TREATMENT INTEGRITY AND CHILD OUTCOMES: CONJOINT BEHAVIORAL CONSULTATION IN AN URBAN SETTING WITH CLIENTS OF ETHNIC MINORITY STATUS

By

TAMMI JEAN BECKMAN

Bachelor of Science in Social Work
University of Nebraska - Kearney
Kearney, Nebraska
2001

Education Specialist in School Psychology
University of Nebraska - Kearney
Kearney, Nebraska
2004

Submitted to the Faculty of the
Graduate College of the
Oklahoma State University
in partial fulfillment of
the requirements for
the Degree of
DOCTOR OF PHILOSOPHY
December, 2008

TREATMENT INTEGRITY AND CHILD OUTCOMES: CONJOINT BEHAVIORAL CONSULTATION IN AN URBAN SETTING WITH CLIENTS OF ETHNIC MINORITY STATUS

Dissertation Approved:

Dr. Georgette Yetter

Dissertation Adviser

Dr. Terry A. Stinnett

Dr. Gary Duhon

Dr. Charles Robert Davis

Dr. A. Gordon Emslie

Dean of the Graduate College

ACKNOWLEDGMENTS

This research study would not have been possible without the assistance and support of many people. I would like to thank the committee, especially, Dr. Georgette Yetter for all of her time, hard work, and support on this project. Also, thank you Dr. Terry Stinnett, Dr. Gary Duhon, and Dr. C. Robert Davis. Your insights and perspectives were much appreciated. This was a great learning experience and you are all great teachers.

I would like to thank my family for their encouragement and support on this adventure that took my children and I far away from home. Thank you to my parents, Pat and Bruce Ohmstede for teaching me the value of hard work and persistence. Thank you for being such incredibly loving and supportive parents. You have helped me become the person I am today. I would like to thank my sisters and sister-in-law for their loving support and assistance in all that I have achieved in my life. Most importantly, I would like to thank my children, Treyven and Cambrie, for being my inspiration and making me smile no matter how difficult things were. I love you both with all of my heart. Last, but not least, I would like to thank my husband, Sean, for believing in me and providing me with the encouragement and support I needed to help make my dream come true.

Finally, I would like to thank several of my dearest friends and colleagues who have been a source of support during my graduate school experiences. Thank you Lezlee, Heather, Lauren, Lizette, and Holly for being there for my family and I when we were so

far away from “home”. This would have been a much more difficult task without your constant encouragement, support, and most of all help with my children. Thank you to all of my family and friends for believing in me and supporting me along the way.

TABLE OF CONTENTS

Chapter Page

LIST OF TABLES

LIST OF FIGURES

Figure Page

CHAPTER I

INTRODUCTION

Approximately 14%-20% of the children in the general population are reported to exhibit challenging behaviors in the home and/or school setting (Brandenburg, Friedman, & Silver, 1990; Reichle et al., 1996). Challenging behavior in children has been defined as behaviors that involve acts that result in injury to self or others, damage physical surroundings, interfere with skill acquisition, or that isolate the child (Doss & Reichle, 1991; Reichle et al., 1996). Research has indicated that challenging behavior in young children is not typically outgrown, but actually has a high potential for getting worse over time (Kazdin, 1993). Current estimates of the number of children exhibiting challenging behaviors and knowledge of the prognosis for these behavior concerns provides strong evidence for the need for parents and teachers to understand and implement effective behavior management strategies.

Many children with academic, social, behavioral, and/or emotional concerns do not receive the services they need. Approximately 70% of the children in need of mental health services in the United States do not receive them (U.S. Congress OTA, 1991). Family characteristics and logistical barriers often prevent families from accessing and maintaining services for their children. For many children, the school setting is the sole provider for mental health services (Burns et al., 2004). Thus, delivering intervention

services through a model that encompasses home-school collaboration appears to be the most effective way to meet the needs of children and families who are involved in the educational system. Many of the same behavioral intervention services offered through community-based programs can be provided through behavioral consultation within the educational system.

Many of the most effective and widely used behavioral interventions for children with behavior problem are based on the principles of social learning theory and behavior modification (Maughan, Christiansen, Jenson, Olympia, & Clark, 2005). These programs are based on the assumption that children's appropriate and inappropriate behaviors are maintained by social agents in their environment (Maughan et al., 2005). Some of the most effective treatments that have been reported in the literature for behaviorally challenging children include the following key components: (1) early and sustained interventions, (2) focus on the home and school environments, and (3) consistent efforts to diminish negative behavior while teaching and supporting more adaptive social behaviors (Reid & Patterson, 1991; Short & Shapiro, 1993; Webster-Stratton, 1993).

Some of the most common behavior management strategies used in the school setting that have received research support for being effective when dealing with challenging behavior include token economies, rewards, response cost, and curriculum modifications (Abramowitz & O'Leary, 1991; DuPaul & Stoner, 1994). The school-home note is another intervention that has been shown to increase appropriate behaviors and decrease inappropriate behaviors exhibited by children in the classroom (Kelley, 1990). School-home notes promote communication and shared responsibility between the parents, teachers and students. Research has supported the school-home note as being an

effective intervention for managing challenging behavior exhibited by children who range in age from preschool through high school (Schumaker, Hovell, & Sherman, 1977; McCain & Kelley, 1993). The school-home note may not only be effective in dealing with the child's behavior, but may also encourage collaboration between the school and home settings.

Home and school represent two of the most powerful influences in children's lives. School-aged children spend almost all of their time either in the home or school setting where the parents and school personnel are primarily responsible for their behavior. Therefore, building the relationship between these two settings (home and school) is of utmost importance when setting goals to address a child's educational and behavioral needs. Research indicates that students benefit when there is a collaborative relationship between families and educators (Clark & Fiedler, 2003).

Reviews of the parent involvement literature suggest that active parent involvement is a key factor in a child's success at school. Specifically, it has been reported that active parent participation is related to factors such as increased student achievement and fewer discipline problems in the classroom and at home (Christenson, 1995; Christenson, Rounds, & Franklin, 1992). Specific features of strong home – school partnerships include (a) a belief in a shared responsibility for educating and socializing children, (b) an emphasis on the quality of interactions among the families and school personnel, and (c) a focus on mutually identifying solutions that support learning and adjustment (Sheridan, Eagle, Cowan, & Mickleson, 2001).

Gains in student performance are greatest when interventions focus on the reciprocal relationship between home and school rather than focusing only on the

classroom or home environment. Positive interactions between parents and school personnel that are based on a common interest enhance the likelihood that behavioral interventions will be effective (Clark & Fiedler, 2003). The following discussion provides a clearly identified process for incorporating all of the key factors that lead to a student's success in a behavioral consultation model.

Conjoint Behavioral Consultation (CBC) is a conceptual and practical extension of a traditional approach to Behavioral Consultation (BC). CBC is "a structured, indirect form of service delivery, in which parents and teachers are joined to work together to address the academic, social, or behavioral needs of an individual for whom both parties bear some responsibility." (Sheridan & Kratochwill, 1992, p. 122) One of the primary features of CBC is that the parents and teachers are joint consultees who monitor the effects of daily events on children's behavior. CBC attempts to develop effective partnerships and collaborative relationships between parents and educators (Christenson & Sheridan, 2001).

CBC has two major theoretical bases: ecological-systems theory (Bronfenbrenner, 1979) and behavioral theory. CBC fits into the ecological systems theory in that it recognizes that children function within and across various systems in their environments. The two primary systems in a child's life are home and school. Thus, when working with children, it is important to focus on the primary settings that influence that child's behaviors.

Primary components of CBC that reflect the behavioral theory include the understanding that children's behaviors are a function of the environment in which they occur, a strong focus on identifying and changing observable behaviors, and using

evidence-based techniques to change behavior (Sheridan et al., 1996). Behavioral theory is present throughout all four stages of the CBC process. Specifically, the active involvement of the teacher and parent, the identification of an observable behavior in the Problem Identification stage, data collection on the target behavior throughout all four stages, and using evidence-based techniques to change behavior during the Treatment Implementation stage.

The stages of CBC are extensions of the same four stages involved in BC but they also involve the caregiver component. The first stage of CBC is the Conjoint Problem Identification (CPI) stage. The CPI interview is conducted by the consultant with the teacher and caregiver in order to identify and prioritize concerns, determine the contextual factors that contribute to the behavior in both settings, and to define a treatment goal and progress monitoring procedures to examine progress. The second stage, Conjoint Problem Analysis (CPA) consists of another interview conducted by the consultant with the teacher and caregiver to evaluate baseline data, reevaluate the original treatment goal, and design an intervention plan. Immediately following the CPA stage is the Conjoint Treatment Implementation (CTI) stage, which consist of the teacher and caregiver implementing and monitoring the intervention that was developed during the CPA interview. The final stage is the Conjoint Treatment Evaluation (CTE) stage. The CTE stage involves a final interview by the consultant with the teacher and caregiver to evaluate the intervention effectiveness and address maintenance and generalization issues. (Appendix J contains the CPI, CPA and CTE objective checklists).

Research has indicated that CBC is an effective and acceptable model of service delivery for teachers and parents addressing the emotional, social, behavioral and

academic needs of students (Sheridan, 1997; Sheridan, Eagle, Cowan, & Mickelson, 2001). Several small-N studies have found CBC to be effective in changing client behavior, i.e. social withdrawal, failure to complete homework assignments, disruptive play behaviors in children with ADHD, and nighttime fears (e.g. Auster, Feeney-Kettler, & Kratochwill, 2006; Sheridan & Colton, 1994; Kratochwill & Sheridan, 1990; Weiner, Sheridan, & Jensen, 1998). A large scale study conducted by Sheridan, Eagle, Cowan, & Mickelson (2001) also indicated that CBC was an efficacious and acceptable model of service delivery.

Although there is support for the effectiveness and acceptability of CBC, most of the studies have been conducted with children and families of majority who come from middle-class families. According to Sheridan (2000), there is no empirical base supporting the use of CBC in multicultural situations or when one or more participants represents diversity. The first investigation of CBC with minority clients was part of a large scale study examining the effectiveness and acceptability of the CBC process with children who represented various forms of diversity, i.e. ethnicity, socioeconomic status, family composition, maternal education level, and language spoken in the home (Sheridan, Eagle, Doll, 2006). The results of the study conducted by Sheridan et al. (2006) indicated CBC was an effective and acceptable model of service delivery for children representing diversity. Some limitations of the included a small number of children with specific diverse characteristics and subjective measures of diversity indicators that relied only on parent report.

There is limited research on the effectiveness of the CBC model with clients of minority. In addition, to this researcher's knowledge, there are no studies that examine

the effectiveness and acceptability of the CBC model with clients of ethnic minority status, low socioeconomic status in an urban setting in the Southeastern part of the United States.

Purpose of this Study

This study proposed to extend the CBC literature to working with families and teachers of minority status in an urban school district. The present study investigated several possible outcomes for implementing an empirically supported intervention within the context of CBC for children exhibiting externalizing behavior concerns in the school and home settings. First, this study examined the extent to which the behavioral intervention implemented in the context of CBC was effective in reducing the frequency of the targeted externalizing behaviors exhibited by the child at school. Second, this study examined the extent to which the behavioral intervention implemented in the context of CBC was effective in reducing the frequency of the targeted externalizing behaviors exhibited by the child at home. Third, this investigation examined the level of procedural and treatment integrity for the consultees' participation and implementation of the behavioral intervention, when carried out in the context of CBC. Finally, this study identified the degree to which the CBC model was an acceptable form of service delivery when working with ethnic minority families and teachers in a low-SES urban school district.

CHAPTER II

REVIEW OF LITERATURE

The following review of literature provides strong evidence for the importance of maintaining a collaborative relationship between families and school personnel when working with school-age children. This chapter will provide an overview of behavior difficulties experienced by many school aged children, the Behavioral Consultation model often used to address behavior problems in the school and home setting and school characteristic that are related to the development and management of a child's behavior. This chapter will also identify common empirically supported behavioral interventions and how a strong home-school partnership and high levels of treatment integrity can enhance behavioral interventions. Finally, this chapter will discuss the Conjoint Behavioral Consultation (CBC) model and some of the specific reasons why the parent component of this behavioral consultation model is important and the lack of research conducted using the CBC model with clients of minority status. The purpose of the study as well as the research questions and hypotheses for the current study will be outlined in this chapter.

Approximately 70% of the children in need of mental health services in the United States do not receive them (U.S. Congress OTA, 1991). Family characteristics and logistical barriers often prevent families from accessing and maintaining services for their

children. For many children, the school setting is the sole provider for mental health services (Burns et al., 2004). Thus, delivering services through a model that encompasses home-school collaboration appears to be the most effective way to meet the needs of children and families who are involved in the educational system.

Challenging Behavior

Challenging behavior in children has been defined as behaviors that involve acts that result in injury to self or others, damage physical surroundings, interfere with skill acquisition, or that isolate the child (Doss & Reichle, 1991; Reichle et al., 1996). A significant increase in the numbers of children exhibiting these types of behaviors has occurred; with prevalence rates noted around 14%-20% for typical or at-risk children and 13%-30% for children with developmental disabilities (Brandenburg, Friedman, & Silver, 1990; Reichle et al., 1996). Research has indicated that challenging behavior in young children is not typically outgrown, but actually has a high potential for getting worse over time (Kazdin, 1993). Current estimates of the number of children exhibiting challenging behaviors and knowledge of the prognosis for these behavior concerns provides strong evidence for the need for parents and teachers to implement empirically supported behavioral interventions.

Research has shown that behavior problems in children are developed and maintained within their natural environment (Patterson, 1982). Social agents, most often parents, who provide cues and consequences for a child's behavior, play a major role in determining the rates of children's appropriate and inappropriate behaviors (Miller 1975; Strand, 2000). Integrating our understanding of how children learn with our understanding of societal roles and family dynamics has resulted in strong support for

implementing empirically supported interventions that require the involvement of the 'change agents' in the child's environment, i.e. teacher, caregiver (Pehrson & Robinson, 1990).

Behavioral Consultation

The Behavioral Consultation (BC) model was presented by Bergan, 1977 and Kratochwill & Bergan, 1978 as an indirect form of service delivery that involves providing psychological and educational support to a client, i.e. student through a consultee, i.e. teacher who works directly with the client. This method of service delivery can be much more cost effective than direct service delivery because it allows a school psychologist to impact more children than he or she could serve through direct service (Sheridan, Kratochwill, & Bergan, 1996).

The two primary goals of BC are (1) to provide a method for positively impacting a child's presenting problem and (2) to improve the skills of the consultee (Elliot & Sheridan, 1992; Kratochwill & Bergan, 1990). Specific features of BC include: indirect form of service delivery, problem-solving focus, and the development of a collegial relationship between the consultant and consultee (Elliot & Sheridan, 1992). BC is based on the behavior modification theory which involves objective data collection throughout the process in order to measure treatment success. This model plays particular attention to the acceptability and effectiveness of an intervention as well as the skills and resources of the consultee.

The problem solving process of BC occurs throughout four stages. The first stage of BC is known as the Problem Identification (PI) stage. The PI interview involves objectively defining the academic or behavioral concerns of the conslutee and developing

a plan for how the consultee will measure baseline performance on the target behavior (Kratochwill & Bergan, 1978). The second stage of BC is Problem Analysis (PA). PA involves validating the problem, identifying possible variables that might facilitate the problem solution, and devising a plan to solve the problem (Kratochwill & Bergan, 1978). The third stage, Treatment Implementation (TI) involves the consultees implementation of the intervention that was designed during the PA stage in the natural environment (Kratochwill & Bergan, 1978). Finally, the last stage of BC is the Treatment Evaluation (TE) stage. TE consists of evaluating the data collected during the consultation and intervention process to see if the intervention was successful. Discussion of the steps necessary to maintain the positive results is also part of the TE stage (Kratochwill & Bergan, 1978).

Empirical Support for BC. BC has received a substantial amount of empirical support for being an effective model of service delivery in the school setting (Gresham & Kendell, 1987; Medway, 1979; Sheridan, Welch, & Orme, 1996). Gutkin (1980) found that the BC process not only had an effect of child behaviors, but it also improved the skills of the teachers. Kratochwill, Elliot & Busse (1995) reported that BC had a positive impact on a wide range of problems exhibited by children in the school setting. BC typically involves the consultant and teacher consultee, however there has also been research conducted that supports the use of behavioral parent consultation as an effective method of changing child behavior in the home setting (Doll & Kratochwill, 1992; Gmeinder & Kratochwill, 1998; Rotto & Kratochwill, 1994).

School Characteristics Related to Development and Management of Child Behavior

Externalizing behaviors present at an early age tend to persist through the early elementary years (Campbell & Ewing, 1990; Egeland, Kalkoske, Gottesman, & Erickson, 1990; Keenan, Shaw, Delliquadri, Giovanelli, & Walsh, 1998). Children's social behaviors are often influenced and maintained by the structure and interactions within their environment. Therefore, it is important to take a look at the school variables that may be related to the social behaviors a child learns and/or continues to exhibit. A recent push for including children with special needs in the general education setting has created debate about the pros and cons of inclusive education.

