn Torah. Learning sessions utilize the rules of group discussions. A counselor leads the group in a learning session and the children participate similar to a regular discussion. The rules for group discussion are in effect and they receive and lose points accordingly.

Another area where religion impacts the program is regarding dietary restrictions. All the food served in the program is Kosher. Kosher food are the laws mentioned above including not mixing milk and meat (Kertzer, 1996). Kosher food is standard for all the children attending the program and is not something unique to them, however it is unique compared to other STPs. A kosher diet impacts the children's nutrition, which has an impact on their physical well-being and general behavior.

World Views

In addition to the practical differences to the actual daily routine, religion affects the children's perception of the value of the rules. There are some rules of the STP that resemble religious responsibilities. For example, helping a peer is a behavior that earns points. From an OJ perspective, helping a fellow Jew is a religious obligation that earns a spiritual reward (Gevirtz, 1980). Therefore, the child is more likely to value the behavior of helping a peer, which will possibly facilitate the behavior more often.

Religion also impacts antisocial behaviors, such as aggression and destruction. Intentional aggression and intentional destruction, are both a loss of 50 points and automatic timeouts. Children of the OJC are possibly less likely to commit these offenses since the aggression and destruction besides for the loss of points are also forbidden and sinful acts. The religious aspect can possibly impact the children in the opposite manner as well. An oppositional child may resent the responsibilities of religion and act in a defiant manner with the intention of defying the religious element as well.

Also, the point system and idea of earning rewards and punishments for their behaviors may be more familiar in general to the OJ children. The religious obligations are synonymous with reward and punishment. Children who are familiar to the concept of reward and punishment may adapt better to the point system of the STP. Their level of submission to authority due to religious submission may be greater as well, which will make them more likely to respond to the authority of the counselors implementing the rules of the point system. Also, the emphasis on community possibly influences the OJ

children to be motivated to be compliant and respond to the point system in order to be part of the group which can represent the community at large.

From a cultural perspective, Orthodox Jews as a society rarely commit violent crimes. There is a minimal amount of Orthodox Jews in jail compared to other populations (Zakheim, 2011). Those who are in jail are usually incarcerated for monetary reasons, not violent ones (Zakheim, 2011). The lack of violent crimes demonstrates that the adults and therefore children as well are less inclined to violent and antisocial behaviors, which make them more inclined to respond to the structure of the point system implemented in the STP.

Summary

The STP is an effective research-based comprehensive method that creates a lab type environment in a summer day camp setting which has shown to diminish the maladaptive behaviors of behaviorally challenged children. The STP was established and researched in many types of day camp settings, across a wide range of age groups, and spanning a broad range of diagnosis including ADHD and autism spectrum disorder. However, none of the research included participants of the OJC. The OJC is a unique population that lives a religious lifestyle revolving around its OJ beliefs. The OJC have a strong traditional identity and lifestyle which prevents them from sending their children to public school and day camps consisting of mixed cultures. They send their children to OJ private school and private days camps in the summer that cater to their religious lifestyle which includes dietary restrictions, prayer services, and Torah learning sessions. The OJ lifestyle likely has an effect on the general behavioral tendencies of the children

of the community. Therefore, there is a gap in the literature for there is no research showing the STP is effective in treating the behaviorally challenged children of the OJC. The specific behaviors that will be focused on in this study are aggression, anxiety, attention, conduct, adaptability, and functional communication.

A secondary analysis was employed and studied the effect the STP has on the behaviors of the OJ participants. In Chapter 3 I will discuss the research design and methodology employed for statistical analysis of the study. In Chapter 3 I will also describe the secondary data collection and operationalize the specific dependent variables. The I will present the results of the study in Chapter 4 and Chapter 5 will contain a comprehensive discussion of the results, including a conclusion of the study and directions for future research.

Chapter 3: Research Method

The purpose of this research was to examine the effect the STP has on improving the behaviors of behaviorally challenged children from the OJ community. The participants were selected and enrolled in a day camp that implements the STP. I used a secondary analysis of data for this research study. In this chapter, I present the research design and justify the rationale for the research approach. The methodology, data analysis plan, operationalization of the dependent variables, and ethical procedures and considerations will also be described in the chapter.

Research Design and Rationale

In this study, I analyzed the relationship between one independent variable (IV) and multiple dependent variables (DVs). The IV was the STP. The DVs were aggression, anxiety, hyperactivity, attention, conduct, adaptability, and functional communication. A secondary analysis was conducted utilizing archival data gathered from the BASC-3. The specific BASC-3 that was utilized was the Parent Rating Scale for children ages 6 to 11 years old (PRS-C). The BASC-3 PRS-C was administered as a pre- and posttest before and after the STP.

In this archival study, I conducted a quantitative examination employing a within group, nonexperimental, repeated measures, ex post facto design. The administration of the pre- and posttests to the same groups qualifies the study as having a within group, repeated measures design (see Frankfort-Nachmias et al., 2014). The ex post facto design was used to identify the statistically significant relationship between a previously researched IV and the DVs. The design choice was consistent with other research designs

that were used to study the relationship between a previously researched IV and the DVs when using archival data. An ex post facto design is employed when the study is not a true experimental research design (Frankfort-Nachmias et al., 2014). The use of archival data excluded me from interacting with the research participants and kept the study from being a true experimental design. Therefore, an ex post design was an appropriate research design for the study.

Research Questions and Hypotheses

I used a repeated measures, ex post facto design to examine the following RQ and hypotheses:

RQ: What is the relationship between the completion of the STP and hyperactivity, aggression, conduct, anxiety, attention, conduct, adaptability, and functional communication in behaviorally challenged OJ children?

H₀1: There is no statistically significant decrease in hyperactivity between the participants' test scores across time (i.e., pre- to posttest) and between group (i.e., summer 2017 versus summer 2018) or the interaction of group by time in behaviorally challenged OJ children attending the STP.

H_a1: There is a statistically significant decrease in hyperactivity between the participants' test scores across time (i.e., pre- to posttest) and between group (i.e., summer 2017 versus summer 2018) or the interaction of group by time in behaviorally challenged OJ children attending the STP.

H₀2: There is no statistically significant decrease in aggression between the participants' test scores across time (i.e., pre- to posttest) and between group (i.e.,

summer 2017 versus summer 2018) or the interaction of group by time in behaviorally challenged OJ children attending the STP.

H_{a2}: There is a statistically significant decrease in aggression between the participants' test scores across time (i.e., pre- to posttest) and between group (i.e., summer 2017 versus summer 2018) or the interaction of group by time in behaviorally challenged OJ children attending the STP.

H₀₃: There is no statistically significant decrease in conduct between the participants' test scores across time (i.e., pre- to posttest) and between group (i.e., summer 2017 versus summer 2018) or the interaction of group by time in behaviorally challenged OJ children attending the STP.

H_{a3}: There is a statistically significant decrease in conduct between the participants' test scores across time (i.e., pre- to posttest) and between group (i.e., summer 2017 versus summer 2018) or the interaction of group by time in behaviorally challenged OJ children attending the STP.

H₀₄: There is no statistically significant decrease in anxiety between the participants' test scores across time (pre- to posttest) and between group (i.e., summer 2017 versus summer 2018) or the interaction of group by time in behaviorally challenged OJ children attending the STP.

H_{a4}: There is a statistically significant decrease in anxiety between the participants' test scores across time (i.e., pre- to posttest) and between group (i.e., summer 2017 versus summer 2018) or the interaction of group by time in behaviorally challenged OJ children attending the STP.

H₀5: There is no statistically significant decrease in attention between the participants' test scores across time (i.e., pre- to posttest) and between group (i.e., summer 2017 versus summer 2018) or the interaction of group by time in behaviorally challenged OJ children attending the STP.

H_a5: There is a statistically significant decrease in attention between the participants' test scores across time (i.e., pre- to posttest) and between group (i.e., summer 2017 versus summer 2018) or the interaction of group by time in behaviorally challenged OJ children attending the STP.

H₀6: There is no statistically significant increase in adaptability between the participants' test scores across time (pre- to posttest) and between group (i.e., summer 2017 versus summer 2018) or the interaction of group by time in behaviorally challenged OJ children attending the STP.

H_a6: There is a statistically significant increase in adaptability between the participants' test scores across time (i.e., pre- to posttest) and between group (i.e., summer 2017 versus summer 2018) or the interaction of group by time in behaviorally challenged OJ children attending the STP.

H₀7: There is no statistically significant increase in functional communication between the participants' test scores across time (i.e., pre- to posttest) and between group (i.e., summer 2017 versus summer 2018) or the interaction of group by time in behaviorally challenged OJ children attending the STP.

H_a7: There is a statistically significant increase in functional communication between the participants' test scores across time (pre- to posttest) and between

group (i.e., summer 2017 versus summer 2018) or the interaction of group by time in behaviorally challenged OJ children attending the STP.

Methodology

Population

The target population was male children of the OJ community. There are 5.3 million Jewish adults and 1.3 million Jewish children living in the United States (Pew Research Center, 2015). Of the 1.3 million Jewish children, approximately 10% identify as Orthodox, which is approximately 130,000 OJ children (Pew Research Center, 2015). The sex ratio at birth is 1.05 males for every 1 female; therefore, there are a minimum of approximately 66,585 Orthodox Jewish male children (World Bank, 2018).

Sampling Procedures and Data Collection

In this study, I utilized archival data gathered through the use of purposeful sampling. The sampling strategy was categorized as purposeful because there were inclusion and exclusion criteria of the participants being only males from the OJ community (see Creswell, 2009). The archival data consisted of BASC-3 PRS-C results that had been administered by a STP staff member and completed by the parents of the children as a pretest before the beginning of the STP and as a posttest at the conclusion of the summer. The archival data consists of two summers worth of data: 2017 and 2018. Both in 2017 and 2018, there were 20 pre- and posttests completed for total of 40 research participants. In each summer, there were approximately 45 children who attended the STP.