Inclusive Education. Inclusive education attempts to integrate the general and special education systems into one to meet the special needs of all children (Skrtic, 1991). Inclusive education involves meeting the needs of children with disabilities, to the maximum extent possible, within a general education classroom of same-age peers with the necessary supports available for both the student and teacher. Some of the common barriers schools face when attempting to implement inclusive education effectively include (a) teaching methods which focus on the middle range of academic achievement, (b) different perceptions and expectations about inclusion, (c) inadequate preparation of teachers to work in inclusive settings, (d) confusion about roles and responsibilities, (e) resistance from some special educators, and (f) lack of coordinated, long-term professional development (Clark et al., 1999; Evans & Lunt, 2002; Rouse & Florian, 1996). The practice of inclusive education brings all students together into one classroom. If this practice is not done with the appropriate amount of support, it could make it difficult for the teacher to interact effectively with the students in his/her classroom.

Teachers working in schools that practice full inclusion as a model of service delivery for students with disabilities may have additional responsibilities that take up a significant amount of time. Research continues to indicate that teachers in inclusive settings are not sufficiently trained to meet the needs of diverse learners or students with disabilities in mainstream classrooms (Kavale & Forness, 2000). Teachers in inclusive settings with children in the general education that are exhibiting academic and behavior concerns may spend much of their time attempting to develop lesson plans and interventions plans that will meet the diverse needs of all the students in his/her classroom.

Teacher Involvement. Most general education teachers have received little or no training in behavior management procedures and report a lack of preparedness in working with children with behavior problems (Heflin & Bullock, 1999; Scruggs & Mastropieri, 1996). The lack of training in behavior management procedures can make it very difficult for a teacher to manage the class effectively, especially if there are children in the classroom who exhibit challenging behaviors. Teachers often work with the school psychologist who serves as the consultant in order to assist them in developing and implementing behavioral intervention plans to help manage the behavior of the entire class or the behavior of a particular student.

The lack of knowledge and experience a teacher has dealing with children who exhibit challenging behavior may not only have an effect on the teacher and particular student, but also the other students in the classroom. Specific school experiences that could be affected by challenging behavior that is not managed appropriately within the classroom include: negative social interactions, a disrupted learning environment, and

minimal peer social interaction. These negative experiences that impact everyone in the school setting can be minimized with the implementation of consistent, empirically supported behavior management strategies.

Empirically Supported Behavior Interventions

Many of the most effective and widely used behavioral interventions for children with behavior problem are based on the principles of social learning theory and behavior modification (Maughan et al., 2005). These programs are based on the assumption that children's appropriate and inappropriate behaviors are maintained by social agents in their environment (Maughan et al., 2005). Some of the most effective treatments that have been reported in the literature for behaviorally challenging children include the following key components: (1) early and sustained interventions, (2) focus on the home and school environments, and (3) consistent efforts to diminish negative behavior while teaching and supporting more adaptive social behaviors (Reid & Patterson, 1991; Short & Shapiro, 1993; Webster-Stratton, 1993).

Some of the most common classroom management strategies that have received research support for being effective when dealing with challenging behavior in the classroom are token economies, rewards, response cost, and curriculum modifications (Abramowitz & O'Leary, 1991; DuPaul & Stoner, 1994). The school-home note is another intervention that has been shown to increase appropriate behaviors and decrease inappropriate behaviors exhibited by children in the classroom (Kelley, 1990). School-home notes promote communication and shared responsibility between the parents, teachers and students. Research has supported the school-home note as being an effective intervention for managing challenging behavior exhibited by children who range in age

from preschool through high school (Schumaker, Hovell, & Sherman, 1977; McCain & Kelley, 1993).

Jurbergs, Palcic, and Kelley (2007) conducted a study to evaluate the effectiveness of school-home notes for increasing academic productivity and on-task behavior of low-income, African American children diagnosed with attention-deficit hyperactivity disorder (ADHD). The findings of Jurbergs and colleagues (2007) study demonstrated that school-home notes were effective in increasing on-task rates and accurate classwork completion for six disadvantaged students. This study also concluded that school-home notes with and without response cost were equally effective, however, parents and teachers preferred the note with the response cost component (Jurbergs et al., 2007). Results of this study suggest that a school-home note can be successfully implemented by low-income families (Jurbergs et al., 2007). The positive findings of the use of a school-home note with families of minority encourages future use of the school-home note not only to increase the appropriate behaviors of the child, but also to enhance levels of parental involvement which has been shown to have several positive effects on a child's educational success.

The literature in child psychology is replete with investigations showing positive relationships between appropriate child behavior and parental use of positive reinforcement contingencies (e.g., verbal praise, physical expression, adult presence); appropriate parental commands; consistent consequences for children's inappropriate behavior (e.g., time out and response cost); and parental consistency (Dore & Lee, 1999; Marion, 1983). Parents who behave predictably and respond appropriately to their children influence them to behave in more socially acceptable ways (Strand, 2001).

Additional research on the effectiveness of interventions used to address challenging behaviors also show strong support for the use of incentives to increase positive behaviors and the use of aversives to decrease the occurrence of negative behavior (Bergan, 1990; Martens & Muller, 1990). Behavioral interventions will be most effective when the primary components of effective interventions are implemented consistently across the child's primary settings.

Home-School Partnership

Home and school represent two of the most powerful influences in children's lives (Christenson & Conoley, 1992). School-aged children spend a significant amount of time in the educational setting where school personnel are primarily responsible for their behavior. Therefore, building the relationship between a child's primary settings (home and school) is of utmost importance when setting goals to address a child's educational and behavioral needs. Research indicates that students benefit when there is a collaborative relationship between families and educators (Clark & Fiedler, 2003).

Reviews of the parent involvement literature suggest that active parent involvement is a key factor in a child's success at school. Specifically, it has been reported that active parent participation is related to factors such as increased student achievement and fewer discipline problems in the classroom and at home (Christenson, 1995; Christenson, Rounds, & Franklin, 1992). Specific features of strong home – school partnerships include (a) a belief in a shared responsibility for educating and socializing children, (b) an emphasis on the quality of interactions among the families and school personnel, and (c) a focus on mutually identifying solutions that support learning and adjustment (Sheridan, Eagle, Cowan, & Mickleson, 2001).

Gains in student performance are greatest when interventions focus on the reciprocal relationship between home and school rather than focusing only on the classroom or home environment (Christenson & Christenson, 1998). Positive interactions between parents and school personnel that are based on a common interest enhance the likelihood that behavioral interventions will be effective (Clark & Fiedler, 2003). Another factor that plays an important part in the effectiveness of a behavioral intervention involves the intervention being implemented as intended, i.e. treatment integrity.

Treatment Integrity

Treatment integrity refers to the degree to which the independent variable is manipulated as intended (Gresham, 1997; Gresham, Gansle, & Noell, 1993; Yeaton & Sechrest, 1981). Armstrong, Ehrhardt, Cool, & Pollen (1997) indicated that treatment integrity is a key component in outcome-based research because it helps the readers evaluate the practical and scientific importance of the results, allows for replication of the study, and allows for future investigators to expand on the procedures that were used. In many studies, treatment integrity data has been linked to behavioral outcomes (Sterling-Turner, Watson, & Moore, 2002; Noell, Gresham, & Gansle, 2002). Even though an obvious need for monitoring and reporting treatment integrity data in outcome-based research has been suggested, a meta-analysis of studies conducted between January, 1995 and August, 1999 indicated only about 50% of the articles mentioned how integrity was monitored and only about 18.5% actually reported numerical data on how integrity was monitored (Gresham, Macmillan, Beebe-Frankenberger, & Bocian, 2000).

Treatment Integrity in the Schools. The collection of treatment integrity data for behavioral interventions implemented in the schools is of particular interest because consultation is the primary method of service delivery in the school setting (Luiselli & Diament, 2002). A collection of previous research has indicated that teachers who implement classroom-based interventions may not do so with adequate levels of treatment integrity (Mortenson & Witt, 1998; Noell, Witt, Gilbertson, Ranier, & Freeland, 1997; Noell, Witt, LaFleur, Mortenson, Ranier, & LeVelle, 2000; Wickstrom, Jones, LaFleur, & Witt, 1998; Witt, Noell, LaFleur, & Mortenson, 1997). Performance feedback has been identified in the literature as being an effective method for ensuring a high level of treatment integrity (Mortenson & Witt, 1998; Noell et al., 1997; Noell et al., 2002; Noell, Witt, Slider, Connell, Gatti, & Williams, 2005; Witt et al., 1997). Hagermoser, Sanetti, Luiselli, & Handler (2007) conducted a single-subject study comparing the effects of verbal performance feedback and verbal plus graphic performance feedback on the implementation of a student behavior support plan. Findings from the study conducted by Hagermoser et al., (2007) indicated a higher level of treatment integrity was produced when the combination of verbal and graphic performance feedback was given to the teachers implementing the behavior support plan.

Treatment Integrity at Home. Although the clinical literature identifies specific empirically-supported interventions effective for children with behavior difficulties, in real-life settings the effectiveness of clinical interventions is often lower than desired. One factor that contributes to the failure to attain behavioral goals can be attributed to parental failure to follow through with their children's treatment (Kazdin, Mazurick, & Siegel, 1994; Prinz & Miller, 1994). The reasons for the lack of parental follow-through

are not yet completely understood. In some instances, treatment integrity may be compromised by insufficient parents' willingness to carry out the recommended interventions. In other cases, parents may lack the ability to participate effectively in their children's training programs.

Arkoosh, Derby, Wacker, Berg, McLaughlin, & Barretto (2007) conducted a study with parents in the home setting to evaluate the effect of treatment integrity on outcomes obtained through functional communication training. Arkoosh et al. (2007) reported findings that are consistent with previous research that has been conducted in the schools, i.e. higher levels of treatment integrity lead to more positive results during treatment. Specific areas of treatment integrity that were measured in this study included: treatment integrity for differential reinforcement of communication, treatment integrity for differential reinforcement of other social behaviors, and the integrity for the response reduction contingency. Arkoosh et al. (2007) pointed out an interesting finding from there study which indicated consistently low treatment integrity data for the response reduction contingency for all students. Thus, indicating that if reinforcement procedures are used consistently, the use of response reduction procedures may not add a major effect on the effectiveness of the treatment (Arkoosh et al., 2007).

Behavioral interventions implemented with integrity have the potential for being very successful in managing challenging behavior exhibited by children. However, one of the primary concerns for making sure these interventions are effective relate to how these behavioral interventions should developed and implemented within a child's primary setting. One of the most common forms of service delivery used to address the academic

and behavioral needs of children is through consultation in the home and/or school settings.

Conjoint Behavioral Consultation

Definition and Theoretical Bases. Conjoint Behavioral Consultation (CBC) is a conceptual and practical extension of a traditional approach to Behavioral Consultation (BC). CBC is "a structured, indirect form of service delivery, in which parents and teachers are joined to work together to address the academic, social, or behavioral needs of an individual for whom both parties bear some responsibility." (Sheridan & Kratochwill, 1992, p. 122) One of the primary features of CBC is that the parents and teachers are joint consultees who monitor the effects of daily events on children's behavior. CBC attempts to develop effective partnerships and collaborative relationships between parents and educators (Christenson & Sheridan, 2001).

CBC has two major theoretical bases: ecological-systems theory (Bronfenbrenner, 1979) and behavioral theory. CBC fits into the ecological systems theory in that it recognizes that children function within and across various systems in their environments. The two primary systems in a child's life are home and school. Thus, when working with children, it is important to focus on the primary settings that influence that child's behaviors.

Primary components of CBC that reflect the behavioral theory include the understanding that children's behaviors are a function of the environment in which they occur, a strong focus on identifying and changing observable behaviors, and using evidence-based techniques to change behavior (Sheridan et al., 1996). Behavioral theory is present throughout all four stages of the CBC process. Specifically, the active

involvement of the teacher and parent, the identification of an observable behavior in the PI stage, data collection on the target behavior throughout all four stages, and using evidence-based techniques to change behavior during the TI stage.

Stages of CBC. The stages of CBC are extensions of the same four stages involved in BC but they also involve the caregiver component. The first stage of CBC is the Conjoint Problem Identification (CPI) stage. The CPI interview is conducted by the consultant with the teacher and caregiver in order to identify and prioritize concerns, determine the contextual factors that contribute to the behavior in both settings, and to define a treatment goal and progress monitoring procedures to examine progress. The second stage, Conjoint Problem Analysis (CPA) consists of another interview conducted by the consultant with the teacher and caregiver to evaluate baseline data, reevaluate the original treatment goal, and design an intervention plan. Immediately following the CPA stage is the Conjoint Treatment Implementation (CTI) stage, which consist of the teacher and caregiver implementing and monitoring the intervention that was developed during the CPA interview. The final stage is the Conjoint Treatment Evaluation (CTE) stage. The CTE stage involves a final interview by the consultant with the teacher and caregiver to evaluate the intervention effectiveness and address maintenance and generalization issues. (Appendix J contains the CPI, CPA and CTE objective checklists).

Empirical Support for CBC. Research has indicated that CBC is an effective and acceptable model of service delivery for teachers and parents addressing the emotional, social, behavioral and academic needs of students (Sheridan, 1997; Sheridan, Eagle, Cowan, & Mickelson, 2001). Several small-N studies have found CBC to be effective in changing client behavior, i.e. social withdrawal, failure to complete homework

assignments, disruptive play behaviors in children with ADHD, and nighttime fears (e.g. Auster, Feeney-Kettler, & Kratochwill, 2006; Sheridan & Colton, 1994; Kratochwill & Sheridan, 1990; Weiner, Sheridan, & Jensen, 1998). A large scale study conducted by Sheridan, Eagle, Cowan, & Mickelson (2001) also indicated that CBC was an efficacious and acceptable model of service delivery.

The first study to examine the effectiveness of CBC was conducted by Sheridan, Kratochwill, & Elliot in 1990 with four socially withdrawn children in the Midwest. Sheridan and colleagues (1990) examined the effects of a social intervention implemented in the context of CBC and reported that CBC was an effective model of service delivery and showed stronger treatment gains and generalization when compared to the effects of teacher-only behavioral consultation.

Another study conducted by Galloway & Sheridan (1994) investigated the effectiveness of CBC with six academically underachieving children. Results of this study indicated positive treatment effects for students who had previously often failed to complete math assignments on time or with acceptable levels of accuracy. The results of this study also indicated that the improvement factors are not simply due to the information provided, but to the nature of the relationship that develops during the CBC process (Sheridan & Colton, 1994).

Sheridan & Colton (1998) found that a fading procedure implemented within the context of CBC was effective when working with a six-year old boy who exhibited childhood anxiety. Colton & Sheridan (1998) examined the effects a behavioral social skills intervention plan implemented in the context of CBC with three white male

students. Results of this study indicated the treatment was successful, however, there was little evidence of maintenance over time.

Results of a study conducted by Weiner, Sheridan, & Jenson (1998) indicated positive treatment effects for a structured program that used CBC to increase the homework completion rates of five children. The findings of this study also indicated that both parents and teachers found the intervention and consultation process to be an acceptable treatment for the initial concerns.

A study conducted by Wilkinson (2005) found positive treatment effects when a self-management plan was implemented in the context of CBC with two students who exhibited externalizing behaviors. The study conducted by Wilkinson (2005) included two case studies with follow up data indicating the treatment was effective.

Auster, Feeney-Kettler, & Kratochwill (2006) examined the effects of the treatment of childhood anxiety disorders within the context of the CBC process. This study was a case example for the treatment of Selective Mutism (SM) with a five-year old boy. Auster & colleagues (2006) concluded that the CBC model of service delivery is an effective approach for implementing treatments for childhood anxiety disorders.

One large scale study has been conducted to examine the effectiveness and acceptability of the CBC process. Sheridan, Eagle, Cowan & Mickelson (2001) reported results of a 4-year study evaluating the effects of CBC with a large number of children in the school setting. Results of this study indicated that CBC was an efficacious and acceptable model of service delivery.

Several studies assessing the social validity of CBC provide evidence that both teachers and parents prefer the CBC model over teacher-only or parent-only consultation

(Freer & Watson, 1999). The primary component of CBC that sets it apart from the traditional BC model is the incorporation of the caregiver into the consultation process. As previously mentioned, this addition of the caregiver component has not only been proven to be more effective than teacher-only consultation, but also has been reported to be more acceptable than teacher-only consultation. The importance of the family component when addressing behavior concerns of a child is discussed below.

Family Characteristics Related to the Development and Maintenance of Child Behavior

Parental Influence. Parents have a strong influence on their children's prosocial or antisocial behavior (Kosterman, Haggerty, Spoth, Redmond, 2004). Therefore, when addressing the issues involved in providing treatment to families with children with behavior concerns, it is important to give specific attention to the role of the parents on their children's social behavior development. Because the family environment is the primary social setting in which a child learns social behaviors, parenting practices have become a prime target for intervention (Maughan, Christiansen, Jensen, Olympia, & Clark, 2005).

Parental influence on their children's behavior begins at birth. This relationship has a major influence on the behaviors the child learns to exhibit. A review of the literature has indicated parent-child relationships that are rich in opportunity, involvement and rewards have a positive influence on the child's behavior (Kosterman et al., 2004). Specifically, if children perceive opportunities for involvement, become involved, and find this involvement rewarding, they are likely to care about and identify with their parents (bonding) which has been identified to have a positive impact on the child's behavior (Kosterman et al., 2004). The parent-child relationship that is formed

within the first several years of the child's life strongly predicts the child's future social behavior.

Parents set the stage for their children's prosocial development by providing positive responses for appropriate behavior and by establishing predictable patterns of interpersonal behavior among family members (Duncan & Farley, 1990; Strand, 2000). By contrast, families that reinforce children for inappropriate behavior or that provide unpredictable responses inadvertently increase the likelihood of antisocial behavior patterns (Dumas, LaFreniere, Beaudin, Verlaan, 1992; Dumas & Wekerle, 1995; Patterson, 1982). Because these parenting practices are so strongly linked to child outcomes; positive rewards and parental consistency are prominent components of behavioral intervention programs.

Family Interactions. A variety of family characteristics that have an impact on parent-child interactions include: lack of parental education, low socioeconomic status and stressful family life events. These family characteristics are associated with a range of ineffective child management practices such as communicating unclear expectations to children, insufficient monitoring of children's social behaviors, and utilizing inconsistent and/or severe discipline techniques (Bank, Patterson & Reid, 1987; Hawkins, Catalano, & Miller, 1992; Patterson & Stouthamer-Loeber, 1984).

The literature provides strong evidence of how the family characteristics mentioned above can negatively impact the parent-child relationship which in turn may lead to certain parental influences that could initiate and maintain the behavior problems exhibited by the children. The literature also indicates that family characteristics can also often have a strong impact on the families' ability to access and follow through with

treatments that are typically offered for behavior problems in children. Thus leading to the conclusion for how important it is for the caregiver to be involved in the CBC process which will help address the direct behavior concerns of the child as well as the environmental conditions that can be manipulated in order to change and facilitate positive behavioral experiences.

Family Characteristics Related to Treatment

Several studies have linked low treatment integrity and the lack of positive treatment outcomes of families involved in behavioral intervention programs to a variety of family characteristics. Specifically, socioeconomic disadvantage, ethnic minority status, and severity of child dysfunction have been found to predict low attendance and premature termination from child and family therapy (Armbruster & Schwab-Stone, 1994; Furey & Basili, 1988; Gould, Shaffer, & Kaplan, 1985; Kazdin, Mazurick, & Bass, 1993; Kazdin, Stolar & Marciano, 1995; Kendall & Sugarman, 1997; McMahon, Forehand, & Griest, 1981; Novick, Benson & Rembar, 1981; Wierzbicki & Pekarik, 1993). These pre-determined characteristics combine with additional barriers to participating in treatment and make it very difficult for many children and families to receive the services they need.

Socioeconomic disadvantage has frequently been associated with poor outcomes in parent training (Dumas, 1984a, 1984b; Knapp & Deluty, 1989; Kazdin & Wassell, 2000; Routh, Hill, Steele, Elliot & Deweys, 1995; Webster-Stratton, 1985, 1992; Webster-Stratton & Hammond, 1990). Specific aspects of socioeconomic disadvantage that have a significant impact on a family's ability to access treatment include the lack of transportation, lack of financial resources to pay for treatment, and the limited access to

services in low income areas (Baekeland & Lundwall, 1975; Medrich, Roizen, Rubin & Duckley, 1982). Treatments for behavior problems in children often require an ongoing commitment to the treatment facility and treatment plan. It is easy to understand why so many children in need of services do not receive them when one examines all of the logistical barriers a family must attempt to overcome on a weekly basis.

Ethnic minority status has been shown to impact the level of engagement in treatment programs for children and their families. Some studies have found that premature termination of services is associated with minority status (Armbruster & Fallon, 1994; Kazdin & Mazurick, 1994; Kendall & Sugarman, 1997; Wierzbicki & Pekarik, 1993). A study conducted with Hispanic and African American caregivers indicated Hispanics as having higher level of engagement in parent-centered preventative interventions than the African American caregivers (Perrino, Coatsworth, Briones, Pantin & Szapocznik, 2001).

These risk factors make it quite evident that receiving services for children that require participation by the family is often too difficult for many families. Thus, children go without services and concerns continue to be present. The evidence provided above highlights the lack of participation of families in community-based programs, i.e. parent training programs, therefore alternative methods of delivering these services will be discussed. For example, behavioral intervention components that are typically part of a parent training program can be provided to the parents at no cost through consultation within their child's school.

CBC with Minority Clients

According to Sheridan (2000), there is no empirical base supporting the use of CBC in multicultural situations or when one or more participants represents diversity. The first investigation of CBC with minority clients was part of a large scale study examining the effectiveness and acceptability of the CBC process with children who represented various forms of diversity, i.e. ethnicity, socioeconomic status, family composition, maternal education level, and language spoken in the home (Sheridan, Eagle, Doll, 2006). The results of the study conducted by Sheridan et al. (2006) indicated CBC was an effective and acceptable model of service delivery for children representing diversity. Some limitations of the included a small number of children with specific diverse characteristics and subjective measures of diversity indicators that relied only on parent report.

There is limited research on the effectiveness of the CBC model with clients of minority. In addition, to this researcher's knowledge, there are no studies that examine the effectiveness and acceptability of the CBC model with clients of ethnic minority status, low socioeconomic status in an urban setting in the Southeastern part of the United States.

Purpose of this Study

This study proposed to extend the CBC literature to working with families and teachers of minority status in an urban school district. The present study investigated several possible outcomes for implementing an empirically supported intervention within the context of CBC for children exhibiting externalizing behavior concerns in the school and home settings. First, this study examined the extent to which the behavioral intervention implemented in the context of CBC was effective in reducing the frequency

of inappropriate target behaviors exhibited by the child at school. Second, this study examined the extent to which the behavioral intervention implemented in the context of CBC was effective in reducing the frequency of inappropriate target behaviors exhibited by the child at home. Third, this investigation examined the level of procedural and treatment integrity for the consultees' participation and implementation of the behavioral intervention, when implemented in the context of CBC. Finally, this study identified if the CBC model was an acceptable form of service delivery when working with families and teachers of minority status in an urban school district.

Four research questions were explored with regard to families and teachers involved in the CBC process within two inner-city, low-SES elementary schools. They were as follows: (1) Will behavioral interventions developed and implemented within the context of CBC be effective in reducing the frequency of the targeted externalizing behaviors exhibited by the child at school? (2) Will behavioral interventions developed and implemented within the context of CBC be effective in reducing the frequency of the targeted externalizing behaviors exhibited by the child at home? (3) Will teachers and caregivers at these low-SES, predominantly ethnic minority schools participate and carry out behavioral intervention plans developed using CBC for children with externalizing behavior problems with adequate integrity? (4) How acceptable will conjoint behavioral consultation be as a form of service delivery for teachers and families in this low-SES, ethnic minority urban school setting?

Hypotheses

It was hypothesized that (1) the behavioral intervention plan implemented within the context of CBC would be effective in reducing the frequency of the targeted

externalizing behaviors exhibited by the child at school; (2) the behavioral intervention plan implemented within the context of CBC would be effective in reducing the frequency of the targeted externalizing behaviors exhibited by the child at home; (3) the level of procedural and treatment integrity for the consultees participation and implementation of the behavioral intervention plans would be at least 80%; and (4) conjoint behavioral consultation would be an acceptable form of service delivery for teachers and ethnic minority families in this low-SES urban school setting.

CHAPTER III

METHODOLOGY

Participants

This study began with six consultation cases. Each case consisted of a general education teacher, a parent or caregiver (henceforth referred to as 'caregiver'), and the consultant who was the primary researcher and acted as consultant in all six cases. All six sets of teachers and caregivers were of ethnic minority status and were recruited from two elementary schools in an urban school district in Southeastern Louisiana. The teachers and caregivers were asked to participate in the current study if they had a student or child referred to the school building level Response to Intervention team for externalizing behavior concerns. The teachers and caregiver completed a rating scale to ensure that the child met the selection criteria for the current study, i.e. exhibiting significant externalizing behavior problems (at least one and a half standard deviations above the mean) both at school and home. The consultant in this study was a white, female school psychology doctoral intern who had more than three years of behavioral consultation experience.

The two elementary schools (PK-6) chosen for this study were located within an urban school district. Both schools served predominantly children of ethnic minority status, i.e. 98% African American and 2% Hispanic American. The socioeconomic status

for the families within both elementary schools was low, with 100% of the families meeting income eligibility for the free or reduced-price lunch program. All schools within this school district practiced a 'full inclusion' model of service delivery for the students with special needs. Therefore, the general education teachers were responsible for both the students with special needs and the students in the general curriculum. Consequently, all student and teacher data collected in this study were gathered in the students' general education classroom.

Three of the consultation cases were dropped from this study due to lack of participation by their caregivers. Although the caregivers for the three children who were dropped from the study initially agreed to participate, they did not attend any CBC meetings, did not return any data from the home setting, and were not able to be contacted via telephone. Multiple attempts were made to contact the caregivers and to assist them with becoming engaged in the CBC process, i.e. multiple phone calls, offering them to participate via phone conference, incentives for participation. Reports from the caregivers in the three families dropped from the study indicated barriers to participation in the CBC process, such as work schedules, inconsistent access to working telephones, transportation difficulties, and/or not seeing their child on a daily basis due to schedules or inconsistent living arrangements. Therefore, only three of the original six consultation cases were included in this study.

Selection Criteria

Selection criteria for this study included a teacher referral to the school building level Response to Intervention team due to behavior concerns in the classroom; significant ratings, i.e. at least one and a half standard deviations above the mean, on the

externalizing behavior problem scale on the Behavior Assessment System for Children-Second Edition (BASC II; Reynolds & Kamphaus, 2004) rated by both the teacher and caregiver; general education placement; and parent and teacher consent (see the consent forms in Appendices B and K). Behavioral consultation referrals that came to the Response to Intervention team were reviewed by the consultant for further evaluation to ensure the selection criteria were met. Selection for this study began in April, 2008.

Instruments

Informed Consent Form. Informed consent forms for the caregiver and teacher were created by the researcher. The informed consent forms consisted of a detailed description of the current study and an option to sign for participation. The informed consent forms can be found in Appendices B and K.

Demographic information. Demographic information sheets created by the researcher were completed by the caregiver and teacher after consent for participation in the study had been obtained. Demographic information on the caregiver's sheet included child's gender, age, and ethnicity, caregiver's relationship to the child, caregiver's gender, age, and ethnicity as well as the family's socioeconomic status using the qualification for the Free and Reduced Price Lunch Program at school and the 4-question Hollingshead measure of SES (1975). The demographic information sheet the teacher completed included the teacher's gender, ethnicity, education level (years of college and degree earned), years of experience, current teaching assignment and supports in the general education classroom (e.g., paraprofessionals, co-teachers). The caregiver and teacher demographic information sheets can be found in Appendices C and D, respectively.

Behavior Assessment System for Children-Second Edition (BASC II; Reynolds & Kamphaus, 2004). The Behavior Assessment System for Children II is a multidimensional, multi-method instrument designed to evaluate the behavior and personality of individuals ranging from 2 through 25 years of age. Teacher, parent, and self-report versions are available, with different forms targeting specific age ranges. BASC-2 norms are based on large, representative that are reflective of the 2001 United States census. BASC-2 norms are also differentiated according to the age, sex, and clinical status of the child. In this study, only the teacher and parent versions were used and scores were calculated using age-based norms. Reliability and validity results for the BASC-II scores are strong. Alpha coefficients were reported to be .97 for the composite on both the teacher and parent versions, and .88 on the scales of the teacher version and .85 on the scales of the parent version (Reynolds & Kamphaus, 2004).

Behavior Observation Recording Form. A Behavior Observation Recording Form was created by the researcher for the teachers and caregivers to use each week when recording the frequency, duration, and/or intensity of the child's inappropriate target behaviors. The teacher and caregiver recorded the frequency, duration, and/or intensity in the corresponding cell on the Behavior Observation Recording Form for each time the child exhibited the target behavior (indicated on the form) during the specified observation time period each day of the week during the baseline and intervention phases of the study. The teacher and caregiver completed separate forms and reported the information to the consultant on a daily basis. The Behavior Observation Recording Form can be found in Appendix E.

Behavior Intervention Rating Scale (BIRS; Von Brock & Elliot, 1987). The BIRS was used in this study to evaluate the consultees' perception of the effectiveness of the behavioral intervention. The BIRS contains 24 items that are rated on a 6-point Likert scale with '6' being the highest possible score, indicating a high level of acceptability with the behavior intervention. Factor analysis of the BIRS yielded three factor scores: Acceptability, Effectiveness, and Time to Effect (Von Brock & Elliot, 1987). Alpha coefficients reported by Von Brock & Elliot (1987) were .97 for the total scale, and .97 for Acceptability, .92 for Effectiveness, and .87 for the Time to Effect factors. A study conducted by Sheridan et al. (2001) reported BIRS results when measuring CBC outcomes and noted alpha coefficients of α =.95 for teachers and α =.93 for parents. The results of these studies indicate the BIRS is a reliable measure for assessing outcomes of the CBC process. The BIRS can be found in Appendix F.

Consultant Evaluation Form (CEF; Erchul, 1987). In this study, the CEF was completed by all teacher and caregiver participants to evaluate their satisfaction with the consultation experience. The *CEF* is a 12-item, 7-point Likert scale with '7' being the highest possible score, indicating high satisfaction with the consultant's effectiveness. Items on this scale specifically request information on the consultees' perceptions of the helpfulness of the consultant, the benefits of consultation, and the overall satisfaction with the consultation experience. Research with the *CEF* has yielded adequate internal consistency estimates (α = .95; Erchul, 1987). Sheridan et al. (2001) found alpha coefficients of α = *.83* and α = *.89* on the teacher and parent scales, respectively, for conjoint behavioral consultation. The *CEF* can be found in Appendix G.

Fidelity Checks. The investigator collected integrity data regarding the fidelity with which the consultant and consultees followed the CBC procedures set forth in the literature. She also measured the degree to which the caregiver and teacher consultees correctly implemented the behavioral interventions that were developed through the consultation process.

The procedural integrity of the CBC process (that is, the degree of fidelity to the CBC procedures) was documented in two ways. One method that was used to measure fidelity to the CBC procedures was by assessing adherence of the consultant and consultees to the various components of the CBC process (i.e., Conjoint Problem Identification, Conjoint Problem Analysis, and Conjoint Treatment Evaluation). The second approach for assessing procedural integrity was by documenting that each consultation interview (Conjoint Problem Identification Interview, Conjoint Problem Analysis Interview, and Conjoint Treatment Evaluation Interview) fulfilled its appropriate objectives as set forth in the CBC literature.

The integrity with which the various components of the CBC process were carried out was measured by assessing teacher and caregiver attendance at the scheduled consultation meetings. The degree to which the consultant and consultees fulfilled the proper objectives for each consultation meeting was measured in two ways. One way was by having the consultant complete the CBC Objectives Checklist (Sheridan et al., 1996; please see Appendix H) at every CBC interview. Another way that fidelity to CBC procedures was verified during the consultation interviews was by audiotaping all of the CBC interviews with teachers and caregivers and having the tapes coded by an independent observer.

The independent observer for this study was a 27 year-old white female pre-doctoral psychology intern who had previous training and three years of supervised experience implementing behavioral consultation in public school settings. The consultant/researcher in this study had previously trained the observer to assess the level of treatment integrity of the CBC process by providing her with the CBC Objectives Checklist and by giving concrete examples of the information that each objective should include. The independent observer then listened to the audiotapes of the actual consultation sessions and completed the CBC Objectives Checklist for all sessions to assess the level of integrity with which the consultant adhered to the CBC procedures as stated on the checklist. The integrity with which the CBC process was adhered to was computed by dividing the number of component steps completed by the total number of steps for each consultation session.

Treatment integrity (that is, the integrity with which the caregiver and teacher consultees correctly implemented the behavioral interventions developed in the consultation interviews) also was measured. Treatment integrity was assessed by the consultant completing an Intervention Plan Checklist (available in Appendix I) and by checking the rates of completion and return of the assigned school-home notes. The Intervention Plan Checklist was designed for the consultees to complete each day the intervention was implemented. The Intervention Plan Checklists were completed by the consultees and data was reported to the consultant on a daily basis, via email or telephone. Treatment integrity of the school-home note was evaluated by assessing the number of times the consultees completed and sent the note with the student to the respective setting. The treatment integrity of the intervention process was specifically

measured by calculating the average percentage of the consultees participation in the three CBC meetings, data collection on the behaviors throughout the baseline and intervention phases, implementation of specific steps of the intervention plan as indicated on the intervention checklist, and completion and return of the daily school-home note. Reliability of the treatment integrity checklists completed by the teacher consultee was monitored through direct observations in the classroom conducted by the consultant on a weekly basis.

Procedure

Participants in this study initially were asked to complete a BASC II rating form to determine if the child's behavior met selection criteria for the study (i.e. behavior concerns falling at least one and a half standard deviations above the mean on the externalizing behavior scale). Once it was determined that the selection criteria were met, the participants received a research packet which included all paperwork needed for the initial stage of the study. This packet included (a) a cover letter on university letterhead inviting the individual to participate, (b) two copies of the informed consent (one for them to keep for their records), and (c) one copy of the Demographic Information Sheet. The consultant provided an explanation of the information contained on the informed consent form that the participants were invited to sign.

At the beginning of the consultation process, the participants were given copies of the Behavior Observation Record Form and Intervention Treatment Integrity Checklists to complete on a daily basis. The Appendices contain the cover letter (available in Appendix A), informed consents (printed in Appendices B and K), demographic information sheets (provided in Appendices C and D), behavior record observation form

(located in Appendix E), and the intervention and consultation treatment integrity checklists (available in Appendices I and J).