The data were sent to me from a director of the STP via a trusted courier. The data were transported in a sealed envelope for their safeguarding. The archival data were de-identified as per the privacy rules and regulations of the Health Insurance Portability and Accountability Act.

I conducted a secondary analysis of the original data obtained from the original research group. An advantage of utilizing secondary data is that it saves resources and time of searching for research participants and gathering the data. Another advantage in this case was that there was no fee involved to access the data.

However, there are limitations of utilizing secondary data. Typically, secondary data are not collected to address the specific research questions and hypotheses (Cheng & Phillips, 2014). Additionally, there may be information missing from the research participants that would have been beneficial to the researcher, which could impact the interpretation of the results (Cheng & Phillips, 2014). In this research study, the archival data obtained aligned with the research question and hypotheses. The potential for missing information from the research participants may be a limitation in this study.

Instrumentation and Materials

The instrument used to collect the data was the BASC-3. The BASC-3, designed by Reynolds and Kamphaus (2015) and published by Pearson, is a multidimensional rating scale system that assesses the behaviors and emotions of children. The BASC-3 is comprised of many rating scales, including parent and teacher, and self-rating scales for children ranging from ages 2 through 21 years old. The PRS is standardized to use for adolescents (i.e., 12 through 21 year olds), children (i.e., 6 through 11 year olds), and

preschool children (i.e., 2 through 5 year olds). The specific BASC-3 utilized in the archival data of this study was the PRS-C for a child aged 6 through 11 years old.

The BASC-3 PRS-C is comprised of 175 items and utilizes a 4-point Likert scale (i.e., *never, sometimes, often, and almost always*; Reynolds & Kamphaus, 2015). When rating the BASC-3 PRS-C, the parent indicates the frequency the child has demonstrated, displayed, or engaged in tendencies of the behaviors (Reynolds & Kamphaus, 2015). Behaviors rated in the BASC-3 PRS-C include “Pays attention,” “Acts without thinking,” “Teases others,” “Breaks rules,” “Bullies others,” “Is overly aggressive,” and “Acts out of control.” Behaviors that also highlight behavioral and emotional strengths of the child are addressed. For example, “Is usually chosen as a leader,” “Shows interest in other,” “Is good at getting people to work together,” and “Compliments others.” Administration of BASC-3 PRS-C takes between approximately 10–20 minutes (Reynolds & Kamphaus, 2015).

In the BASC-3 PRS-C, the composite scores consists of four categories; Externalizing Problems, Internalizing Problems, Behavioral Symptom Index, and Adaptive Skills (Reynolds & Kamphaus, 2015). In the category of Externalizing Problems is hyperactivity, aggression, and conduct problems, while anxiety, depression, and somatization are in the Internalizing Problems category (Reynolds & Kamphaus, 2015). In the Behavioral Symptom Index are attention problems, atypicality, and withdrawal, while the Adaptive Skills category is comprised of adaptability, social skills, leadership, functional communication, and activities of daily living (Reynolds & Kamphaus, 2015).

After completion, the BASC-3 PRS-C scores are totaled and converted into *t* scores (Reynolds & Kamphaus, 2015). For the Externalizing Problems, Internalizing Problems, and Behavioral Symptom Index, a higher score indicates a stronger manifestation of the specific category of behavior (Reynolds & Kamphaus, 2015). The *t* scores of 70 and above are in the clinically significant range and indicates a strong level of maladjustment of the given behavior (Reynolds & Kamphaus, 2015). A *t* score between 60 and 69 is in the category of the at-risk range, which illustrates the issue may not be severe enough but it requires monitoring. A *t* score of 41 to 59 is categorized in the average range (Reynolds & Kamphaus, 2015). Approximately, two thirds of the population score in the average range (Reynolds & Kamphaus, 2015). A *t* score of 31 to 40 is categorized in the low range, and *t* scores of 30 and below are categorized in the very low range.

For the category of Adaptive Skills, a lower score indicates a stronger deficiency of the specific category of behavior (Reynolds & Kamphaus, 2015). The *t* scores 30 and below are categorized as clinically significant, *t* scores between 31 to 40 range are in the at-risk category, *t* scores of 41 to 59 are categorized in the average range, *t* scores between 60 to 69 range are in the high range, and *t* scores of 70 and above are categorized in the very high range (Reynolds & Kamphaus, 2015).

In terms of content validity, the BASC-3 is recognized as a reliable instrument and is widely used in clinical, school, and various treatment settings (King, 2018; Zhou et al., 2018). It is a standard tool that is administered by clinicians during initial intake sessions to gather information to assess, identify, and possibly diagnose the specific

aspects of a child's challenging behavior (King, 2018; Zhou et al., 2018). According to the *Diagnostic and Statistical Manual of Mental Disorders* (5th ed.), the BASC-3 PRS-C has the criteria to diagnose ADHD, disruptive mood dysregulation disorder, autism spectrum disorder, oppositional defiant disorder, and conduct disorder (Reynolds & Kamphaus, 2015).

However, Reynolds and Kamphaus (2015) recommended that behavior observations and clinical interviews are recommended before making a complete diagnosis. The PRS is completed by parents and the teacher rating scale is often given to teachers to identify the child's behavior in the child's school setting.

The BASC-3 PRS-C was standardized utilizing normative data of a large sample of 1,800 children from the United States between ages 2 through 18. The normative sample was generated by stratified sampling partitioned into subpopulations identified by sex by region, sex by race/ethnicity, sex according to mother's education level (Reynolds & Kamphaus, 2015).

The PRS-C consists of three validity indexes. The F index evaluates the tendency of the rater to give overly negative responses. The Response Pattern index recognizes if the responses are patterned in a repetitive or cyclical manner. The Consistency index highlights when a rater responds to similar items in an inconsistent manner.

Another facet of validity is criteria validity. Criteria validity is comprised of two elements, predictive and concurrent validity. Predictive validity shows the extent the scores on the given measure are able to demonstrate what it is claiming to measure.

Concurrent validity can be defined as the correlation between the given measurement tool and similar measures which have been shown to have efficient validity.

In terms of the BASC-3 PRS, predictive validity would show that the scores of the given subscale are demonstrated in reality. For example, a child who receives a high score in the subscale of aggression is shown to actually behave in an aggressive manner. Research shows that for child custody evaluations, the BASC-3 is utilized for it accurately provides specific information regarding the way children behave in various settings (King, 2018). This shows the BASC-3 can be relied upon to predict and provide accurate information regarding the children's behaviors.

In terms of concurrent validity for the BASC-3 PRS, there is research showing the correlation of the BASC-2 PRS and other valid behavioral assessments (Wallbrown, 2013). The research shows the BASC-2 PRS is correlated with the Achenbach System of Empirically Based Assessment, the Conners' Rating Scale-Revised, and the first version of the BASC. There is significant correlation between the subscales when similar content was assessed (Wallbrown, 2013). Additionally, the similar scales of the BASC-2 and Child Behavior Checklist were shown to have positive and significant correlation (Wallbrown, 2013). The BASC-3 PRS is significantly correlated with the BASC-2 PRS (Reynolds & Kamphaus, 2015). Therefore, there is sufficient evidence which demonstrates the concurrent validity of the BASC-3.

In regard to reliability, one element is coefficient reliability. Coefficient reliability quantifies the degree of consistency of the testing measure by obtaining a similar result when measuring the same individual twice in a very short time span. (Reynolds &

Kamphaus, 2015). The coefficient reliability of the PRS-C subscale of hyperactivity for a male ranges from .84 to .89 (Reynolds and Kamphaus, 2015). The coefficient reliability of the PRS-C subscale of Aggression for a male, ranges from .78 to .88 (Reynolds & Kamphaus, 2015). For the subscale of Conduct Problems, the coefficient reliability for a male, ranges from .89 to .90. The subscale of Anxiety has a coefficient reliability for a male ranging from .84 to .87. Regarding the subscale of Somatization, the coefficient reliability for a male, ranges from .85 to .86. In terms of the subscale of Attention Problems, the coefficient reliability for a male is .88.

Another element of reliability is test-retest reliability. Test-retest reliability shows the ability of the results to be similar when administered a second time several weeks later, when the overall situation of the child has not changed in any significant manner (Reynolds & Kamphaus, 2015). Testing for test-retest reliability in this study would not be appropriate as the STP is a significant change in the children's environment and would be expected to have different results in the two tests.

The test-retest reliability of the PRS-C subscale of Hyperactivity is .91 (Reynolds & Kamphaus, 2015). The Test-Retest reliability of the subscale of Aggression is .89 (Reynolds & Kamphaus, 2015). For the subscale of Conduct Problems, the test-retest reliability is .91. The subscale of Anxiety has a test-retest reliability of .87. Regarding the subscale of Somatization, the test-retest reliability is .87. In terms of the subscale of Attention Problems, the test-retest reliability is .92.

In all, the BASC-3 PRS is a valid and reliable instrument that is used to assess a broad range of behavior and emotional problems. It is easy to administer and is

appropriate to assess the behaviors of children in a treatment program. Therefore, the BASC-3 was completed by the parents of children pre and post the treatment program to assess the changes in the children's behavior as a result of the program.