After informed consent was obtained from the teacher and caregiver, the series of CBC interviews was initiated. In all interview sessions, the consultant documented adherence to CBC procedures by completing the corresponding CBC Objectives Checklist. Specifically, the consultant completed the Problem Identification Interview Objectives Checklist during the Problem Identification Interview, Problem Analysis Interview Objectives Checklist during the Problem Analysis Interview, and finally, the Treatment Evaluation Interview Objectives Checklist during the Treatment Evaluation Interview. In addition, all the interviewing sessions were audiotaped and reviewed using the previously mentioned CBC objectives checklists by one peer reviewer.

The consultant scheduled a Conjoint Problem Identification Interview (CPII) at the elementary school for a time that was convenient to all. After the target behaviors were identified, the consultees were trained in data collection procedures and asked to collect baseline data on the Behavior Observation Record Form during a specified two-hour time period each day of the week (Monday through Friday). The caregiver was asked to collect data on the child's behavior during the first two hours the child and caregiver were together after school. Consultees were asked to record and report the behavioral data to the consultant on a daily basis. The consultant monitored the baseline data collection via stopping into the classroom and making a minimum of one phone call to the caregiver each week. After approximately two weeks, the consultant began to monitor data collection as well as intervention implementation with the caregivers through daily telephone calls.

The beginning of the intervention phase began with the Conjoint Problem Analysis Interview (CPAI) that was again held at the elementary school at time that was convenient to all. If caregivers were unable to attend the meeting at the school, they were allowed to participate in the meeting via phone conference. An intervention plan was developed by the consultant and consultees during the problem analysis interview. The consultees were asked to complete the Behavior Intervention Rating Scale (BIRS) and the Consultant Evalaution Form (CEF) after the CPAI. The CPAI was immediately followed by the conjoint treatment implementation phase. The behavioral interventions were implemented by the teacher and caregiver in the school and home settings. Questions or concerns regarding the intervention plan were addressed to the consultant in an ongoing basis. The intervention and behavioral progress was monitored by the consultant and consultees with additional meetings scheduled as needed. The consultees completed another BIRS and CEF approximately two weeks after the intervention implementation began. The intervention phase continued for at least four weeks with a conjoint treatment evaluation interview held at the end.

Finally, the participants were given a second BASC II form, Behavior Intervention Rating Scale and Consultant Evaluation Form to complete after the intervention phase had concluded. These scales were completed by the participants at the elementary schools after the Conjoint Treatment Evaluation Interview. The caregivers who were unable to attend the meetings at the school were administered these scales by the consultant via telephone. Due to the time constraints of the academic school year and inconsistencies of attendance of the students in two of the cases, follow-up data were unable to be collected as a part of this study. The consultees were given a ten dollar gift

certificate to a local fast-food restaurant for completing and returning all required paperwork to the final session.

Experimental Design

A non-concurrent multiple baseline design (MBD) across participants (Hayes, Barlow, & Nelson, 1999; Tawney & Gast, 1984) was used to evaluate the effectiveness of the empirically supported behavioral interventions in the context of CBC for children exhibiting behavior concerns in the classroom and home settings. The three sets of teacher and caregiver participants were grouped into two series (i.e. 2 sets, 1 set), thus phase changes occurred across two separate series. Behavioral changes were monitored during baseline and intervention phases for all children. Multiple baseline analysis allowed the researcher to protect against threats to the internal validity of the study. Specifically, by replicating the phase changes across two series of participants, each series acted as a control for the previous series to strengthen the overall treatment effect (Hayes et al., 1999). Each series baseline was staggered by at least three data collection points to ensure that phase changes occurred at different times for the participants in the two series.

The baseline phase for each set of participants was at least one week, i.e. approximately eight data points for the first series and at least two weeks or fourteen data points for the second series. After the baseline phase for each series, the intervention phase began with the Problem Analysis Interview of the CBC model. The intervention phase was implemented in a staggered fashion across the two series of participants and ran approximately four to six weeks, concluding with the Treatment Evaluation Interview of the CBC model.

Analysis

Data collected on the inappropriate behaviors exhibited by the child were compiled and graphed for further analysis. The frequency, intensity, and/or duration of targeted externalizing behaviors exhibited in the school and home settings were graphed on the same chart with separate identifying lines for each target behavior in the respective setting. Subjective data collected on treatment integrity and treatment acceptability were gathered and reported as descriptive statistics.

Visual analysis of the graphed data involved looking at level and mean changes of data points across baseline and intervention phases for each set of participants (Tawney & Gast, 1984; Kazdin, 1982). Level changes were examined to determine the change in the behaviors from the end of one phase, i.e. baseline to the beginning of the next phase, i.e. intervention. The amount of time elapsed within the condition before a change in performance occurred allowed the researcher to determine the strength of the treatment effect. For example, if a large change in levels occurs immediately after the intervention is implemented, the level change would suggest a treatment effect. The mean level of each phase was calculated by adding the ordinate values of data points in each phase and dividing that number by the total sum of the number of data points in that phase.

Trend changes refer to the rate of change in the data points across the baseline and intervention phases (Kazdin, 1982). Specifically, trend changes show the systematic increases or decreases in the data over time. If the intervention phases of the current study were effective, the data for frequency of target behaviors should show a systematic decelerating trend across the intervention phase. The consistency of data were assessed

by calculating standard deviation for each target behavior in each of the three cases for both the baseline and intervention phases.

Effect sizes derived from individual case data were used to determine whether CBC produced an effect, and if so, the magnitude of the treatment effect. Effect size (ES) is a metric that provides information about the importance of a difference or relationship that tends to be more informative than traditional statistical analysis or hypothesis testing. Recent consultation studies have used single-case effect sizes to determine the magnitude of effect rather than whether there was a difference or functional relationship between independent and dependent variables (Chow, 1988; Sheridan et al., 2001). Effect sizes were calculated for the each specific behavior for each of the three cases in the intervention phase. Specifically, effect sizes were computed by subtracting the baseline mean from the treatment mean for each target behavior in each case and dividing by the standard deviation of the baseline phase to produce a quantitative index of treatment effect. Effect sizes of +1 or more indicate that the effect size is similar to one standard deviation above the expected baseline mean. An effect size of 0.2 is considered to be small, an effect size of 0.5 is medium, and an effect size of 0.8 is large (Cohen, 1992).

Computation of the percentage of non-overlapping data points (PND) provides a reliable and simple way to compute the treatment effect of the independent variables on the dependent variables in a small-N multiple baseline study (Tawney & Gast, 1984). A small amount of overlap in the data occurs when the data points in the intervention phase differ significantly from the data points in the baseline phase. According to Scruggs, Mastropieri, and Casto (1987), the equation for calculating the PND for this study is:

PND = # treatment data points below the lowest baseline data point / Total # treatment data points.

Data were analyzed both within and across participants to provide clear evidence that a treatment effect exists or does not exist for each participant. For example, data for each participant were examined to identify the change in behavior from baseline to intervention. In addition, data from each participant's baseline was compared across the other participant's baseline data to ensure the intervention phase for one participant is not reflected in the other participants.

Descriptive data obtained from the subjective measures completed by the consultees, consultant, and peer reviewer were also analyzed as a part of this study. Specifically, data regarding the child's target behaviors were analyzed using pre-, post-data from the BASC II while the social validity of the intervention and consultation process were examined with the use of the BIRS, CEF, and treatment integrity measures. Data regarding the treatment integrity of the behavioral intervention were analyzed by calculating the percentage of intervention steps completed, as reported by the consultees. This percentage was calculated by dividing the total number of intervention steps completed by the consultees by the total number of interventions steps included in the intervention plans, i.e. meeting attendance, Intervention Plan Checklist, and school-home note. Information regarding the treatment integrity of the consultation process was calculated and reported in a similar fashion. Specifically, the CBC objectives checklists for each consultation interview were completed by both the consultant and an independent peer reviewer who was blind to the purpose of this study. Information from the completed objectives checklists was used to calculate the percentage of CBC

procedures followed throughout the course of the CBC process. The percentage of CBC procedures completed was calculated by adding the total number of CBC steps followed in all of the interviews and dividing that number by the total number of CBC steps included in all of the interview sessions. These percentages were reported as the overall levels of treatment integrity for implementing the behavioral intervention and CBC process.

CHAPTER IV

RESULTS

The purpose of the study is restated followed by a presentation of the relevant findings and specific answers to the research questions identified in this study.

Purpose

The primary purpose of this study was to investigate several possible outcomes for implementing an empirically supported behavioral intervention within the context of CBC for children exhibiting externalizing behavior concerns in the school and home settings. This study extended the existing literature base by focusing on implementing CBC and the behavioral intervention within an urban school district with clients of ethnic minority.

Case Descriptions

Table 1 provides a summary of the participants pertaining to each of the three cases, as well as a brief summary of the target behaviors.

Table 1
Summary of Case Descriptions

Case #	School Consultee	Home Consultee	Target Behaviors
1 (F.D.)	3rd Grade Teacher (Inclusion Classroom)	Great-Grandmother	1. Talking without permission 2. Talking Back 3. Out of seat
2 (R.R.)	3rd Grade Teacher (Inclusion Classroom)	Great-Aunt	1. Not following directions 2. Aggression 3. Off-task
3 (N.L.)	6th Grade Teacher (Inclusion Classroom)	Father	1. Verbal Aggression 2. Physical Aggression 3. Off-Task

Case #1 (F.D.)

Results for F.D. are graphically presented in Figure 1. F.D.'s 3rd grade teacher was a biracial (African-American and Hispanic) female with a bachelor's degree and 1 year of teaching experience. Supports provided in F.D.'s teacher's classroom included a part-time paraprofessional who was in the classroom a few hours each week. F.D.'s caregiver was a seventy-six year old African-American woman who was his great-grandmother. F.D.'s caregiver had less than a 7th grade education and was separated or divorced with no financial support. F.D.'s great-grandmother was in poor health, had no transportation and lived in housing projects near the elementary school F.D. attended with F.D. and his older sister.

During the CPII with the consultees, it was reported that F.D. talked without permission, talked back to teachers, caregivers, and other students, and was out of his seat in the classroom and home setting several times a day. Consultees reported this behavior to occur approximately 4-5 times in a one hour class period and homework time at home. F.D.'s teacher and caregiver reported this behavior has been occurring since the beginning of the school year. F.D.'s teacher reported that it has gotten worse throughout the year while his caregiver indicated it remaining relatively stable and "not as bad" at home. The goal for the rate of the target behaviors that was collaboratively decided upon by the consultees and consultant within the CPII was 0-1 occurrences within a one-hour time frame.

Baseline. Baseline data were collected in the general education classroom setting for two hours each day over the course of eight days and the average rates of the target behaviors, talking without permission, talking back, and out of seat were 5.29, 3.57, and

3.43 respectively. Baseline data were also collected in the home setting for two hours a day over the course of eight days and the average rates of the target behaviors were 0, 1.80, and 3.40 respectively.

Intervention. An intervention was developed by the consultees and consultant during the CPAI and implemented by the teacher in the classroom setting and by the caregiver in the home setting for two hours each day (Monday – Friday). The intervention was designed to reduce the number of times F.D. engaged in the target behaviors mentioned above. The intervention consisted of a visual cue (list of target behaviors taped to his desk/table), verbal cues from his teacher and caregiver instructing him to not engage in the target behaviors during the specified time period, a contingency which allowed F.D. to color in a box on the 'mystery motivator' chart for every 10-15 minutes that he did not engage in the target behaviors, and a school-home note reporting F.D.'s daily behaviors. If a mark appeared in the box F.D. colored in on the 'mystery motivator' chart, he was able to choose a reward or privilege from a grab bag. In addition, if F.D. had less than 3 target behaviors listed on his daily school-home note and a daily behavior grade of 'A' or 'B' he was able to earn a special privilege, i.e. playing with his wrestling toys, when he got home from school that day.

After the initial baseline phase, the intervention was implemented by the classroom teacher and caregiver in the respective settings during a specified time period for two hours in each setting each day (Monday – Friday). The intervention was in place for a total of 34 days, however, due to suspensions and incomplete data collected by the teacher and caregiver on some days, data were collected for a total of only 24 days in the school setting and 18 days in the home setting. After the implementation of the

intervention, the average rate of the target behaviors, i.e. talking without permission, talking back, and out of seat, decreased to 1.92, 1.38, and 2.00 in the classroom setting and 0.0, 0.94, and 1.72 in the home setting.

As a part of F.D.'s behavior intervention plan, he was able to earn the opportunity to color in boxes on his mystery motivator chart for not exhibiting any of the target behaviors in a specified time period, i.e. 15 minutes. In addition, if a special mark appeared in the box F.D. colored in, he was able to choose a reward from the grab bag in the classroom. Data provided by the teacher, including verbal reports and completed mystery motivator charts, indicated that F.D. colored in an average of 3 boxes each day and earned an average of approximately 1 reward from the grab bag each day with the number of rewards ranging from 0 to 3 in a day. F.D.'s behavior intervention plan also included a school-home note in which the total number of target behaviors he exhibited in that day were written in a box along with a 'behavior grade' determined by the teacher for that day and if he earned less than the goal, i.e. 3 target behaviors for that day he was able to earn a special privilege at home. Verbal reports from F.D.'s caregiver indicated that he earned his privilege 21% of the days in the intervention period.

Evaluation. The BASC II Parent and Teacher forms were administered at baseline and following treatment, during the TEI, to determine perceived changes in the child's challenging behavior. The effects of the intervention were evaluated by determining whether the scale scores that were in the clinical range had moved to the normal range. Refer to Table 2 for the teacher and caregiver ratings on the externalizing scales of the BASC II. Ratings provided by F.D.'s teacher in regards to his externalizing behaviors in the classroom setting fell within the clinically significant range, i.e. T score = 91 during

the baseline phase and fell into the 'at-risk' range, i.e. T score = 61 after implementation of the intervention. Thus, indicating a significant decrease (greater than one standard deviation) in the teacher's ratings of F.D.'s externalizing behavior. Ratings provided by F.D.'s caregiver in regards to the externalizing behaviors exhibited in the home setting fell within the 'at-risk' range, i.e. T-score = 67 during the baseline phase and fell into the 'average' range, i.e. T-score = 59 after the intervention phase.

Table 2

Case 1: Teacher and Caregiver Ratings on the Externalizing Scales of the BASC II

Scale	Pre-Intervention		Post-Intervention	
	Teacher	Caregiver	Teacher	Caregiver
Hyperactivity	89**	76**	60*	63*
Aggression	89**	64*	63*	57
Conduct Problems	86**	56	59	54
Externalizing Problems	**91****	**67***	**61***	**59**

Note. * denotes At-Risk ** denotes Clinically Significant

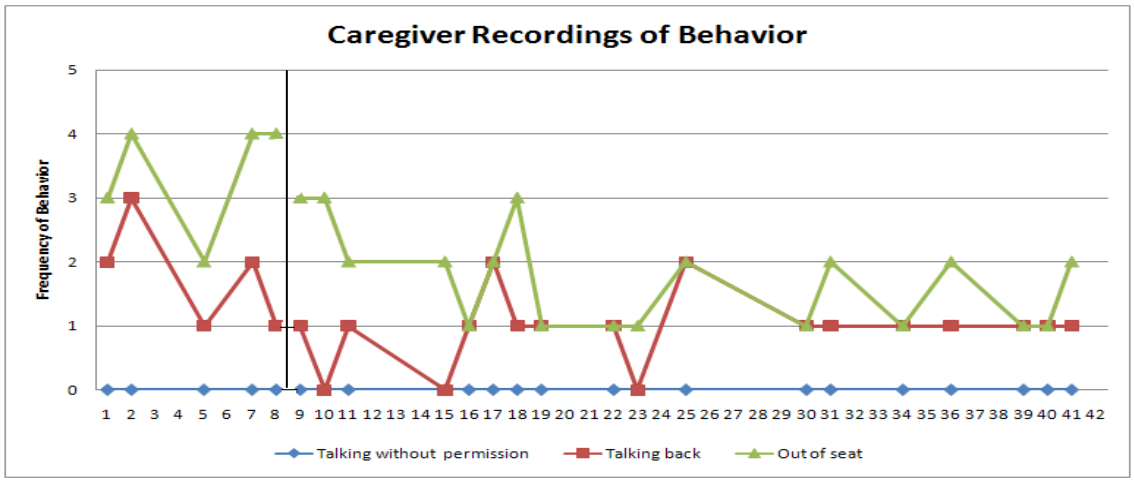
Table 3 presents the descriptive statistics for observational ratings across settings and consultation phases, i.e. baseline and intervention. Figure 1 shows a visual representation of the behavioral observation data collected throughout the baseline and intervention phases by the caregiver and teacher in the respective settings.

Table 3

Case 1: Descriptive Statistics for Observational Ratings in the Home and School Settings

Target Behavior	Baseline	Intervention	PND
Talking without Permission			
Home	0	0 (0)	0
School	5.29 (1.98)	1.92 (0.99)	37.5
Talking Back			
Home	1.80 (0.75)	0.94 (0.52)	17.0
School	3.57 (1.40)	1.38 (0.99)	50.0
Out of Seat			
Home	3.40 (0.80)	1.72 (0.73)	44.0
School	3.43 (1.29)	2.00 (1.35)	50.0

Note. All values for baseline and intervention are mean rates of behavior across observations within each setting and phase. Standard deviations are in parentheses. PND = Percentage of non-overlapping data between baseline and treatment phases (Tawney & Gast, 1984).



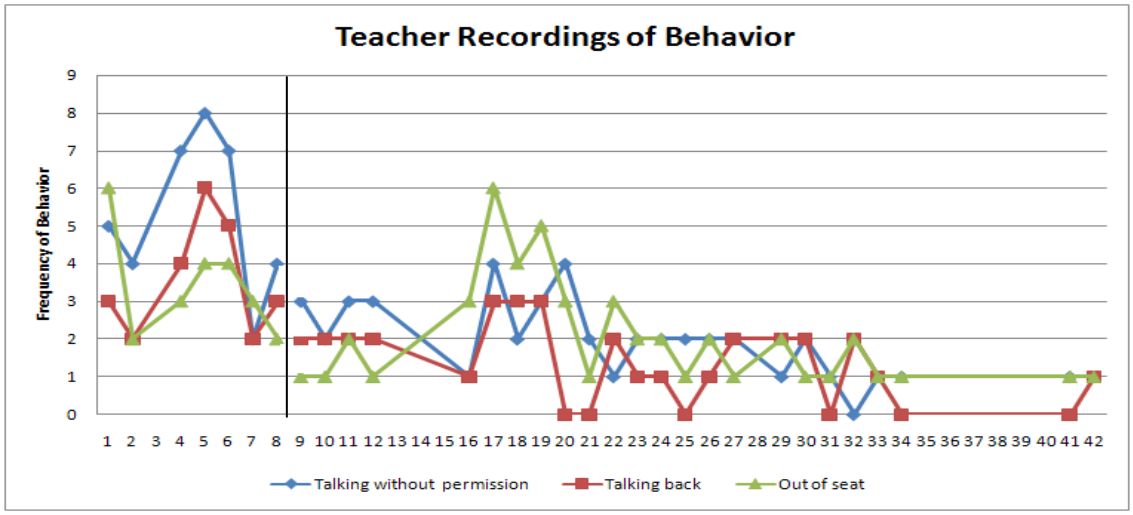


Figure 1. Caregiver and Teacher Observational Recordings of the Frequency of the Target Behaviors Across Baseline and Intervention Phases for F.D.

Note. Data reported in the graphs above represent consecutive school days.

Following the analyses of caregiver and teacher observational ratings, behavior effect sizes were calculated for each target behavior. Effect sizes reported in negative units reflect a reduction in problem behavior. The magnitude of behavioral change in the home setting for F.D.'s three target behaviors, talking without permission, talking back and out of seat behavior were 0.0, -1.14 and -2.10, respectively. Thus, indicating no intervention effect on talking without permission and a large intervention effect on

talking back and out of seat behavior in the home setting. The magnitude of behavioral change in the school setting for F.D.'s three target behaviors, talking without permission, talking back, and out of seat behavior were -1.70, -1.57, and -1.10, indicating a strong improvement in F.D.'s behavioral control in the school setting.

Case #2 (R.R.)

Results for R.R. are graphically presented in Figure 2. R.R.'s 3rd grade teacher was an African-American female with a bachelor's degree and 1 year of teaching experience. Supports provided in R.R.'s teacher's classroom included a part-time paraprofessional who was in the classroom a few hours each week. R.R.'s caregiver was a fifty-four year old African-American woman who was his great-aunt. R.R.'s caregiver had some college education and was separated or divorced with no financial support. R.R.'s caregiver shared transportation with her adult son and lived in low-income housing near the school R.R. attended with R.R. and her adult son and his family. R.R. frequently requested to go back to Texas to live with his mother, however, R.R.'s caregiver indicated that after being there for several days, R.R. typically requested to come back and live with her in Louisiana.

During the CPII with the consultees, it was reported that R.R. did not follow directions, was aggressive, and was observed to be off-task several times a day. Consultees reported this behavior to occur approximately 3-4 times in a one hour class period and homework time at home. R.R.'s teacher and caregiver reported this behavior has been occurring since the beginning of the school year. R.R.'s teacher and caregiver reported that it has gotten worse throughout the year. The goal for the rate of the target

behaviors that was collaboratively decided upon by the consultees and consultant within the CPII was 0-1 occurrences within a one-hour time frame.

Baseline. Baseline data were collected in the general education classroom setting for two hours a day over the course of nine days and the average rate of the target behaviors, not following directions, aggression and off-task behavior were 2.56, 1.78, and 3.00, respectively. Baseline data were also collected in the home setting for two hours each day over the course of nine days. The average rates of the target behaviors were 1.67, 0.0, and 4.00, respectively.

Intervention. An intervention was developed by the consultees and consultant during the CPAI and implemented by the teacher in the classroom setting and by the caregiver in the home setting for two hours each day (Monday – Friday). The intervention was designed to reduce the number of times R.R. engaged in the target behaviors mentioned above. The intervention consisted of a visual cue (list of target behaviors taped to his desk/table), verbal cues from his teacher and caregiver instructing him to not engage in the target behaviors during the specified time period, a contingency which allowed R.R. to color in a box on the 'mystery motivator' chart for every 10-15 minutes that he did not engage in the target behaviors, and a school-home note reporting R.R.'s daily behaviors. If a mark appeared in the box R.R. colored in on the 'mystery motivator' chart, he was able to choose a reward or privilege from a grab bag. In addition, if R.R. had less than 3 target behaviors listed on his daily school-home note and a daily behavior grade of 'A' or 'B' he was able to earn a special privilege, i.e. having a special snack, when he got home from school that day.

After the initial baseline phase, the intervention was implemented by the classroom teacher and caregiver in the respective settings during a specified time period for two hours in each setting each day (Monday – Friday). The intervention was in place for a total of 33 days, however, due to suspensions, absences, and incomplete data collected by the teacher and caregiver on some days, data were collected for a total of only 27 days in the school setting and 26 days in the home setting. After the implementation of the intervention, the average rates of the target behaviors (i.e. not following directions, aggression, and off-task) decreased to 1.00, 0.70, and 1.48, respectively, in the classroom setting and 0.58, 0.0, and 1.38, respectively, in the home setting.

As a part of R.R.'s behavior intervention plan, he was able to earn the opportunity to color in boxes on his mystery motivator chart for not exhibiting any of the target behaviors in a specified time period (i.e. 15 minutes). In addition, if a special mark appeared in the box R.R. colored in, he was able to choose a reward from the grab bag in the classroom. Data provided by the teacher, including verbal reports and completed mystery motivator charts, indicated that R.R. colored in an average of 4 boxes each day and earned an average of approximately 2 rewards from the grab bag each day with the number of rewards ranging from 0 to 4 in a day. R.R.'s behavior intervention plan also included a school-home note in which the total number of target behaviors he exhibited in that day were written in a box along with a 'behavior grade' determined by the teacher for that day and if he earned less than the goal, i.e. 3 target behaviors for that day he was able to earn a special privilege at home. Verbal reports from R.R.'s caregiver indicated that he earned his privilege 56% of the days in the intervention period.

*Evaluation. T*he BASC II Parent and Teacher forms were administered at baseline and following treatment, during the TEI, to determine perceived changes in the child's challenging behavior. The effects of the intervention were evaluated by determining whether the scale scores that were in the clinical range had moved to the normal range. Ratings provided by R.R.'s teacher in regards to his externalizing behaviors in the classroom setting fell within the clinically significant range (i.e. T score = 86) during the baseline phase and fell into the 'at-risk' range (i.e., T score = 60) after implementation of the intervention. Thus, indicating a significant decrease (greater than one standard deviation) in the teacher's ratings of R.R.'s externalizing behavior. Ratings provided by R.R.'s caregiver in regards to the externalizing behaviors exhibited in the home setting fell within the 'at-risk' range (i.e. T-score = 66), during the baseline phase and fell into the 'average' range (i.e. T-score = 54), after the intervention phase.

Table 4

Case 2: Teacher and Caregiver Ratings on the Externalizing Scales of the BASC II

Scale	Pre-Intervention		Post-Intervention	
	Teacher	Caregiver	Teacher	Caregiver
Hyperactivity	75**	65*	58	50
Aggression	103**	66*	65*	60*
Conduct Problems	74**	62*	54	51
Externalizing Problems	**86****	**66***	**60***	**54**

Note. * denotes At-Risk ** denotes Clinically Significant

Table 5 presents the descriptive statistics for observational ratings across settings and consultation phases, i.e. baseline and intervention. Figure 2 shows a visual

representation of the behavioral observation data collected throughout the baseline and intervention phases by the caregiver and teacher in the respective settings.

Table 5

Case 2: Descriptive Statistics for Observational Ratings in the Home and School Settings

Target Behavior	Baseline	Intervention	PND
Not Following Directions			
Home	1.67 (0.67)	0.58 (0.57)	46.2
School	2.56 (0.83)	1.00 (0.77)	29.6
Aggression			
Home	0	0	0
School	1.78 (1.13)	0.70 (0.85)	0
Off-Task			
Home	4.00 (1.49)	1.38 (0.84)	61.5
School	3.00 (0.67)	1.48 (0.83)	44.4

Note. All values for baseline and intervention are mean rates of behavior across observations within each setting and phase. Standard deviations are in parentheses. PND = Percentage of non-overlapping data between baseline and treatment phases (Tawney & Gast, 1984).

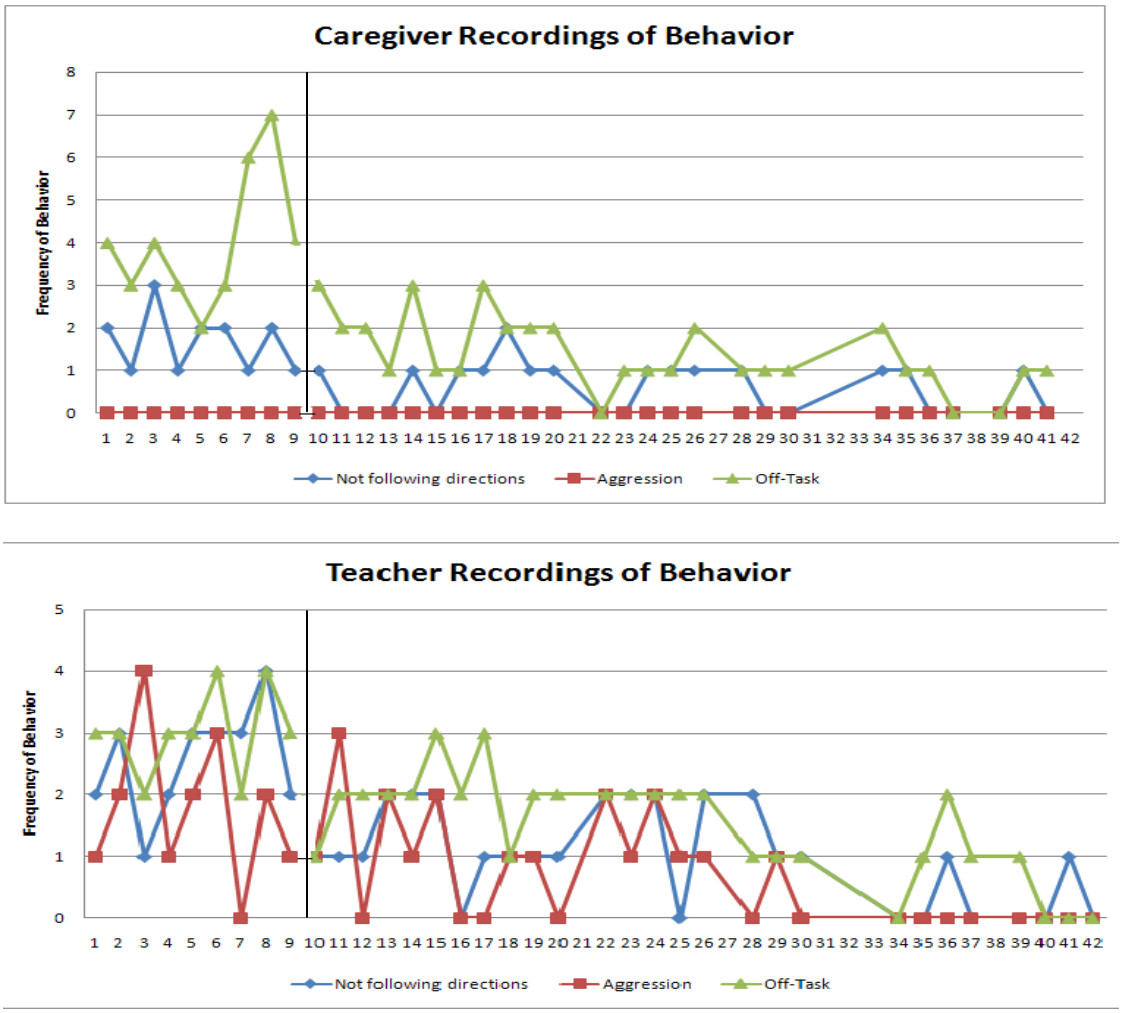


Figure 2. Caregiver and Teacher Observational Recordings of the Frequency of the Target Behaviors across Baseline and Intervention Phases for R.R.

Note. Data reported in the graphs above represent consecutive school days.

Following the analyses of caregiver and teacher observational ratings, behavior effect sizes were calculated for each target behavior. Effect sizes reported in negative units reflect a reduction in problem behavior. The magnitude of behavioral change in the home setting for R.R.'s three target behaviors (not following directions, aggression, and off-task) were -1.63, 0.0, and -1.75, respectively, thus indicating no intervention effect on aggression and a large intervention effect on not following directions and off-task

behavior in the home setting. The magnitude of behavioral change in the school setting for R.R.'s three target behaviors (not following directions, aggression, and off-task) were -1.87, -0.95, and -2.28, respectively, indicating a strong improvement in R.R.'s behavioral control in the school setting.

Case #3 (N.L.)

Results for N.L. are graphically presented in Figure 3. N.L.'s 6th grade teacher was an African-American female with bachelor's degree and 5 years of teaching experience. Supports provided in N.L.'s teacher's classroom included computers and a part-time paraprofessional who was in the classroom a few hours each day. N.L.'s caregiver was a thirty-five year old Nubian man who was his father. N.L.'s caregiver had some college education and was married and living with his spouse, N.L.'s biological mother. N.L.'s caregivers both participated in the CBC process, however, both worked several hours a day, were rarely available to for consultation meetings, and often did not see N.L. on a daily basis.

During the CPII with the consultees, it was reported that N.L. was verbally aggressive, physically aggressive and off-task several times a day. Consultees reported this behavior to occur approximately 3 times in a one hour class period and homework time at home. N.L.'s teacher and caregiver reported this behavior has been occurring more since returning from the holiday break in January. N.L.'s teacher reported that he exhibited some of the behaviors during the first part of the school year but that the behaviors have gotten worse while his caregiver indicated the behaviors have remained relatively stable but that he is not physically aggressive at home. The goal for the rate of

the target behaviors that was collaboratively decided upon by the consultees and consultant within the CPII was 0-1 occurrences within a one-hour time frame.

Baseline. Baseline data were collected in the regular classroom setting for two hours each day over the course of fourteen days and the average rate of the target behaviors (verbal aggression, physical aggression, and off-task) were 3.5, 2.4, and 4.3, respectively. Baseline data were also collected in the home setting for two hours each day for fourteen days and the average rate of the target behaviors were 0.78, 0, and 2.89 respectively.

Intervention. An intervention was developed by the consultees and consultant during the CPAI and implemented by the teacher in the classroom setting and by the caregiver in the home setting for two hours each day (Monday – Friday). The intervention was designed to reduce the number of times N.L. engaged in the target behaviors mentioned above. The intervention consisted of a visual cue (list of target behaviors taped to his desk/table), verbal cues from his teacher and caregiver instructing him to not engage in the target behaviors during the specified time period, a contingency which allowed N.L. to choose from a grab bag at the end of the specified time period if he had fewer than 3 target behaviors marked by his teacher or caregiver, and a school-home note reporting N.L.'s daily behaviors. If N.L. had fewer than 3 target behaviors listed on his daily school-home note and a daily behavior grade of 'A' or 'B' he was able to earn a special privilege (i.e. playing video games) when he got home from school that day.

After the initial baseline phase, the intervention was implemented by the classroom teacher and caregiver in the respective settings during a specified time period

for two hours in each setting each day (Monday – Friday). The intervention was in place for a total of 25 days, however, due to suspensions, absences, and incomplete data collected by the teacher and caregiver on some days, data were collected for a total of only 17 days in the school setting and 13 days in the home setting. After the implementation of the intervention, the average rate of the target behaviors (i.e. verbal aggression, physical aggression, and off-task) decreased to 0.65, 0.29, and 1.12, respectively, in the classroom setting and 0.31, 0.0, and 0.77, respectively, in the home setting.

As a part of N.L.'s behavior intervention plan, he was able to earn the opportunity to choose from his grab bag in the classroom if he exhibited less than three of the target behaviors in the specified two-hour time period. Data provided by the teacher, including verbal reports and completed behavior observation record form (including reward for the day), indicated that N.L. earned rewards from the grab bag ten out of the 17 intervention days. N.L.'s behavior intervention plan also included a school-home note in which the total number of target behaviors he exhibited in that day were written in a box along with a 'behavior grade' determined by the teacher for that day and if he earned less than the goal, i.e. 3 target behaviors for that day he was able to earn a special privilege at home. Verbal reports from N.L.'s caregiver indicated that he earned his privilege seven of the ten days he had met the target behavior goal. Caregiver report indicated that on the other three days that N.L. met the behavior goal that they did not see the school-home note to know they should provide him with the special privilege.