Operationalization of Constructs

Independent Variable

The IV, the STP, is an 8-week program that takes place during the summer (Pelham & Hoza, 1996). The specific STP studied in this article, is a faith-based program that is exclusively available to the children of the OJC. The participating children attend the program on weekdays for approximately 8 hours a day. Paraprofessional counselors are employed by the program to implement the standard treatment program under the guidance and supervision of psychologists with a postgraduate doctoral degree and licensed clinical social workers. The children are placed in groups of children their own age. The group remains together throughout the summer which allows them to receive treatment in learning how to function as a group. Each group spends an hour a day in learning sessions and the behavior modification program focuses on treating the children's behavioral issues in a classroom setting. The rest of the day is consisted of recreational activities that are employed in a group setting.

Treatment goals include being compliant to adults' commands, improved interpersonal relationship skills, problem solving skills, and parent training. The STP utilizes a point system which consists of a systematic reward/response cost program where children gain points for appropriate behavior and are deducted points for inappropriate behavior while engaging in activities throughout the day.

The religious aspects of the STP make the program only suitable for children who are from the OJ community. To begin with, all the children in the program are boys. Due to religious reasons, boys and girls do not attend the same institutions including day camps (Schnall, 2006).

In terms of religious activities, the children have religious services for half an hour each morning. A counselor leads the prayers and the children recite the religious prayers while reading from a prayer book. The children earn points for their behaviors for participating in an appropriate manner. There are activity rules set in place during the prayer services and children receive points for following the activity and behaving appropriately.

Additionally, approximately 15 minutes are set aside to learn Torah. Learning sessions utilize the rules of group discussions. A counselor leads the group in a learning session and the children participate similarly in a regular discussion. The rules for group discussion are in effect and they receive and lose points accordingly.

Another area where religion impacts the program is regarding dietary restrictions. All the food served in the program is Kosher. Kosher food are the laws mentioned above including not mixing milk and meat (Kertzer, 1996). Kosher food is standard for all the children attending the program and is not something unique to them, however it is unique compared to other STPs. A kosher diet impacts the children's nutrition, which has an impact on their physical well-being and general behavior.

Dependent Variables

Hyperactivity. Hyperactivity refers to Hyperactivity in the BASC-3 PRS-C, which is also in the category of Externalizing Problems. Hyperactivity can be defined as being active in an abnormal or unusual manner (Spiegel & Pollak, 2019). The Hyperactivity category consists of 11 items which include “Is overly active,” “Is in constant motion,” “Is unable to slow down,” and “Acts out of control.” Each item is measured on a 4-point Likert scale (i.e., *never, sometimes, often, and almost always*; Reynolds & Kamphaus, 2015). In this study, hyperactivity was based on the *t* score on a scale of 0 to 120 in the category of Hyperactivity.

Aggression. Aggression can be described as hostile behavior with being ready to confront or physically attack another (Evans, Frazer, Blossom, & Fite, 2019). In the BASC-3 PRS-C, Aggression is in the category of Externalizing Problems. The Aggression category is comprised of nine items such as “Threatens to hurt others,” “Throws or breaks things when angry,” “Hits other children,” and “Bullies others.” Each item is measured on a 4-point Likert scale (i.e., *never, sometimes, often, and almost always*; Reynolds & Kamphaus, 2015). In this study, aggression was based on the *t*-score on a scale of 0 to 120 in the category of Aggression.

Conduct. Conduct refers to Conduct Problems in the BASC-3 PRS-C, which is also in the category of Externalizing Problems. Conduct Problems consists of 10 items including “Disobeys,” “Lies,” “Deceives others,” “Breaks the rules,” and “Lies to get out of trouble.” Each item is measured on a 4-point Likert scale (i.e., *never, sometimes, often, and almost always*; Reynolds & Kamphaus, 2015) In this study, conduct was based on the *t* score on a scale of 0 to 120 in the category of Conduct Problems.

Anxiety. Anxiety can be defined as a feeling of worry or unease usually related to perceived danger or an uncertainty (Gruda & Hasan, 2019). In the BASC-3 PRS-C, Anxiety is in the category of Internalizing Problems. The Anxiety category is comprised of 14 items which include “Worries,” “Is fearful,” “Worries about things that cannot be changed,” “Is Nervous,” “Has panic attacks,” and “Is easily stressed.” Each item is measured on a 4-point Likert scale (i.e., *never, sometimes, often, and almost always*; Reynolds & Kamphaus, 2015). In this study, anxiety was based on the *t*-score on a scale of 0 to 120 in the category of Anxiety.

Attention. Attention refers to Attention Problems in the BASC-3 PRS-C and is in the category of Behavioral Symptoms Index. Attention can be defined as the cognitive ability to concentrate on a specific aspect of information while ignoring other available stimuli (Barkley, 2013). Attention problem is the lack of ability to maintain focus on specific information for any significant amount of time (Barkley, 2013). The Attention Problems category is comprised of seven items such as “Pays attention,” “Has a short attention span,” “Is easily distracted,” and “Has trouble concentrating.” Each item is measured on a 4-point Likert scale (i.e., *never, sometimes, often, and almost always*; Reynolds & Kamphaus, 2015). In this study, attention problem was based on the *t* score on a scale of 0 to 120 in the category of Attention Problems.

Adaptability. Adaptability is the capacity to be able to adjust to new circumstances appropriately (Kostrubiec, Huy, Jas, & Kruck, 2018). In the BASC-3 PRS-C, Adaptability is in the category of Adaptive Skills. Adaptability is comprised of eight items including “Adjusts well to changes in family plans,” “Adjusts well to changes in

routine,” “Handles winning and losing well,” and “Is easily calmed when angry.” Each item is measured on a 4-point Likert scale (i.e., *never*, *sometimes*, *often*, and *almost always*; Reynolds & Kamphaus, 2015). In this study, adaptability was based on the *t* score on a scale of 0 to 120 in the category of Adaptability.

Functional communication. Functional communication can be defined as conveying information to another in a socially appropriate manner (Tsami & Lerman, 2019). In the BASC-3 PRS-C, Adaptability is also in the category of Adaptive Skills. Functional Communication is comprised of 12 items. Items include “Responds appropriately when asked a question,” “Communicates clearly,” “Starts conversations,” and “Is able to describe feelings accurately.” Each item is measured on a 4-point Likert scale (i.e., *never*, *sometimes*, *often*, and *almost always*; Reynolds & Kamphaus, 2015). In this study, functional communication was based on the *t* score on a scale of 0 to 120 in the category of Functional Communication.

Data Analysis Plan

The study utilized the Statistical Package for Social Sciences v25.0 software to analyze the data. A repeated measures mixed factorial ANOVA was utilized to measure the differences in pretest and posttest scores of the two groups. The IV consists of two groups; one from the summer of 2017 and the other from 2018. Each group utilized a between group factor. A split plot was used for the two groups. The pre- and posttest utilized time as the repeated measures factor and showed the progress in the specific categories being measured. Thereby, it is a 2 X 2 factorial ANOVA design. The mixed aspect of the design tested the main effects of time (pre- and posttest), group (summer

2017 and summer 2018) and their interaction of the two levels of each of the variables and determined if there was a statistical significance for each of the effects.

Threats to Validity

In a quasi-experimental design utilizing a pre- and post-test, there are potential threats to internal validity that need to be accounted for (Frankfort-Nachmias et al., 2014). Threats include maturation, history, mortality, and placebo. Maturation refers to the process of changes that evolve naturally over the passage of time (Frankfort-Nachmias et al., 2014). In this study, there was an approximate 8 week time period between the pre- and posttest. The children growing older and maturing could be a factor in the shift of the children's behavior unrelated to the IV of the STP. To control for maturation, time will be a control factor in the repeated measures research design.

History refers to the experiences that occur during the time period of the study which could impact the results (Frankfort-Nachmias et al., 2014). In this study, this would refer to the possible experiences that occurred in the lives of the children who attended the STP. Experiences could include a child whose parents were going through a divorce which could impact his behavior during the 8 week STP. However, since the data has already been gathered, it was not an option to assess if this threat is relevant.

Mortality refers to participants who dropout of the study which prevents the researcher from obtaining all the information on all of the participants (Frankfort-Nachmias et al., 2014). In this study, this would be relevant for parents who filled out the pretest but did not complete the posttest which would limit the amount of data gathered in the study. There were a small number of parents who filled out the pretest but did not fill

out the posttest. However, there was still a significant number of parents who completed both the pre- and posttest which supplied sufficient data for the study.

Placebo refers to the threat of participants' desire for a specific outcome (Frankfort-Nachmias et al., 2014). In this study, where the parents invested significant finances for their children to attend the program, they may be motivated consciously or unconsciously to see improvement for their child and may rate the child as being more improved than in actual reality. However, one could rely on the test-retest reliability of the PRS-C for Composites which is .88, to account for the placebo bias (Reynolds & Kamphaus, 2015).

In terms of external validity, which accounts for the ability to generalize the results, the two main factors are representativeness and reactive arrangements (Frankfort-Nachmias et al., 2014). Representativeness refers to the sample participants' ability to represent the general population. The participants in the study are males from the OJC, which would mean the results may not be generalizable to females within the OJ community or to males of non-OJ individuals. However, the focus and uniqueness of the study is specifically to study if the STP is effective for children of the OJ community. There is already previous research that shows the STP is effective for children of the non-OJ community (Pelham et al., 2000).

Reactive arrangements refer to when the experimental situation takes place in a laboratory type environment which may not be generalizable to other types of environments. This study analyzed the impact of the STP which is an environment similar to a laboratory. However, the point of the study specifically assessed if this

laboratory environment of the STP is an effective intervention. Therefore, in this study, the laboratory environment does not diminish the external validity.

Ethical Procedures

Privacy and Confidentiality

No identifying information that would jeopardize the confidentiality of the participants is contained in the data. The rating scale was administered to the parent of the child and was collected in person by the faculty of the STP. The data were presented to me by a director of the STP without identifying information of the participants. The data utilized number codes in place of the names to ensure the privacy of the participants. The institutional review board approved the ethical standards utilized in this study. The approval number for this study is 05-11-20-0593809.