Evaluation. The BASC II Parent and Teacher forms were administered at baseline and following treatment, during the TEI, to determine perceived changes in the child's

challenging behavior. The effects of the intervention were evaluated by determining whether the scale scores that were in the clinical range had moved to the normal range. Ratings provided by N.L.'s teacher in regards to his externalizing behaviors in the classroom setting fell within the clinically significant range (i.e., T score = 70) during the baseline phase and fell into the 'at-risk' range (i.e., T score = 63) after implementation of the intervention. Thus, indicating a decrease in the teacher's ratings of N.L.'s externalizing behavior. Ratings provided by N.L.'s caregiver in regards to the externalizing behaviors exhibited in the home setting fell within the 'clinically significant' range (i.e., T-score = 72) during the baseline phase and fell into the 'at-risk' range (i.e., T-score = 66) after the intervention phase.

Table 6

Case 3: Teacher and Caregiver Ratings on the Externalizing Scales of the BASC II

Scale	Pre-Intervention		Post-Intervention	
	Teacher	Caregiver	Teacher	Caregiver
Hyperactivity	60*	66*	60*	61*
Aggression	76**	74**	65*	68*
Conduct Problems	71**	71**	62*	66*
Externalizing Problems	**70****	**72****	**63***	**66***

Note. * denotes At-Risk ** denotes Clinically Significant

Table 7 presents the descriptive statistics for observational ratings across settings and consultation phases, i.e. baseline and intervention. Figure 3 shows a visual representation of the behavioral observation data collected throughout the baseline and intervention phases by the caregiver and teacher in the respective settings.

Table 7

Case 3: Descriptive Statistics for Observational Ratings in the Home and School Settings

Target Behavior	Baseline	Intervention	PND
Verbal Aggression			
Home	0.78 (0.79)	0.31 (0.46)	0
School	3.50 (1.50)	0.65 (0.76)	82.4
Physical Aggression			
Home	0	0	0
School	2.40 (1.11)	0.29 (0.46)	70.6
Off-Task			
Home	2.89 (0.74)	0.77 (0.58)	92.3
School	4.30 (1.00)	1.12 (1.18)	58.8

Note. All values for baseline and intervention are mean rates of behavior across observations within each setting and phase. Standard deviations are in parentheses. PND = Percentage of non-overlapping data between baseline and treatment phases (Tawney & Gast, 1984).

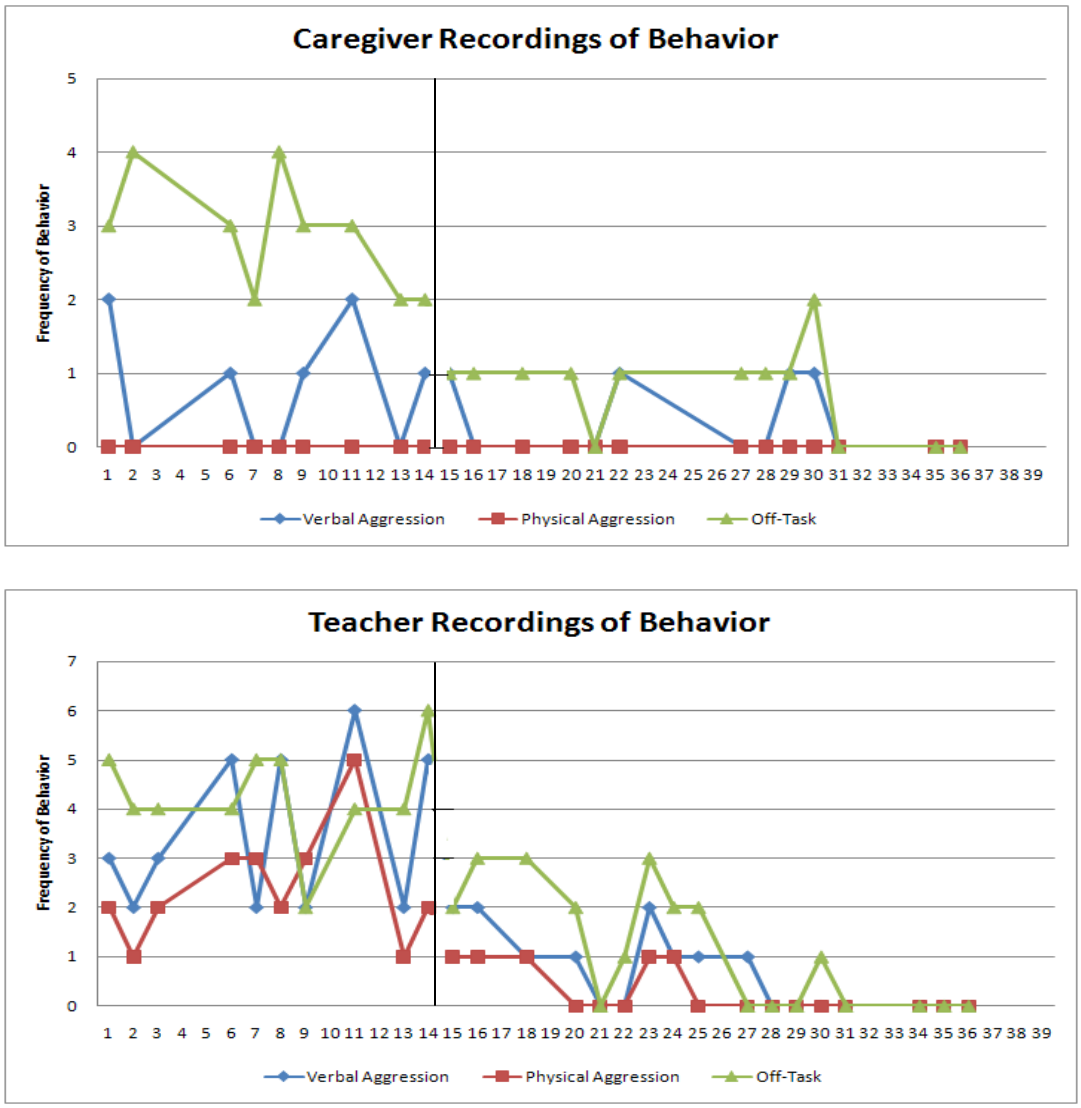


Figure 3. Caregiver and Teacher Observational Recordings of the Frequency of the Target Behaviors across Baseline and Intervention Phases for N.L.

Note. Data reported in the graphs above represent consecutive school days.

Following the analyses of caregiver and teacher observational ratings, behavior effect sizes were calculated for each target behavior. Effect sizes reported in negative units reflect a reduction in problem behavior. The magnitude of behavioral change in the home setting for N.L.'s three target behaviors (verbal aggression, physical aggression, and off-task) were -0.59, 0.0, and -2.88, respectively. Thus, indicating no intervention

effect on physical aggression, a moderate effect on verbal aggression, and a large intervention effect on off-task behavior in the home setting. The magnitude of behavioral change in the school setting for N.L.'s three target behaviors (verbal aggression, physical aggression, and off-task) were -1.90, -1.89, and -3.17, respectively, indicating a strong improvement in N.L.'s behavioral control in the school setting.

Procedural and Treatment Integrity

The CBC Objectives Checklists completed by the consultant indicated 100% adherence to CBC procedural requirements for every case. The independent observer who listened to the audiotaped sessions for each of the three cases also indicated the CBC process for each of the three cases was implemented with 100% integrity. The teachers' and caregivers' fidelity with the CBC process (i.e. participation in CBC meetings) was also 100% in all three cases. Each of the three caregivers participated in the first CBC meeting at the respective elementary school; however, they all participated in the second two CBC meetings via phone conference.

For each of the three cases in the school setting, the weekly observer agreement between the teacher and consultant was 100%. The overall average of treatment integrity for F.D.'s caregiver was 36%, while the treatment integrity of his teacher was 72%. R.R.'s caregiver's treatment integrity was 64% and his teacher's was 75%. Finally, the treatment integrity of N.L.'s caregiver was 44% while the teacher's treatment integrity was 86%. The teacher's in all three cases had the highest levels of treatment integrity for the implementation of the intervention ranging from 72% to 86% while the caregivers' overall treatment integrity ranged from 36% to 64%. Table 8 (below) shows the

caregivers' and teachers' treatment integrity in the specific areas of the consultation and intervention processes.

Table 8

Summary of Caregivers' and Teachers' Treatment Integrity

	F.D.	R.R.	N.L.
Caregiver Treatment Integrity with Intervention	**36%**	**64%**	**44%**
Data Collection	55%	83%	61%
Intervention Checklist	16%	39%	29%
School-Home Note	36%	70%	41%
Teacher Treatment Integrity with Intervention	**72%**	**75%**	**86%**
Data Collection	82%	86%	93%
Intervention Checklist	59%	58%	71%
School-Home Note	76%	82%	94%

Note. Data provided indicate the percentage of steps implemented with integrity for each specific area of the intervention. Percentages were calculated by dividing the number of steps followed by the total number of steps involved in that area of the intervention.

Treatment Acceptability

The second and third administration of the *BIRS* and *CEF* were administered by the consultant via telephone to both F.D.'s and N.L's caregivers because they participated in the interview meetings via telephone. Data regarding the subjective ratings of treatment acceptability for caregivers and teachers are summarized in Table 9. The overall mean scores on the *BIRS* for F.D.'s, R.R.'s, and N.L.'s caregivers were 4.21, 4.78, and 4.49, respectively, on the *BIRS'* 1-6 scale. Mean ratings were 5.42, 5.58, and 5.00 for

their teachers. Results indicate overall, the teachers had higher levels of treatment acceptability than the caregivers, however, ratings by both groups indicate moderately high levels of treatment acceptability.

The overall mean scores on the *CEF* for F.D., R.R., and N.L.'s caregivers were 6.63, 6.50, and 6.37, respectively, on the *CEF's* 1-7 scale. The mean ratings for F.D.'s, R.R.'s, and N.L.'s teachers were 7.00, 7.00, and 6.50, thus indicating a high level of satisfaction with the effectiveness of the consultant. Results indicate that the teachers had a slightly higher level of satisfaction with the effectiveness of the consultant than the caregivers, however, ratings by both groups indicate high levels of satisfaction.

Table 9

Summary of Caregivers and Teachers' BIRS and CEF Scores

	F.D.	R.R.	N.L.
***BIRS* Caregiver Acceptability**	**4.11**	**4.61**	**4.38**
PAI	3.33	3.36	3.80
Intervention	4.07	5.33	3.93
TEI	4.93	5.13	5.40
***BIRS* Caregiver Effectiveness**	**4.67**	**5.35**	**5.00**
PAI	4.00	4.63	4.43
Intervention	5.00	5.86	5.00
TEI	5.00	5.57	5.57
***BIRS* Caregiver Time to Effect**	**3.33**	**3.83**	**3.50**
PAI	3.00	3.00	3.00
Intervention	3.00	4.50	3.00
TEI	4.00	4.00	4.50
***BIRS* Caregiver Total**	**4.21**	**4.78**	**4.49**
PAI	3.50	3.75	3.92
Intervention	4.25	5.42	4.17
TEI	4.88	5.17	5.38
***CEF* Caregiver**	**6.63**	**6.50**	**6.37**
PAI	6.10	5.50	5.40
Intervention	6.90	7.00	6.70
TEI	6.90	7.00	7.00

Table 9 continues on the next page

***BIRS* Teacher Acceptability**	**5.67**	**5.78**	**5.31**
PAI	5.67	5.73	5.40
Intervention	5.47	5.73	5.47
TEI	5.87	5.87	5.07
***BIRS* Teacher Effectiveness**	**5.43**	**5.71**	**4.81**
PAI	5.29	5.57	4.71
Intervention	5.43	5.71	5.00
TEI	5.57	5.86	4.71
***BIRS* Teacher Time to Effect**	**3.50**	**3.67**	**3.33**
PAI	2.00	1.00	4.50
Intervention	3.50	5.00	2.00
TEI	5.00	5.00	3.50
***BIRS* Teacher Total**	**5.42**	**5.58**	**5.00**
PAI	5.25	5.29	5.13
Intervention	5.29	5.67	5.04
TEI	5.71	5.79	4.83
***CEF* Teacher**	**7.00**	**7.00**	**6.50**
PAI	7.00	7.00	6.30
Intervention	7.00	7.00	6.50
TEI	7.00	7.00	6.70

Note. Data are based on mean item scores for each participant from the *BIRS*, a 6-point Likert-scale instrument, '6' being the highest possible rating.

Data are based on mean item scores for each participant from the *CEF*, a 7-point Likert-scale instrument, '7' being the highest possible rating.

Summary of Findings

Research Question #1: Were the behavioral interventions implemented within the context of CBC effective in reducing the frequency of the targeted externalizing behaviors exhibited by the child at school?

The findings in this study indicate that CBC and the behavioral intervention were associated with positive behavior changes in the school setting in all three cases. Figure 3 shows a graphical presentation of behaviors observed in the school setting for all three

cases, in non-concurrent multiple baseline format. Visual (graphic) analysis indicated a positive change in trend and calculations of effect sizes that indicated a large intervention effect on the externalizing behaviors in all three cases. Percentage of Non-Overlapping Data calculations indicated a low percentage of overlapping data points for two of the three target behaviors for N.L., but high percentages of overlapping data points in all of the externalizing behaviors exhibited by F.D. and R.R. BASC II measures resulted in statistically significant and clinically meaningful changes in the teachers' perceptions of the students' challenging behavior following CBC. See next page for graph of results.

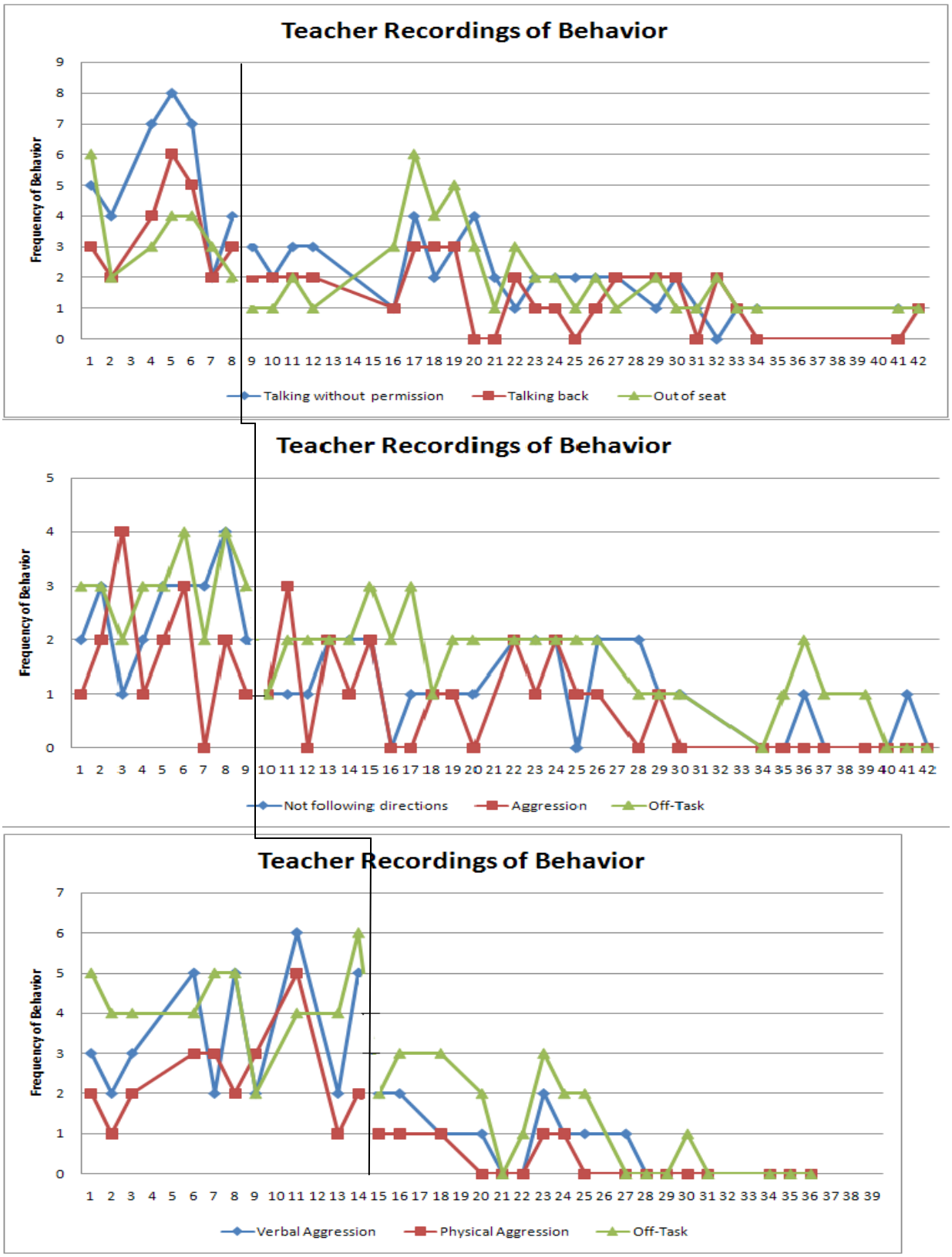


Figure 4. Data observed for the target behaviors of all three cases in the school setting.

Research Question #2: Were the behavioral interventions implemented within the context of CBC effective in reducing the frequency of the targeted externalizing behaviors exhibited by the child at home?

The findings in this study indicate that CBC and the behavioral intervention were associated with positive behavior changes in the home setting in all three cases. Figure 4 shows a graphical presentation of behaviors observed in the school setting for all three cases in non-concurrent multiple baseline format. Visual (graphic) analysis indicated a positive change in trend and calculations of effect sizes that indicated a large intervention effect on over half of the externalizing behaviors exhibited in all three cases. Percentage of Non-Overlapping Data calculations indicated a low percentage of overlapping data points for one of the three target behaviors for N.L., moderate overlap in data points for one of the R.R.'s target behaviors, but high percentages of overlapping data points in the other two behaviors of N.L. and R.R. and all of the externalizing behaviors exhibited by F.D. BASC II measures resulted in statistically significant and clinically meaningful changes in the caregivers' perceptions of the children's challenging behavior following CBC. See next page for graph of results.

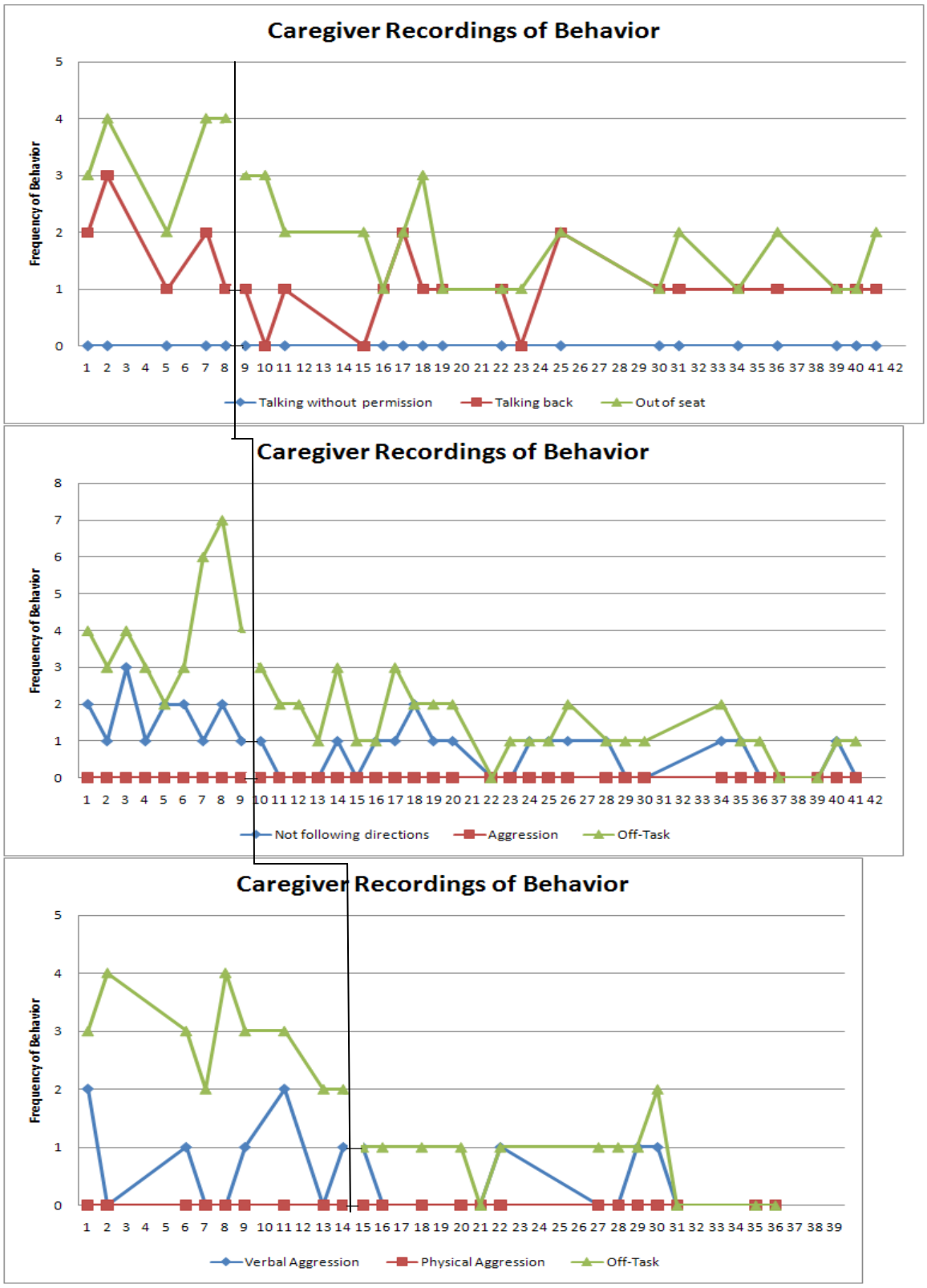


Figure 5. Data observed for the target behaviors of all three cases in the home setting.

Research Question #3: What was the level of procedural and treatment integrity of teachers and caregivers of ethnic minority status with the CBC process and implementation of a behavioral intervention plan?

Procedural integrity of CBC as measured by the consultant and independent observer was reported to be 100%, indicating the CBC process was implemented the way it was intended to be implemented. Participation in the CBC meetings was 100%, however, each of the three caregivers attended the first meeting at the school but participated in the second two meetings via phone conference. The overall average of the intervention implementation treatment integrity for F.D.'s caregiver was 36% while the treatment integrity of his teacher was 72%. R.R.'s caregiver's treatment integrity was 64% and his teacher's was 75%. Finally, the treatment integrity of N.L.'s caregiver was 44% while the teacher's treatment integrity was 86%. The teacher's in all three cases had the highest levels of treatment integrity for the implementation of the intervention ranging from 72% to 86% while the caregivers' overall treatment integrity ranged from 36% to 64%.

Research Question #4: Was conjoint behavioral consultation an acceptable form of service delivery for teachers and ethnic minority families in this low-SES, urban school setting?

The overall mean scores on the *BIRS* for F.D., R.R., and N.L.'s caregivers were 4.21, 4.78, and 4.49, respectively. Mean ratings were 5.42, 5.58, and 5.00 for their teachers. Results indicate overall, the teachers had higher levels of treatment acceptability than the caregivers, however, ratings by both groups, on a scale of 1-6, indicate moderately high levels of treatment acceptability.

The overall mean scores on the *CEF* for F.D., R.R., and N.L.'s caregivers were 6.63, 6.50, and 6.37, respectively. The mean ratings for F.D., R.R., and N.L.'s teachers were 7.00, 7.00, and 6.50, thus indicating a high level of satisfaction with the effectiveness of the consultant. Results indicate that the teachers had a slightly higher level of satisfaction with the effectiveness of the consultant than the caregivers, however, ratings by both groups, on a scale of 1-7, indicate high levels of satisfaction.

CHAPTER V

DISCUSSION

The primary purpose of this study was to evaluate the effectiveness, integrity, and acceptability of behavioral interventions implemented within the context of CBC in an urban setting with clients of ethnic minority status. Conjoint behavioral consultation was implemented and outcomes were evaluated by comparing pre- and post-scores on rating scales as well as by monitoring behavioral and integrity data on a daily basis throughout the baseline and intervention phases of this study.

Discussion of Results

To date, published accounts of CBC have mostly reported on its high effectiveness with middle class, White clients from the Western and Midwestern part of the United States (e.g. Galloway & Sheridan, 1994; Garbacz, Woods, Swanger-Gagne, Taylor, Black, & Sheridan, 2008; Lasecki, Olympia, Clark, Jenson, & Heathfield, 2008; Wiener, Sheridan, & Jenson, 1998) . Little to no published accounts exist regarding the effectiveness or acceptability of CBC with poor, inner-city clients in predominantly ethnic minority schools (Sheridan, 2000). Discussion of the results will follow a format dictated by the study's four substantive questions. These questions consider the effectiveness, integrity, and acceptability of behavioral interventions developed and implemented in low-SES, largely ethnic minority urban elementary schools using

conjoint behavioral consultation.

Research Question #1: Will behavioral interventions developed and implemented within the context of CBC be effective in reducing the frequency of the targeted externalizing behaviors exhibited by the child at school?

The interventions implemented within the school setting appeared to be effective in all three cases. Analysis of the scores on the pre- and post-BASC II rating scales completed by the teachers indicated a decrease in the externalizing problems scale in all three cases. Teacher ratings on the BASC II in all three of the cases indicated scores in the Clinically Significant range prior to the baseline period and in the At-Risk range after the intervention period. Visual analysis of the data as well as the calculation of effect sizes also indicated reductions in the externalizing behaviors exhibited in the school setting for all three cases.

There were high levels of overlapping data between the baseline phase and intervention phase for all subjects with the exception of two of N.L.'s three target behaviors. This high percentage of overlap was due to the variability of data for each of the subjects. This would suggest that little experimental control was established. However, decreases in the variability in the treatment data, i.e. smaller standard deviations occurred for six of the nine target behaviors being monitored in the three cases. It can be hypothesized that with the extension of treatment, behavioral performance may have been stabilized. Based on these data, there is evidence that the implementation of a behavioral intervention within the context of CBC may be an effective model of service delivery in an urban school setting with teachers of ethnic

minority status. However, caution must be used when interpreting this data because it is not possible to conclude that experimental control was established in this study.

Research Question #2: Will behavioral interventions developed and implemented within the context of CBC be effective in reducing the frequency of the targeted externalizing behaviors exhibited by the child at home?

The effects of the behavioral intervention developed and implemented within the context of CBC in the home setting also showed reductions in the externalizing behaviors exhibited by the children in all three cases. However, the significance of these reductions in the home setting were not as clear. Data indicated low levels of intervention follow-through in the home setting. Therefore, even if there was a positive difference in the behaviors exhibited in the home setting, it would be difficult to conclude with certainty that the changes were because of the intervention. Additionally, no direct observations were conducted in the home setting, again making it difficult to be certain any positive behavior changes occurred because of the intervention.

Analysis of the scores on the pre- and post-BASC II rating scales completed by the caregivers indicated a decrease in the externalizing problems scale in all three cases. Caregiver ratings on the BASC II in cases 1 and 2 indicated scores in the At-Risk range prior to the baseline period and in the Average range after the intervention period. Caregiver ratings on the BASC II in case 3 indicated scores in the Clinically Significant range prior to the baseline period and in the At-Risk range after the intervention period. Visual analysis of the data as well as the calculation of effect sizes also indicated reductions in the externalizing behaviors exhibited in the home setting for all three cases.

High levels of overlapping data between the baseline phase and intervention phase for all subjects with the exception of one of N.L.'s three target behaviors and one of R.R.'s three target behaviors would suggest that little experimental control was established. The high percentage of overlap was due to the variability of data for each of the subjects. However, decreases in the variability in the treatment data, i.e. smaller standard deviations occurred for six of the nine target behaviors being monitored in the three cases. It can again be hypothesized that with the extension of treatment, behavioral performance may have been stabilized. Based on these data, it is possible to say that the implementation of a behavioral intervention within the context of CBC may be an effective model of service delivery in an urban setting with caregivers of ethnic minority status. However, this data would also indicate that caution must be used when addressing the needs of this population as one may have to make modifications to the traditional CBC process.

Research Question #3: Will teachers and caregivers at these low-SES, predominantly ethnic minority schools participate and carry out behavioral intervention plans developed using CBC for children with externalizing behavior problems with adequate integrity?

The procedural integrity of the CBC process (i.e. consultant's and consultees' implementation and participation in the CBC process) was 100% for participants in all three cases. Overall, the majority of interventions in the school and home settings were not implemented with adequate integrity (i.e. at least 80%.) The average treatment integrity of the caregivers in the home setting was 48%, while the average treatment integrity of the teachers in the school setting was 78%.

Although the average treatment integrity of the caregivers was almost 50%, average levels of integrity ranged from 36%-64% across the three cases. In addition, some areas of the intervention process, such as the intervention checklist, were carried out by caregivers with levels of integrity as low as 16% (for F.D.), whereas other areas, such as data collection, were carried out with integrity levels as high as 83% (for R.R.). It is difficult to be certain that even the reported levels of integrity are accurate for the caregivers as no direct observations were conducted in the home setting.

However, these data also indicate that caregivers of ethnic minority status in the urban setting are not as likely to participate in CBC and implement the behavioral intervention as intended. It is also important to note that the data previously mentioned only account for half of the low-SES caregivers of ethnic minority status who initially agreed to participate in this study. Consideration also must be given to the three caregivers who were dropped from the study because of no follow-through with the CBC meetings or data collection, even after multiple attempts were made to engage them in the process.

Integrity of the teacher's implementation of the intervention was monitored by the consultant for two hours each week. The average level of treatment integrity for the teachers was 78%, with treatment integrity ranging from 72% to 86%. Based on these data, it appears that teachers of ethnic minority status in an urban school district are likely to participate in CBC and implement the behavioral interventions as intended.

Research Question #4: How acceptable will conjoint behavioral consultation be as a form of service delivery for teachers and families in this low-SES, ethnic minority urban school setting?

Acceptability ratings provided by the teachers and caregivers in all three cases indicated moderately high ratings of the behavioral intervention and consultation with the caregiver average ratings 4.49 on a scale of 1-6 on the *BIRS* and 6.5 on a scale of 1-7 on the *CEF*. The average ratings for the teachers were 5.33 on a scale of 1-6 on the *BIRS* and 6.83 on a scale of 1-7 on the *CEF*. These data provide evidence that teachers and caregivers found the intervention and consultation process to be an acceptable form of service delivery. However, it must be noted that the three caregivers who were dropped from the study due to lack of participation and response to the consultant did not complete the *BIRS* and *CEF*. Their lack of participation in the process that had been explained to them suggests that the stressors those caregivers were experiencing, which clearly constituted barriers to their participation, may be an indicator of low acceptability or limited feasibility of either the CBC process itself or of the behavioral intervention designed within CBC.

Information gathered from the caregivers throughout this study identified several stressors and barriers many of the participating families experienced on a daily basis. Specific stressors and barriers faced by the families identified in this study included conflicting work schedules, transportation difficulties, financial concerns (i.e. disconnected phones due to not paying the bill), irregular living arrangements (i.e. children staying with different family members on a regular basis) and beliefs regarding the intervention process that were not facilitative of home-school collaboration (i.e. if the child is having more problems at school than at home, it is up to the school to deal with the problems).

Not only did the caregivers of three of the six children initially accepted into this study fail follow through with participation due to these significant impediments, but the caregivers who did follow through also required modification to the traditional CBC practices in order to complete the CBC process. Of the nine interviews that were conducted, six were carried out over the telephone, due to the caregivers' inability to be physically present at the CBC meetings. In addition, weekly phone calls from the consultant to monitor data collection and intervention implementation turned into daily phone calls due to the lack of data returned via permanent products, i.e. behavior observation record forms and intervention checklists. This information, together with the treatment integrity data from the home setting, suggests that CBC in its traditional form may not be as acceptable or as feasible a form of service delivery for impoverished, inner-city families as the participating caretakers' high *BIRS* and *CEF* ratings would seem to indicate.

Strengths and Limitations of the Study

This study contributes to the conjoint behavioral consultation literature base in several ways. Most importantly, this study explored CBC with a population that has received minimal attention in the literature. Specific characteristics of the population in this study include teachers and caregivers of ethnic minority status, families of low SES, and externalizing behavior concerns in both the school and home settings. The effectiveness, integrity, and acceptability of the behavioral interventions implemented within the context of CBC were inconsistent in most cases and nonexistent in three of the cases that were dropped due to lack of initial participation and response to the consultant. Thus, indicating CBC, in its original form, may be a difficult model of service delivery to

utilize when working with caregivers and families living in situations of high stress due to environmental factors, i.e. family composition, SES, home setting. However, the reduction in externalizing behavior concerns in both the school and home settings in all three cases provide indications that with appropriate modifications and follow-up this model may be effective when working with teachers and caregivers in similar settings.

Another contribution made by this study includes the identification of modifications to the CBC process that may increase the integrity with which caregivers from impoverished inner-city settings participate in the CBC procedures and carry out the treatment developed in the consultation process. In this study, participation in the CBC process was enhanced by the consultant allowing caregivers to participate in CBC meetings via phone conference. Also, implementation of the behavioral interventions by caregivers was facilitated by the consultant following up on the caregivers' data collection and intervention implementation with daily phone calls. However, despite these innovations, caregiver treatment integrity was still low on some measures, and many of these caregivers (half of the original sample) were too stressed to participate or to respond to the consultant at all, despite modifications and additional prompts. Caution may be needed when utilizing the CBC model with impoverished inner-city families.

These findings suggest new areas of research for using CBC and other consultation models to implement interventions with teachers and caregivers from diverse backgrounds. Information gathered throughout this study indicate that differences must be acknowledged and addressed when working with teachers and caregivers of ethnic minority status in an urban setting. The modifications made to the intervention and CBC process in this study proved to be effective for increasing the treatment integrity of

caregivers who were experiencing barriers that were preventing their full participation in the consultation process. Through informal discussion with the caregivers during the study, it became clear to the consultant that regular telephone contact was needed for the implementation of the CBC process, specifically, to gather treatment data and allow the caretakers to participate in the consultation interviews.

There are a number of limitations of this study that must be acknowledged. First of all, the researcher began this study during the second semester of the school year and time constraints were such that only three sets of participants fit the inclusionary criteria and completed the necessary steps to continue throughout the study. Also due to the time constraints, low integrity by the consultees, and missing data throughout the baseline and intervention phases, follow-up data were unable to be obtained during the school year. The small number of participants and lack of follow-up data brings into question the generalizability and external validity of the findings.