Informed Consent

The parents of the children manually signed an informed consent form. The form informed the parents of the nature and purpose of gathering the data, the procedures of filling out the BASC-3, and the types of questions that will be asked. The parents were informed that their participation is voluntary and were made aware of the risks and benefits of participating in the research. Also, the parents of the children were informed that there will be no repercussions should they choose not to participate in the study or if they choose to withdraw from the study at any time.

Risk to Participants

The risk of participating in the study is related to the stress and discomfort the parents may experience when completing the rating scale. The parents of the children

were cautioned that if they experience any distress when completing the rating scale, they could change their mind and withdraw from participating in the study. The data were already collected, thereby excluding any possibility of further emotional stress to the participants.

Treatment of Data

In terms of the treatment of the data, the data will be stored in a secure cabinet that can only be accessed by me. The data will be stored for 5 years and then will be destroyed.

Summary

In this quantitative, quasi-experimental study I analyzed the relationship between the completion of the STP and aggression, anxiety, hyperactivity, attention, conduct, adaptability, and functional communication in behaviorally challenged OJ children. The data used in this study was archival data collected from the STP, a faith-based program that is exclusive to male children of the OJC. The data consisted of a total of 40 participants that completed the BASC-3 PRS-C as a pre- and posttest from two summers in 2017 and 2018. A repeated measures mixed factorial ANOVA was utilized to analyze the data.

In this study I assessed the effectiveness of a summer treatment program that can be utilized to improve the behaviors of children of the OJC. The results will be presented in Chapter 4. In Chapter 5 I will discuss the results of the study.

Chapter 4: Results

In this secondary analysis of archival data, I investigated the relationship between the STP's impact on the specific behaviors of male boys of the OJ community who attended the program. A sample of 40 boys, 20 from summer of 2017 and 20 from summer of 2018, were utilized in the study. The parents of the boys completed pre- and posttests of the BASC-3, which measured the boys' behaviors to assess if the STP had an impact on improving their behaviors over the course of the summer while they attended the program. The use of pre- and posttests assessing each boy's behavior was categorized as a repeated measures, within subjects factor research design. The data were collected during two separate summers of summer 2017 and summer 2018, which is categorized as between group factor.

Data Collection

I used archival data in this study. The use of deidentified archival data removed the necessity to recruit research participants (see Leonhardt, Trafimow, & Niculescu, 2017). Additionally, utilizing secondary data provided the benefits of low costs, avoidance of risk, and reduced turnaround time frame and delays related to options for research design (see Leonhardt et al., 2017).

The data were collected at two times: between July 2017 and August 2017 and between July 2018 and August 2018. The parents of the boys attending the STP agreed to fill out the BASC-3 questionnaire before the STP began and after the STP was concluded. The parents or legal guardians all signed consent forms to participate in the collection of data. The consent form allowed participants to refuse or withdraw at any

time during the process. The boys were between the ages of 6 and 11 years old and from the OJC.

Data Results

Hyperactivity

I conducted a two-way, repeated measures, mixed factorial ANOVA to assess if there was a difference in the research participants' pre- and posttest scores across time from the summer of 2017 to the summer of 2018. Time was the within-subjects DV, and summer was the between-subjects DV. The participants of summer 2017 ($n = 20$) and participants of summer 2018 ($n = 20$) attended the STP and underwent behavioral treatment to attempt to improve their behaviors.

I used Levene's test to assess for homogeneity of variances. Levene's test assesses if the distribution of the mean scores of the two samples are considered equal (Green and Salkind, 2008). The results of Levene's test was not significant for pretests of Hyperactivity ($F(1,38) = .002$, $p = .961$) and posttests of Hyperactivity ($F(1,38) = .958$, $p = .334$). Therefore, I assumed there is homogeneity of variances for both the pre- and posttest variables.

The means and standard deviations of Hyperactivity scores by time and group are displayed in Table 1. I conducted a two-way, repeated measures, mixed factorial ANOVA of the main effect for group (i.e., summer), time (i.e., pre- and posttest), and their interaction (see Table 2).

Table 1

Means and Standard Deviations of Hyperactivity Scores by Time and Summer

	Time					
	Pretest			Posttest		
	Hyperactivity			Hyperactivity		
Summer	<i>M</i>	<i>SD</i>	<i>N</i>	<i>M</i>	<i>SD</i>	<i>N</i>
Summer	62.80	8.661	20	57.20	8.995	20
2017						
Summer	66.00	8.092	20	58.15	7.604	20
2018						
Total	64.40	8.430	40	57.67	8.235	40

Table 2

ANOVA on Hyperactivity Scores by Time and Summer

Source	<i>df</i>	<i>F</i>	<i>p</i>	η^2
Within subjects				
Time	1	34.73	< .001	.478
Time x Summer	1	.972	.330	.025
Error	38	(26.05)		
Between subjects				
Summer	1	.758	.389	.020
Error	38	(113.56)		

The main effect for group (i.e., summer) was not significant $F(1, 38) = .758, p > .05$ ($\eta^2 = .020$). This indicates that there was no overall difference between the two groups on test scores. The summer 2017 posttest group ($M = 57.20, SD = 8.99$) did not score significantly higher in the posttest than the summer 2018 group ($M = 58.15, SD = 7.60$). This demonstrates that both groups (i.e., summer 2017 and summer 2018) showed similar statistically significant differences between the pre- and posttests of Hyperactivity.

The main effect for time was significant $F(1, 38) = 34.73, p < .01$ ($\eta^2 = .478$) and indicates, for the combined samples, that the Hyperactivity scores decreased significantly from pretest ($M = 64.4, SD = 8.43$) to posttest ($M = 57.7, SD = 8.24$). Based on the effect size (i.e., Eta-square), this 6.73-point decrease in Hyperactivity scores is a large effect size (see Figure 1). These findings led me to reject the null hypothesis of the within-group factor and conclude that both groups (i.e., summer 2017 and summer 2018) showed similar statistically significant differences between the pre- and posttests of Hyperactivity. The effect for time x summer interaction is not significant, $p > .05$; therefore, it is not necessary to analyze their interaction.

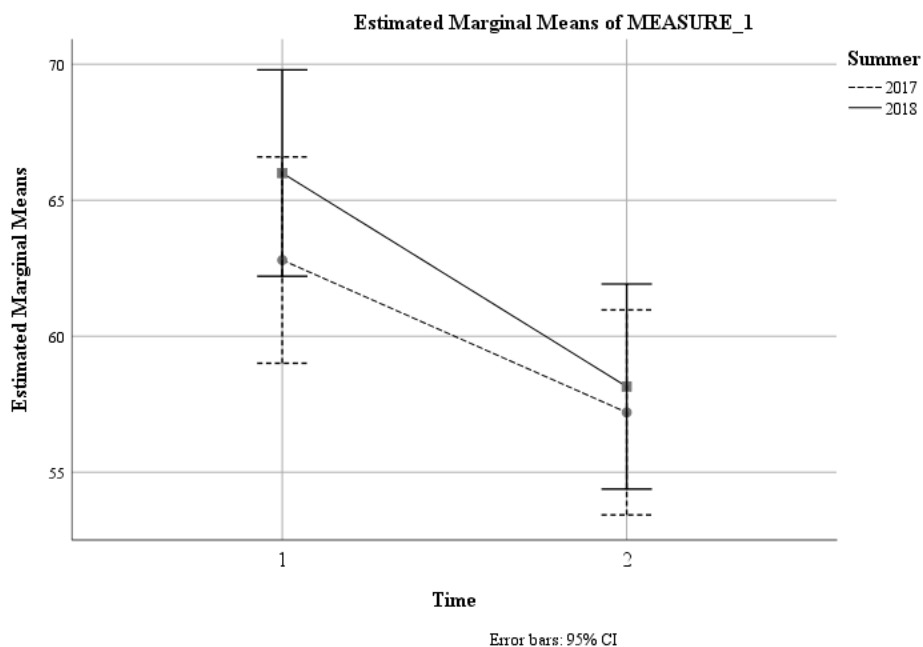


Figure 1. Pre- and posttest means of Hyperactivity.

Aggression

I used Levene's test to assess for homogeneity of variances. The result of Levene's test was not significant for pretests of Aggression ($F(1,38) = 1.62, p = .211$) and posttests of Aggression ($F(1,38) = .318, p = .576$). Therefore, I assumed there was homogeneity of variances for both the pre- and posttest variables.

The means and standard deviations of Aggression scores by time and group are displayed in Table 3. I conducted a two-way, repeated measures, mixed factorial ANOVA for the main effect of group (i.e., summer), time (pretest and posttest), and their interaction (see Table 4).

Table 3

Means and Standard Deviations of Aggression Scores by Time and Summer

	Time					
	Pretest			Posttest		
	Aggression			Aggression		
Summer	<i>M</i>	<i>SD</i>	<i>N</i>	<i>M</i>	<i>SD</i>	<i>N</i>
Summer	71.75	15.49	20	63.50	12.07	20
2017						
Summer	73.30	10.77	20	66.60	11.48	20
2018						
Total	72.52	13.19	40	65.05	11.73	40

Table 4

ANOVA on Aggression Scores by Time and Summer

Source	<i>df</i>	<i>F</i>	<i>p</i>	η^2
Within				
subjects				
Time	1	18.19	< .001	.324
Time x	1	.195	.661	.005
Summer				
Error	38	(61.45)		
Between				
subjects				
Summer	1	.424	.519	.011
Error	38	(255.23)		

The main effect for group (i.e., summer) was not significant $F(1, 38) = .424, p > .05$ ($\eta^2 = .011$). This indicates that there was no overall difference between the two groups on test scores. The summer 2017 aggression posttest group ($M = 63.50, SD = 12.07$) did not score significantly higher in the posttest than the summer 2018 group in Aggression ($M = 66.60, SD = 11.48$). This shows that both groups (i.e., summer 2017 and summer 2018) showed similar statistically significant differences between the pre- and posttests of Aggression.

The main effect for time was significant $F(1, 38) = 18.19, p < .01$ ($\eta^2 = .324$) and indicates, for the combined samples, that the Aggression scores significantly decreased. Based on the effect size (i.e., Eta-square), this 7.47-point decrease in Aggression scores is a large effect size (see Figure 2). This finding led me to reject the null hypothesis of the within-group factor and conclude that both groups (i.e., summer 2017 and summer 2018) showed similar statistically significant differences between the pre- and posttests of Aggression. The effect for time x summer interaction for Aggression is not significant, $p > .05$; therefore, it is not necessary to analyze their interaction.

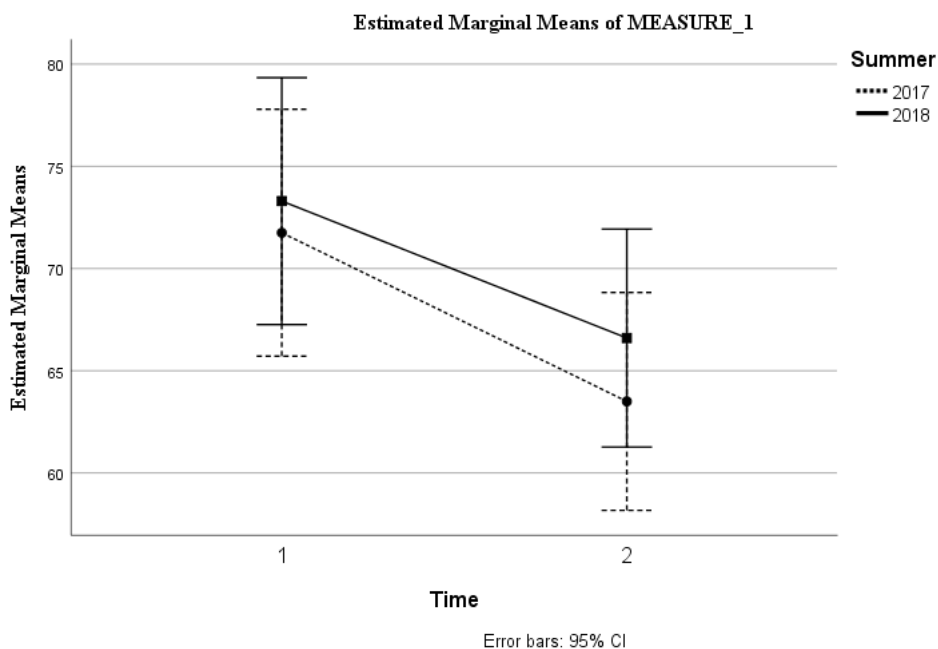


Figure 2. Pre- and posttest means of Aggression.

Conduct Problems

I used Levene's test to assess for homogeneity of variances. The result of Levene's test was not significant for pretests of Conduct Problems ($F(1,38) = .0004$, $p = .984$) and posttests of Conduct Problems ($F(1,38) = .074$, $p = .787$). I could, therefore assume that there is homogeneity of variances for both the pre- and posttest variables.

The means and standard deviations of Conduct Problems scores by time and group are displayed in Table 5. I conducted a two-way, repeated measures, mixed factorial ANOVA to the main effect for group (i.e., summer), time (i.e., pre- and posttest), and their interaction (see Table 6).

Table 5

Means and Standard Deviations of Conduct Problems Scores by Time and Summer

	Time					
	Pretest			Posttest		
	Conduct			Conduct		
	Problems			Problems		
Summer	<i>M</i>	<i>SD</i>	<i>N</i>	<i>M</i>	<i>SD</i>	<i>N</i>
Summer	61.15	10.22	20	55.30	9.07	20
2017						
Summer	65.60	10.83	20	58.80	9.57	20
2018						
Total	62.38	10.64	40	57.05	9.37	40

Table 6

ANOVA on Conduct Problems Scores by Time and Summer

Source	<i>df</i>	<i>F</i>	<i>p</i>	η^2
Within				
subjects				
Time	1	25.81	< .001	.405
Time x	1	.146	.705	.004
Summer				
Error	38	(31.0)		
Between				
subjects				
Summer	1	.190	.177	.048
Error	38	(166.76)		

The main effect for group (summer) was not significant $F(1, 38) = .190, p > .05$ ($\eta^2 = .048$). This indicates that there was no overall difference between the two groups on test scores. The summer 2017 Conduct Problems posttest group ($M = 55.30, SD = 9.07$) did not score significantly higher in the posttest than the summer 2018 group in Conduct Problems ($M = 58.80, SD = 9.37$). This concludes that both groups (Summer 2017 and summer 2018) showed similar statistically significant differences between the pre- and posttest of Conduct Problems.

The main effect for time was significant $F(1, 38) = 25.81, p < .01$ ($\eta^2 = .405$) and indicates for the combined samples that the Conduct Problems scores significantly decreased significantly from pretest ($M = 62.38, SD = 10.64$) to posttest ($M = 57.05, SD = 9.37$). Based on the effect size (Eta-square), this 5.33-point decrease in Conduct Problems scores is a large effect size (see Figure 3). This demonstrates the rejection of the null hypothesis of the within group factor and concludes that both groups (summer 2017 and summer 2018) showed similar statistically significant differences between the pre- and posttest of Conduct Problems. The effect for time x summer interaction for Conduct Problems is not significant, $p > .05$; therefore, it is not necessary to analyze their interaction.

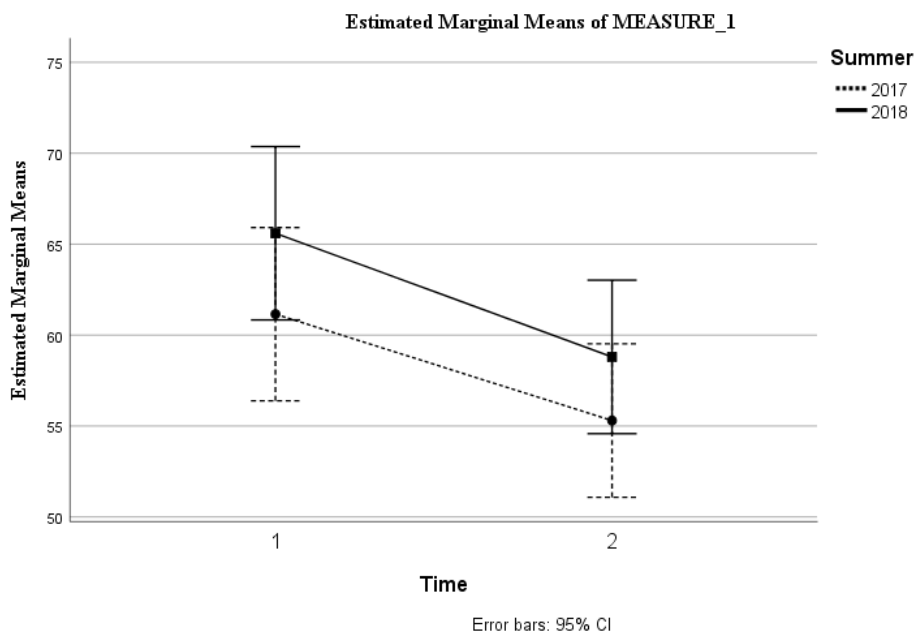


Figure 3. Pre- and posttest means of Conduct Problems.

Anxiety

Levene's test was utilized to assess for homogeneity of variances. Levene's test was not significant for pretests of Anxiety ($F(1,38) = 1.07, p = .309$) and posttests of conduct problems ($F(1,38) = .425, p = .518$). Therefore, I assume there is homogeneity of variances for both the pre- and posttest variables.

The means and standard deviations of Anxiety scores by time and group are displayed in Table 7. A two-way repeated measures mixed factorial ANOVA was conducted to the main effect for group (summer), time (pre-and posttest), and their interaction (see Table 8).

Table 7

Means and Standard Deviations of Anxiety Scores by Time and Summer

	Time					
	Pretest			Posttest		
		Anxiety			Anxiety	
Summer	<i>M</i>	<i>SD</i>	<i>N</i>	<i>M</i>	<i>SD</i>	<i>N</i>
Summer	56.80	13.93	20	53.15	11.93	20
2017						
Summer	49.70	12.49	20	48.10	11.05	20
2018						
Total	53.25	13.55	40	50.63	11.64	40

Table 8

ANOVA on Anxiety Scores by Time and Summer

Source	<i>df</i>	<i>F</i>	<i>p</i>	η^2
Within subjects				
Time	1	3.11	.086	.076
Time x Summer	1	.473	.496	.012
Error	38	(44.39)		
Between subjects				
Summer	1	2.81	.102	.069
Error	38	(262.87)		

The main effect for group (summer) was not significant $F(1, 38) = 2.81, p > .05$ ($\eta^2 = .069$). This indicates that there was no overall difference between the two groups on test scores. The summer 2017 anxiety posttest group ($M = 53.15, SD = 11.93$) did not score significantly higher in the posttest than the summer 2018 group in Anxiety ($M = 48.10, SD = 11.05$). This concludes that both groups (summer 2017 and summer 2018) showed similar statistically significant differences between the pre- and posttest of Anxiety.

The main effect for time was not significant $F(1, 38) = 3.11, p > .05$ ($\eta^2 = .076$) and indicates for the combined samples that the Anxiety scores did not decrease significantly from pretest ($M = 53.25, SD = 13.93$) to posttest ($M = 50.63, SD = 11.64$). This demonstrates the null hypothesis failed to be rejected and concludes that the combined groups (summer 2017 and summer 2018) did not show statistically significant differences between the pre- and posttest of Anxiety (see Figure 4). The effect for time x summer interaction for anxiety is not significant, $p > .05$; therefore, it is not necessary to analyze their interaction.

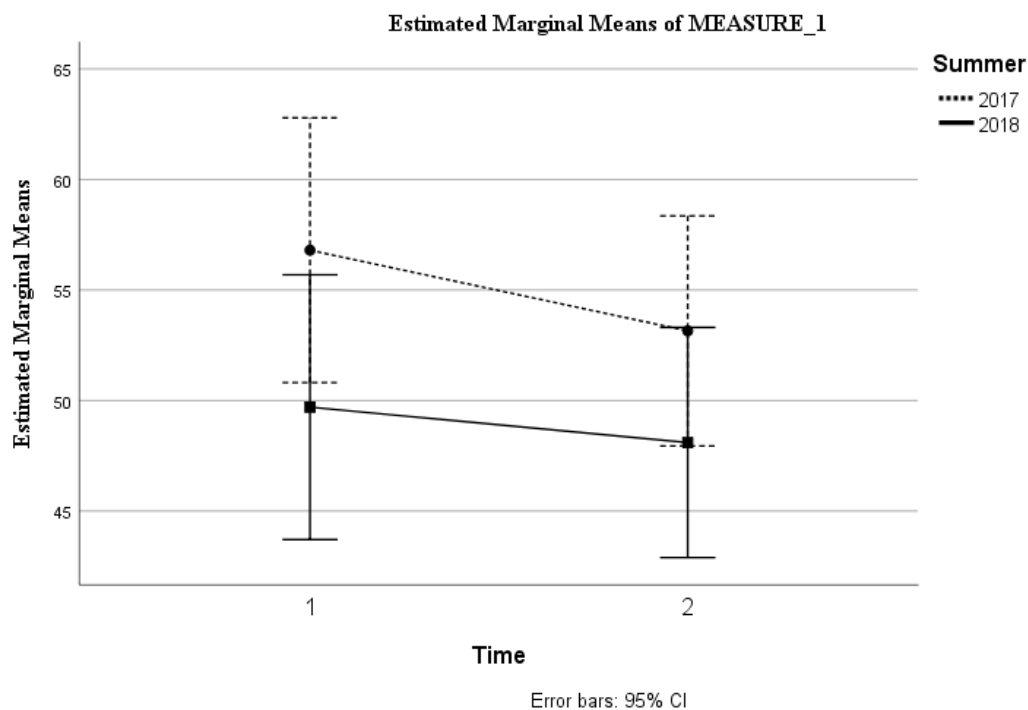


Figure 4. Pre- and posttest means of Anxiety.

Attention Problems

Levene's test was utilized to assess for homogeneity of variances. Levene's test was not significant for pretests of attention problems ($F(1,38) = .299, p = .587$) and posttests of Attention Problems ($F(1,38) = 2.37, p = .132$). Therefore, I assume there is homogeneity of variances for both the pre- and posttest variables.

The means and standard deviations of Attention Problems scores by time and group are displayed in Table 9. A two-way repeated measures mixed factorial ANOVA was conducted to the main effect for group (summer), time (pre- and posttest), and their interaction (see Table 10).

Table 9

Means and Standard Deviations of Attention Problems Scores by Time and Summer

	Time					
	Pretest			Posttest		
	Attention			Attention		
	Problems			Problems		
Summer	<i>M</i>	<i>SD</i>	<i>N</i>	<i>M</i>	<i>SD</i>	<i>N</i>
Summer	58.15	7.49	20	53.00	8.64	20
2017						
Summer	61.80	6.51	20	56.40	7.41	20
2018						
Total	59.98	7.17	40	54.70	8.01	40

Table 10

ANOVA on Attention Problems Scores by Time and Summer

Source	<i>df</i>	<i>F</i>	<i>p</i>	η^2
Within				
subjects				
Time	1	22.58	< .001	.373
Time x Summer	1	.013	.911	< .001
Error	38	(24.65)		
Between				
subjects				
Summer	1	2.85	.100	.070
Error	38	(87.37)		

The main effect for group (summer) was not significant $F(1, 38) = 2.85, p > .05$ ($\eta^2 = .070$). This indicates that there was no overall difference between the two groups on test scores. The summer 2017 Attention Problems posttest group ($M = 53.00, SD = 8.64$) did not score significantly higher in the posttest than the summer 2018 group in Attention Problems ($M = 56.40, SD = 7.14$). This concludes that both groups (summer 2017 and summer 2018) showed similar statistically significant differences between the pre- and posttest of Attention Problems.

The main effect for time was significant $F(1, 38) = 22.58, p < .001$ ($\eta^2 = .373$) and indicates for the combined samples, that the Attention Problems scores significantly decreased significantly from pretest ($M = 59.98, SD = 7.17$) to posttest ($M = 54.70, SD = 8.01$). Based on the effect size (Eta-square) this 5.28-point decrease in Attention Problems scores is a large effect size (see Figure 5). This demonstrates the rejection of the null hypothesis of the within group factor and concludes that both groups (summer 2017 and summer 2018) showed similar statistically significant differences between the pre- and posttest of attention problems. The effect for time x summer interaction for Attention Problems is not significant, $p > .05$; therefore, it is not necessary to analyze their interaction.

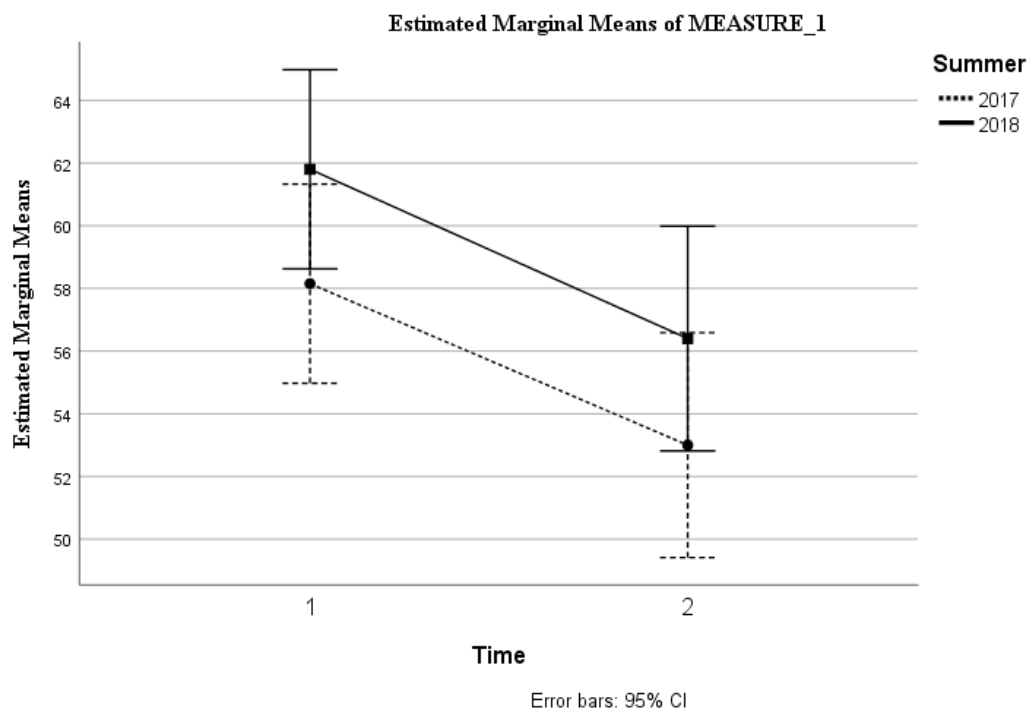


Figure 5. Pre- and posttest means of Attention Problems.

Adaptability

Levene's test was utilized to assess for homogeneity of variances. Levene's test was not significant for pretests of Adaptability ($F(1,38) = .560$, $p = .459$) and posttests of Adaptability ($F(1,38) = 4.12$, $p = .050$). Therefore, I assume there is homogeneity of variances for both the pre-test and posttest variables.

The means and standard deviations of Adaptability scores by time and group are displayed in Table 11. A two-way repeated measures mixed factorial ANOVA was conducted to the main effect for group (summer), time (pre- and posttest), and their interaction (see Table 12).

Table 11

Means and Standard Deviations of Adaptability Scores by Time and Summer

	Time					
	Pretest			Posttest		
	Adaptability			Adaptability		
Summer	<i>M</i>	<i>SD</i>	<i>N</i>	<i>M</i>	<i>SD</i>	<i>N</i>
Summer	37.00	5.85	20	40.95	6.75	20
2017						
Summer	36.05	5.11	20	39.35	4.36	20
2018						
Total	36.52	5.44	40	40.15	5.66	40

Table 12

ANOVA on Adaptability Scores by Time and Summer

Source	<i>df</i>	<i>F</i>	<i>p</i>	η^2
Within				
subjects				
Time	1	12.49	.001	.247
Time x	1	.100	.753	.003
Summer				
Error	38	(61.45)		
Between				
subjects				
Summer	1	.785	.381	.020
Error	38	(41.39)		

The main effect for group (summer) was not significant $F(1, 38) = .785, p > .05$ ($\eta^2 = .020$). This indicates that there was no overall difference between the two groups on test scores. The summer 2017 Adaptability posttest group ($M = 40.15, SD = 6.75$) did not score significantly higher in the posttest than the summer 2018 group in Adaptability ($M = 39.35, SD = 4.36$). This demonstrates that both groups (summer 2017 and summer 2018) showed similar statistically significant differences between the pre- and posttest of adaptability.

The main effect for time was significant $F(1, 38) = 12.490, p < .01$ ($\eta^2 = .247$) and indicates for the combined samples, that the Adaptability scores significantly increased significantly from pretest ($M = 36.52, SD = 5.44$) to posttest ($M = 40.15, SD = 5.66$). Based on the effect size (Eta-square) this 3.63-point increase in adaptability scores is a medium effect size (see Figure 6). This demonstrates the rejection of the null hypothesis of the within group factor and concludes that both groups (summer 2017 and summer 2018) showed similar statistically significant differences between the pre- and posttest of Adaptability. The effect for time x summer interaction for Adaptability is not significant, $p > .05$; therefore, it is not necessary to analyze their interaction.

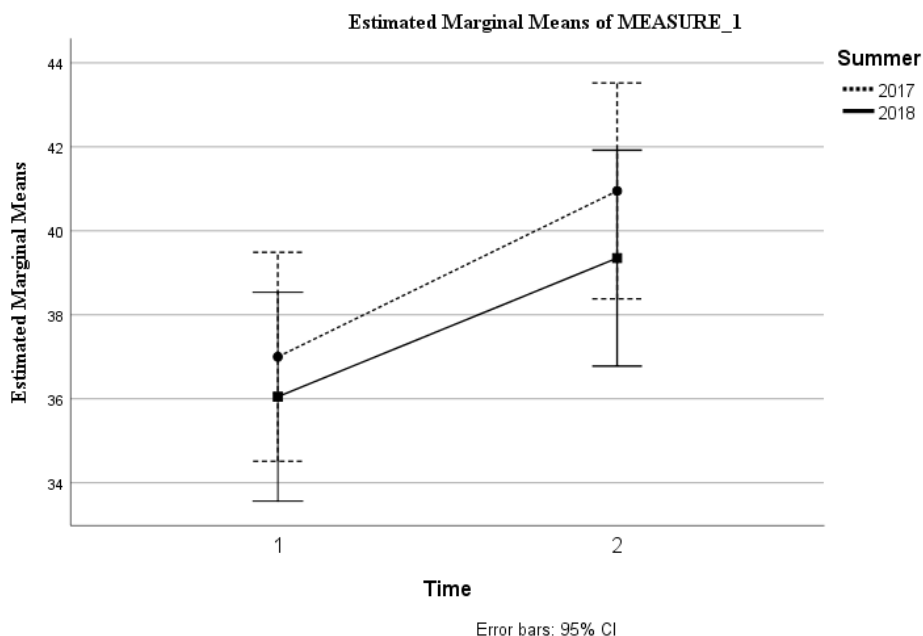


Figure 6. Pre- and posttest means of Adaptability.

Functional Communication

Levene's test was utilized to assess for homogeneity of variances. Levene's test was not significant for pretests of Functional Communication ($F(1,38) = .155, p = .696$) and posttests of Functional Communication ($F(1,38) = .313, p = .579$). Therefore, we assume there is homogeneity of variances for both the pre- and posttest variables.

The means and standard deviations of Functional Communication scores by time and group are displayed in Table 13. A two-way repeated measures mixed factorial ANOVA was conducted to the main effect for group (summer), time (pre- and posttest), and their interaction, (Table 14).

Table 13

Means and Standard of Functional Communication Scores by Time and Summer

	Time					
	Pretest			Posttest		
	Functional			Functional		
	Communication			Communication		
Summer	<i>M</i>	<i>SD</i>	<i>N</i>	<i>M</i>	<i>SD</i>	<i>N</i>
Summer	43.80	6.61	20	45.80	8.82	20
2017						
Summer	39.05	7.93	20	40.65	7.42	20
2018						
Total	41.43	7.23	40	43.22	8.46	40

Table 14

ANOVA on Functional Communication Scores by Time and Summer

Source	<i>df</i>	<i>F</i>	<i>p</i>	η^2
Within subjects				
Time	1	3.76	.060	.090
Time x Summer	1	.046	.831	.001
Error	38	(17.25)		
Between subjects				
Summer	1	5.06	.030	.117
Error	38	(96.91)		

The main effect for group (summer) was significant $F(1, 38) = 5.06, p < .05 (\eta^2 = .117)$. This indicates that there was an overall difference between the means of two groups on both the pre- and posttest scores of Functional Communication. The mean for the combined pre- and posttest scores for Functional Communication in summer 2017 $([43.80+45.80/2] M = 44.80, SD = 7.18)$ was greater than summer 2018 group $([39.05+40.65/2] M = 39.85, SD = 7.77)$. This demonstrates that both groups (summer 2017 and summer 2018) did not show similar statistically significant differences between the pre- and posttest scores of Functional Communication. Therefore, the conclusion is to reject the null hypothesis and conclude that there was a statistically significant difference between groups (summer 2017 versus summer 2018).

The main effect for time was not significant $F(1, 38) = 3.76, p > .05 (\eta^2 = .090)$ and indicates for the combined samples, that the Functional Communication scores did not significantly increase from pretest ($M = 41.43, SD = 6.61$) to posttest ($M = 43.22, SD = 8.46$). This demonstrates the null hypothesis failed to be rejected and concludes that the combined groups (summer 2017 and summer 2018) did not show statistically significant differences between the pre- and posttest of Functional Communication (see Figure 7). The effect for time x summer interaction for Functional Communication is not significant $p > .05$; therefore, it is not necessary to analyze their interaction.

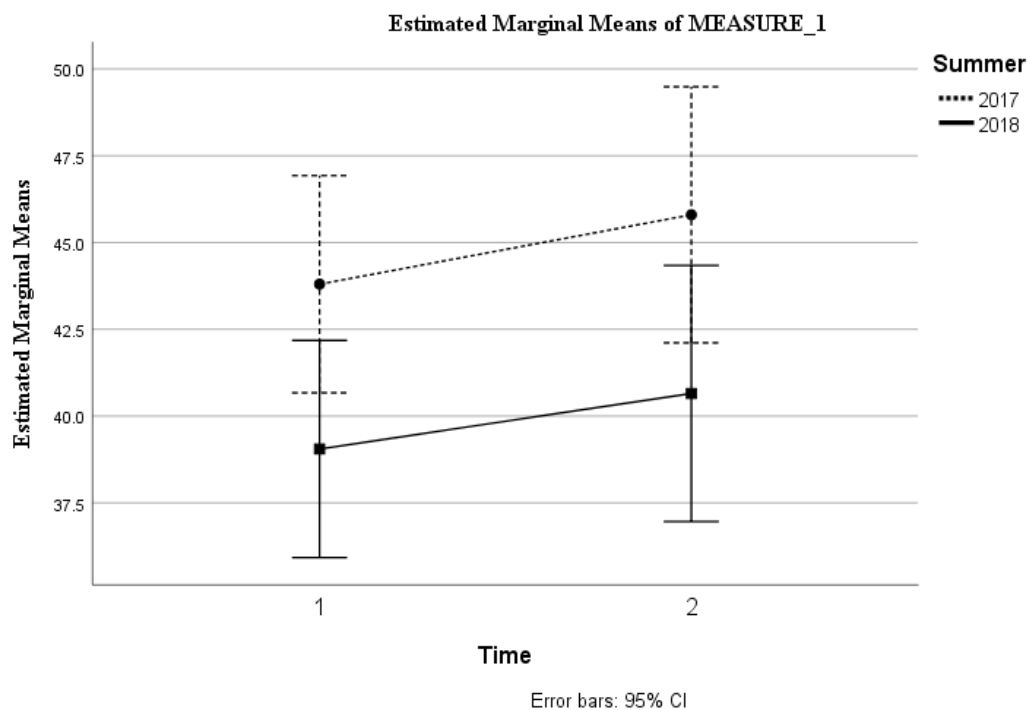


Figure 7. Pre- and posttest means of Functional Communication.

Summary

The research question was explored and statistically answered in the study. All seven DVs were analyzed separately in their relation to the IV. The two-way repeated measures ANOVA showed that the null hypothesis was rejected for five of the DVs, Hyperactivity, Aggression, Conduct problems, Attention problems, and Adaptability. The five DVs reported a statistically significant difference between pre- and posttest scores. The null hypothesis failed to be rejected for two of the DVs, Anxiety and Functional Communication. The two DVs did not show a statistically significant difference between pre- and posttest scores.

In Chapter 5 I will include a summary of the study and conclusions based on the results presented in Chapter 4. I will also discuss the data and present implications for social change and future research.

Chapter 5: Discussion, Conclusions, and Recommendations

The purpose of this research study was to assess whether the STP is effective in improving the noncompliant behavior in OJ behaviorally challenged children. The IV was the STP, and the DVs were the specific behaviors of hyperactivity, aggression, conduct, anxiety, attention, adaptability, and functional communication, as measured by the BASC-3 of the OJ children. Hyperactivity, aggression, conduct, anxiety, and attention were studied to see if they decreased as a result of attending the STP. Adaptability and functional communication were studied to see if they increased as a result of attending the STP.

I explored and statistically answered the research question in the study. All seven DVs were analyzed separately in their relation to the IV. The results of the two-way, repeated measures, ANOVA showed that the null hypothesis for time (i.e., pre- to posttest) was rejected for five of the DVs: hyperactivity, aggression, conduct problems, attention problems, and adaptability. The five DVs indicated a statistically significant difference between pre- and posttest scores. In the DV variable of functional communication, the null hypothesis for group was rejected. This finding showed there was an overall difference between the means of the two groups on both the pre- and posttest scores; however, it did not show a significance for time from pre- to posttest. The null hypothesis failed to be rejected for the DV of anxiety. There was a decrease in anxiety from pre- to posttest; however, the difference was not statistically significant.

Interpretations of the Findings

In Chapter 2, I presented the extant research showing the effectiveness of the STP. The specialized, behavioral point system of the STP has been shown to improve the noncompliant behaviors of behaviorally challenged children (Sibley et al., 2012). STP was also effective in improving symptoms for children with ADHD and ASD, ranging from preschool-aged children to adolescents (Graziano et al., 2014; Mitchell et al., 2015; Sibley et al., 2011). However, due to religious reasons, children of the OJC are unable to attend the previously researched STPs. Therefore, I conducted this study to determine if the faith-based STP was effective for behaviorally challenged OJ children. The results of this study showed that the STP was effective in improving the behaviors of the OJ children related to the five DVs of hyperactivity, aggression, conduct problems, attention problems, and adaptability from pre- to posttest. However, the DV of anxiety was not significantly improved from pre- to posttest. For the DV of functional communication, the mean scores from the pre- and posttests of summer 2017 were significantly higher than the mean scores of the pre- and posttests of summer 2018; however, neither group showed significant improvement from pre- to posttest.

From the perspective of the theoretical framework of behaviorism and the aspect of operant conditioning, rewards and consequences directly influence behavior (Skinner, 1974). Therefore, as shown in the results of the current study, the immediate rewards and consequences meted out through the unique point system of the STP directly influenced and improved the behaviors of the children who had previously attended the STP (see Graziano et al., 2014; Mitchell et al., 2015; Sibley et al., 2011). The results of this study

show that the faith-based STP is effective in improving the behaviors of the children from OJ community.

The findings showed that for five of the DVs, the STP was effective in improving the behaviors of the OJ children from pre- to posttest. The three external behaviors of the DVs of hyperactivity, aggression, and conduct problems, as measured in the Externalizing Problems category of the BASC-3, were improved and the symptoms significantly decreased from pre- to posttest. Attention problems, as measured in the Behavior Symptoms Index of the BASC-3, were also improved and the symptoms significantly decreased from pre- to posttest. Additionally, adaptability, as measured in the Adaptive Skills category of the BASC-3, were improved and the symptoms significantly increased from pre- to posttest. The DV of functional communication was also measured in the Adaptive Skills category of the BASC-3 and did not significantly increase from pre- to posttest. However, there was a significant difference between groups because the mean scores of summer 2017 were significantly higher than the mean scores of summer 2018.

In contrast, the DV of anxiety, as measured in the Internalizing Problems category of the BASC-3, showed no significant decrease from pre- to posttest. However, the means of the pretest scores were in the average range which shows the children did not struggle significantly in this area when entering the program. Also, anxiety is primarily an internal emotional struggle that would understandably be less susceptible to being significantly impacted by the rewards and consequences administered during the

participation of the STP. This is further evidenced by the category of Internalizing Problems in which anxiety is placed.

In addition to the results from pre- to posttest demonstrating the statistical significance or lack thereof for each of the seven DVs, I also found clinical significance related to the *t* scores of the BASC-3. For the DVs of hyperactivity, aggression, conduct problems, anxiety, and attention problems, a higher score indicates a stronger manifestation of the behavior. The *t* scores of 70 and above are in the clinically significant range and indicate a strong level of maladjustment of the given behavior, while *t* scores between 60 and 69 are in the at-risk range, which illustrates the issue may not be severe enough but it requires monitoring. *t* scores of 41 to 59 are categorized in the average range, and approximately, two thirds of the population score in the average range (Reynolds & Kamphaus, 2015).

For the category of adaptive skills, a lower score indicates a stronger deficiency of the specific category of behavior. A *t* score of 30 and below is categorized as clinically significant, *t* scores between 31 to 40 are in the at-risk category, and *t* scores of 41 to 59 are categorized in the average range.

For the DV of hyperactivity, the combined means pretest score ($M = 64.4$) of summer 2017 and summer 2018 that was in the at-risk range and decreased significantly during the posttest scores of summer 2017 and summer 2018 with a combined means score ($M = 57.7$) that put the overall group scores in the average range. This demonstrates a significant clinical decrease for the overall group in hyperactivity.

The DV of aggression had a combined means pretest score ($M = 72.5$) of summer 2017 and summer 2018 that was in the clinically significant range and that decreased significantly during posttests to a combined means score ($M = 65.1$) in the at-risk range. This further demonstrates significant clinical decrease for the overall group in aggression.

The DV of conduct problems had a combined means pretest score ($M = 62.4$) of summer 2017 and summer 2018 that was in the at-risk range and it decreased significantly during posttests to a combined means score ($M = 57.1$) that is in the average range. This further demonstrates significant clinical decrease for the overall group in conduct problems.

Comparatively, the DV of anxiety had a combined means pretest score ($M = 53.3$) of summer 2017 and summer 2018 that was in the average range and it did not decrease significantly during posttests, which had a combined means score ($M = 50.6$) that is also in the average range. The lack of significant clinical decrease matches the lack of statistically significant decrease for anxiety. However, the average range of the pretest scores demonstrates that anxiety was not an area of significant struggle for the children which further explains why there was a lack of significant decrease in the postscores.

The DV of attention problems had a combined means pretest score ($M = 59.9$) of summer 2017 and summer 2018 that was in the high area of the average range and it decreased significantly during posttests to a combined means score ($M = 54.7$) that is also in the average range. This does not demonstrate a shift of the group from pretest to a different category for posttest, but it does demonstrate a significant clinical decrease for the overall group means within the average range in attention problems.

The DV of adaptability had a combined means pretest score ($M = 36.5$) of summer 2017 and summer 2018 that was a higher score in the at-risk range and it increased significantly during posttests to a combined means score ($M = 40.2$) that was lower but still in the at-risk range. This also does not demonstrate a shift of the mean scores of the groups from pretest to a different clinical category, but it does demonstrate a significant clinical decrease for the overall groups within the at-risk range in adaptability.

The DV of functional communication showed a significant difference in groups means pre- and posttest scores ($M = 44.80$) in summer 2017 that was in the average range and was greater than the means of the combined summer 2018 group means ($M = 39.85$) that was in the at-risk range. This demonstrates a significant difference in the overall groups of summer 2017 and summer 2018 in functional communication. In regard to the decrease from pre- to posttest means, summer 2017 and summer 2018 had a combined means pretest scores ($M = 41.4$) of summer 2017 and summer 2018 that was in the average range and it did not increase significantly during posttests to a combined means score ($M = 43.2$) that is also in the average range. The lack of significant clinical increase over time matches the lack of statistically significant increase over time in functional communication.

Limitations of the Study

One of the limitations of the study was that all the research participants were only from the OJ community. The uniqueness of this study lies in the fact that it was conducted on participants from the OJ community; however, this created a limitation.

Another limitation was that all participants were males. These limitations hindered the ability to generalize the results to children from other communities.

Another limitation of the study was that the archival data were provided by the parents of the children who have the most knowledge of their children's behaviors but could also be biased toward their children. The parents also likely hoped their children did better as a result of attending the STP, which may have influenced their posttest scores.

Another limitation of this study was missing information from the research participants of the study. The specific family dynamics of whether the parents of the child were married or divorced were missing. The family history of each child, which is often a factor, was also missing.

Recommendations

My recommendation for future research would be to study the results of the rest of the categories of the BASC-3 that were not analyzed in this study. Specifically, the category of Social Skills. Social skills is a target behavior for the STP of the OJ community and would benefit from being analyzed. The other areas of BASC-3 that could be analyzed include the categories of Depression, Somatization, Atypicality, Withdrawal, Leadership, and Activities of Daily Living. Further research on these categories may highlight further benefits of attending the STP for the OJ community.

Another recommendation for further research is to conduct a more comprehensive longitudinal study. Ultimately, the goal of attending the STP is to help the children integrate their improved behavior over the long term. Therefore, I would recommend

conducting a study on the children's behavior utilizing a posttest at a later time in the year, possibly 6 months or more after the completion of the STP. Furthermore, future researchers may want to include qualitative data to better understand the family dynamics and parents' experiences at home with their children during the summer of attending the STP.

Implications

One implication of this research study is that there is now empirical evidence that the STP is a highly effective method in treating behaviorally challenged children in the OJ community. Having empirical evidence demonstrating there is a research-based program that is geared to the behaviorally challenged children of the OJ community is a positive social change. Due to religious reasons, children of the OJ community are limited in their ability to attend other STPs. The STP under study was a faith-based program geared specifically to children of the OJ community. When behaviorally challenged children of the OJC have a research-based method of treatment that is shown to be effective, it gives them a better opportunity to develop into more productive individuals in society. The children will have an easier time complying with commands from their parents and teachers, which can possibly aid in them developing into better people and students.

Conclusion

The purpose of this study was to examine the effectiveness of the faith-based STP exclusive to the OJ community. I employed a quantitative, ex post facto, repeated measures design to determine the difference in scores for seven DVs from pre- to posttest

for children attending the program. The results showed there was a significant decrease in the behaviors of hyperactivity, aggression, conduct problems, attention problems, and adaptability. This finding indicates the STP was effective in improving a wide range of behaviors of the children attending the program. There was no significant improvement from pre- to posttest in anxiety and functional communication. This finding shows the STP was not able to elicit statistically significant improvement in these areas of behavior for the children. Future researchers can explore the area of social skills and other variables measured by the BASC-3. Additionally, future researchers can study the long-term impact of attending the STP for the OJ children by administering another posttest at least 6 months after the completion of the STP. In all, the findings of this study show that the STP is an evidence-based program that is effective in improving the external behaviors of behaviorally challenged OJ children.

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