Single subject design is not a limitation, but the small sample size compounded by other limitations including missing data, moderate levels of treatment integrity, and inconsistent patterns of behavioral performance is a limitation of the current study. Modifications were made during this study at an attempt to reduce such limitations. Specifically, behavioral data from the home setting were not returned as anticipated, so the consultant began phoning the caregivers on a daily basis to obtain information related to behavioral performance and treatment integrity. However, missing data continued to be a concern due to lack of response by the caregivers, absences, and suspensions from school. Modifications were also made to the intervention and CBC process so the conslutees could report behavioral data via phone calls and participate in CBC meetings

via phone conference. Although these attempts were made to decrease limitations of missing data and low integrity, they also created an additional limitation of not having permanent products of the behavioral and integrity data completed by the caregivers in the home setting.

A final limitation of this study concerns the reliance on self-report data from the teachers and caregivers. The consultant did observe in the classroom on a weekly basis to assess the teacher's integrity of the behavioral data as well as the implementation of the intervention, however, data from the remaining four days a week were based on the teacher's report of the data. No direct observations were conducted in the home setting, so all data regarding behavioral performance and treatment integrity in the home setting were based on reports obtained from the caregiver. Future research should include additional direct observations in both environments to ensure data is collected, interventions are implemented, and data is reported with high levels of integrity.

In addition to the self-report data for behavioral performance and treatment integrity, treatment acceptability of the behavioral intervention and CBC process was also assessed through the client's responses on acceptability rating scales. The apparent inconsistency between the lower levels of treatment integrity demonstrated by the caregivers and their high ratings of acceptability on the *BIRS* and *CEF* raises questions about the possibility that caregivers' high ratings on the acceptability scales may have been influenced by response bias. Gresham and Lopez (1996) indicated that integrity and use are behavioral measures of treatment acceptability that constitute a measure of treatment acceptability that is more direct and meaningful than rating scales. Thus, the actual acceptability of the behavioral intervention and CBC to these low-SES, inner city,

ethnic minority caregivers may have been much lower than they indicated on the *BIRS* and *CEF*.

Implications for Practice

This study was one of the first to examine the effectiveness, treatment integrity, and acceptability of implementing behavioral interventions in the context of CBC with teachers and caregivers of ethnic minority status in an urban setting. This study adds to the current literature by providing important information about using behavioral interventions within the context of CBC with a minority population. Results suggested that teachers were more likely to implement the behavioral interventions and comply with the CBC process than the caregivers, but they also viewed the problems as a greater concern than the caregivers.

Although the results of this study indicated that both the teachers and caregivers reported the behavior interventions and CBC process as an acceptable form of service delivery, the variability in the data and moderate levels of treatment integrity imply some caution should be used when interpreting the reports of acceptability.

In addition, modifications were made to the original behavioral interventions and CBC process to enhance caregiver participation. Specific modifications that were made during this study included participation in CBC meetings via phone conference and reporting daily behavior data via phone calls received from the consultant. Therefore, the information obtained from the results and process of this study indicate a need to modify the original behavioral interventions and CBC model to make it easier for caregivers who face many barriers and stressors in their lives to participate in the behavioral interventions and consultation for their children.

The results and experiences gained from this study revealed that urban, ethnic minority teachers and caregivers reported that behavioral interventions implemented within the context of CBC were effective and acceptable; however, the treatment integrity of the caregivers was in the moderate range. Based on previous research in behavioral consultation, it seems likely that teachers may be more likely to follow through with behavioral interventions and the CBC process because they often view the behavior problems as a larger concern than caregivers. Also, the training and experience teachers have enhances their skills and willingness to follow intervention plans and to collect and record behavioral data. To the extent that this is the case, it emphasizes the importance of informing caregivers about the impact of their child's behavioral functioning on his or her educational and social performance at school, and training them to carry out home-school communication.

It also may be advisable to provide caregivers with additional training in carrying out behavioral interventions, especially when using CBC with caregivers of children with externalizing behavior concerns. Research has shown that caregivers of children with externalizing behavior concerns very often fail to establish clear and appropriate behavioral expectations at home and to apply consequences consistently and appropriately. For this reason, asking caregivers to carry out behavioral interventions consistently and to record behavioral data faithfully may be especially challenging for them. Externalizing behavior concerns can also be a source of frustration and conflict for teachers and caregivers. Specifically, it is often difficult for teachers and caregivers to work closely when it comes to dealing with children with externalizing behavior concerns because they may have differing views about the problems, possible causes of the

behavior problems as well as the possible treatments to use for the externalizing behavior problems. Conjoint behavioral consultation may be more difficult with this population, especially when the behavior problems at home are not seen as significant problems. Conjoint behavioral consultation may be more effective with this population with additional training for the teachers and caregivers and specific modifications made to enhance the treatment integrity of the consultees.

Directions for Future Research

The results as well as the limitations associated with this study provide directions for future research. This study highlighted the need for a better understanding of the factors influencing the effectiveness, integrity, and acceptability of implementing a behavioral intervention within the context of CBC with teachers and caregivers of ethnic minority status in an urban setting. Due to the limited amount of direct research focusing on caregivers of ethnic minority status as treatment agents, factors that impact their ability to implement a behavioral intervention and comply with the CBC process is unclear. Further investigations using CBC with diverse populations is needed to address specific areas of cultural differences and enhance service delivery for all families.

Additional small-N replications would provide additional information relevant to the generalizability of these findings and inferences to similar populations. Meta-analysis of such studies may then address variables including cultural differences, characteristics of consultees and school setting, target behaviors, and types of interventions implemented. Further research could also investigate longer term follow-up on the effects of the study and maintenance of the target behaviors across the home and school settings.

Future studies are needed that compare and contrast CBC with other school-based consultation and problem-solving models when addressing needs of this population. Longitudinal studies that involve CBC and other types of school-based consultation models as experimental groups compared with a control group would provide data as to differences in caregiver involvement and behavior impact over time. These studies need to focus specific attention on the differences in the consultation models and the barriers that are present and interfere with the effectiveness, integrity, and acceptability of the consultation models when working with various populations.

In conclusion, this study assessed the effectiveness, integrity and acceptability of using the CBC model with teachers and caregivers of ethnic minority status in a southern urban setting. Additional research in this area is needed to generalize the findings of this study and offer additional information to practitioners working in the schools with teachers and caregivers from diverse populations. The incorporation of this study into subsequent research is viable in addressing the needs of all populations so all children who experience difficulties in the home and school environments may experience success.

REFERENCES

Abramowitz, A.J. & O'Leary, S.G. (1991). Behavioral interventions for the classroom: Implications for students with ADHD. *School Psychology Review, 20,* 220-234.

Arkoosh, M.K., Derby, K.M., Wacker, D.P., Berg, W., McLaughlin, T.F., & Barretto, A. (2007). A descriptive evaluation of long-term treatment integrity. *Behavior Modification, 31,* 880-895.

Armbruster, P. & Fallon, T. (1994). Clinical, sociodemographic, and systems risk factors for attrition in a children's mental health clinic. *American Journal of Orthopsychiatry, 64,* 577-585.

Armbruster, P. & Schwab-Stone, M.E. (1994). Sociodemographic characteristics of dropouts from a child guidance clinic. *Hospital and Community Psychiatry, 45,* 804-808.

Armstrong, K.J., Ehrhardt, K.E., Cool, R.T., & Pollen, A. (1997). Social validity and treatment integrity data: Reporting in articles published in *Journal of Developmental and Physical Disabilities,* 1991-1995. *Journal of Developmental and Physical Disabilities, 9,* 359-367.

Auster, E.R., Feeney-Kettler, K.A., & Kratochwill, T.R. (2006). Conjoint Behavioral Consultation: Application to the school-based treatment of anxiety disorders. *Education and Treatment of Children, 29,* 243-256.

Baekeland, F. & Lundwall, L. (1975). Dropping out of treatment: A critical review.

Psychological Bulletin, 82, 738-783.

Bank, L., Patterson, G.R., & Reid, J.B. (1987). Delinquency prevention through training parents in family management. *Behavior Analyst, 10,* 75-82.

Bergan, J.R. (1977). *Behavioral Consultation.* Columbus, Ohio: Charles E. Merrill.

Bergan, J.R. (1990). Contributions of behavioral psychology to school psychology. In T.B. Gutkin & C.R. Reynolds (Eds.), *The handbook of school psychology (2nd ed.,* pp. 126-142). New York: Wiley.

Brandenburg, N.A., Friedman, R.M., & Silver, S.E. (1990). The epidemiology of childhood psychiatric disorders. Prevalence findings from recent studies. *Journal of the American Academy of Child and Adolescent Psychiatry, 29,* 76-83.

Brofenbrenner, U. (1979). *The ecology of human development.* Cambridge, MA: Harvard University Press.

Burns, B.J., Phillips, S.D., Wagner, H.R., Barth, R.P., Kolko, D.J., Campbell, Y., & Landsverk, J. (2004). Mental health need and access to mental health services by youths involved with child welfare: A national survey. *Journal of the American Academy of Child and Adolescent Psychiatry, 43,* 960-971.

Campbell, S.B. & Ewing, L.J. (1990). Follow-up of hard-to-manage preschoolers: Adjustment at age 9 and predictors of continuing symptoms. *Journal of Child Psychology and Psychiatry, 31,* 871-889.

Cardillo, J.E. & Smith, A. (1994). Psychometric issues. In T.J. Kiresuk, A. Smith, & J.E. Cardillo (Eds.), *Goal attainment scaling: Application, theory and measurement.* (p. 173-241). Hillsdale, NJ: Lawrence Erlbaum Associates, Inc.

Carrington-Rotto, P., &Kratochwill, T. R. (1994). Behavioral consultation with parents:

Using competency-based training to modify child noncompliance. *School Psychology Review, 23*,669–693.

Christenson, S.L. (1995). Families and schools: What is the role of the school psychologist? *School Psychology Quarterly, 10*, 118-132.

Christenson, S.L., Rounds, T., & Franklin, M.J. (1992). Home school collaboration: Effects, issues and outcomes. In S. Christenson & J. Conoley (Eds.), *Home school collaboration: Enhancing children's academic and social competence* (pp. 19-51). Silver Spring, MD: National Association of School Psychologists.

Christenson, S.L. & Sheridan, S.M. (2001). *Schools and families: Creating essential connections for learning.* New York: Guilford.

Clark, D. & Fiedler, C.R. (2003). Building family-school relationships during the assessment and intervention process. In M.J. Breen & C.R. Fiedler (Eds.), *Behavioral approach to assessment of youth with emotional/behavioral disorders* (pp. 561-585). Austin, TX: Pro-Ed.

Colton, D.L. Sheridan, S.M. (1998). Conjoint behavioral consultation and social skills training: Enhancing the play behaviors of boys with attention deficit hyperactivity disorder. *Journal of Educational & Psychological Consultation, 9*, 3-29.

Cowan, R.J. & Sheridan, S.M. (2003). Investigating the acceptability of behavioral interventions in applied conjoint behavioral consultation: Moving from analog conditions to naturalistic conditions. *School Psychology Quarterly, 18,* 1-21.

Doll, B. & Kratochwill, T.R. (1992). Treatment of parent-adolescent conflict through behavioral technology training: A case study. *Journal of Educational and Psychological Consultation, 3*, 281-300.

Dore, M.M. & Lee, J.M. (1999). The role of parent training with abusive and neglectful parents. *Family Relations, 48,* 313-325.

Doss, L. & Reichle, J. (1991). Replacing excess behavior with an initial communicative repertoire. In J. Reichle, J. York, & J. Sigafoos (Eds.), Implementing augmentative and alternative communication: Strategies for learners with severe disabilities (pp. 215-237). Baltimore: Brooks.

Dumas, J.E. (1984a). Child, adult-interactional, and socioeconomic setting events as predictors of parent training outcome. *Education and Treatment of Children, 7,* 351–363.

Dumas, J.E. (1984b). Interactional correlates of treatment outcome in behavioral parent training. *Journal of Consulting and Clinical Psychology, 52,* 946–954.

Dumas, J.E., LaFreniere, P.J., Beaudin, L. & Verlaan, P., (1992). Mother-child interactions in competent and aggressive dyads: Implications of relationship stress for behavior therapy with families. *New Zealand Journal of Psychology, 21,* 3-13.

Dumas, J.E. & Wekerle, C. (1995). Maternal reports of child behavior problems and personal distress as predictors of dysfunctional parenting. *Development and Psychopathology, 7,*465-479.

Duncan, Jr., S. & Farley, A.M. (1990). Achieving parent-child coordination through convention: Fixed- and variable-sequence conventions, *Child Development, 61,* 742-753.

Dunson, III, R. M., Hughes, J. N., & Jackson, T. W. (1994). Effect of behavioral consultation on student and teacher behavior. *Journal of School Psychology, 32,* 247–266.

DuPaul, G.J. & Stoner, G. (1994). *ADHD in the Schools: Assessment and Intervention Strategies.* New York: Guilford Press.

Egeland, B., Kalkoske, M., & Gottesman, N. (1990). Preschool behavior problems: Stability and factors accounting for change. *Journal of Child Psychology and Psychiatry, 31,* 891-909.

Elliot, S.N. & Sheridan, S.M. (1992). Consultation and teaming: Problem solving interactions among educators, parents and support personnel. *Elementary School Journal, 92,* 261-284.

Erchul, W.P. (1987). A relational communication analysis of control in school consultation. *Professional School Psychology, 2,* 113-124.

Evans, J. & Lunt, I. (2002). Inclusive education: Are there limits? *European Journal of Special Needs Education, 17,* 1-14.

Freer, P. & Watson, T.S. (1999). A comparison of parent and teacher acceptability ratings of behavioral and conjoint behavioral consultation. *School Psychology Review, 28,* 672-684.

Furey, W.M. & Basili, L.A. (1988). Predicting consumer satisfaction in parent training for noncompliant children. *Behavior Therapy, 19,* 555-564.

Galloway, J. & Sheridan, S.M. (1994). Implementing scientific practices through case studies: Examples using home-school interventions and consultation. *Journal of School Psychology, 32,* 385-413.

Gmeider, K. L., & Kratochwill, T. R. (1998). Short-term, home-based intervention for child noncompliance using behavioral consultation and a self-help manual. *Journal of Educational and Psychological Consultation, 9,* 91–117.

Gortmaker, V., Warnes, E.D., & Sheridan, S.M. (2004). Conjoint behavioral consultation: Involving parents and teachers in the treatment of a child with selective mutism. *Proven Practice, 5,* 66-72.

Gould, M.S., Shaffer, D. & Kaplan, D. (1985). The characteristics of dropouts from a child psychiatry clinic. *Journal of the American Academy of Child Psychiatry, 24,* 316-328.

Gresham, F.M. (1997). Treatment integrity in single-subject research. In R.D. Franklin, D.B. Allison, & B.S. Gorman (Eds.), *Design and analysis in single-case research* (pp. 93-117). Hillsdale, NJ: Lawrence Erlbaum.

Gresham, F.M., Gansle, K.A., & Noell, G.H. (1993). Treatment integrity in applied behavioral analysis with children. *Journal of Applied Behavior Analysis, 26,* 257-263.

Gresham, F.M. & Kendell, G.K. (1987). School consultation research: Methodological critique and future research directions. *School Psychology Review, 16,* 306-316.

Gresham, F. M., & Lopez, M. F. (1996). Social validation: A unifying concept for school-based consultation research and practice. *School Psychology Quarterly, 11*, 204-227.

Gresham, F.M., Macmillan, D.L., Beebe-Frankenberger, M.E., & Bocian, K.M. (2000). Treatment integrity in learning disabilities intervention research: Do we really know how treatments are implemented? *Learning Disabilities Research & Practice, 15,* 198-205.

Gutkin, T.B. (1980). Teacher perceptions of consultation services provided by school psychologists. *Professional Psychology, 11,* 637-642.

Hagermoser, S.L.M., Sanetti, L.M., Luiselli, J.K., Handler, M.W. (2007). Effects of verbal and graphic performance feedback on behavior support plan implementation in a public elementary school. *Behavior Modification, 31,* 454-465.

Hawkins, J.D., Catalano, R.F., & Miller, J.Y. (1992). Risk and protective factors for alcohol and other drug problems in adolescence and early adulthood: Implications for substance-abuse prevention. *Psychological Bulletin, 112,* 64-105.

Hayes, S.C., Barlow, D.H., & Nelson-Gray, R.O. (1999). *The scientist practitioner: Research and accountability in clinical and educational settings.* New York: Pergamon Press.

Heflin, J.L. & Bullock, L.M. (1999). Inclusion of students with emotional/behavioral disorders: A survey of teachers in general and special education. *Preventing School Failure, 43,* 103-112.

Jurbergs, N., Palcic, J., & Kelley, M.L. (2007). School-home notes with and without response cost: Increasing attention and academic performance in low-income children with attention-deficit/hyperactivity disorder. *School Psychology Quarterly, 22,* 358-379.

Kaplan, J.M. & Smith, W.G. (1977). The use of goal attainment scaling in the valuation of a regional mental health program. *Community Mental Health Journal, 12,* 188-193.

Kavale, K.A. & Forness, S.R. (2000). History, rhetoric, and reality: Analysis of the inclusion debate. *Remedial and Special Education, 21,* 279-296.

Kazdin, A.E. (1993). Treatment of conduct disorder: Progress and directions in

psychotherapy research. *Development and Psychopathology, 5,* 277-310.

Kazdin, A.E. & Mazurick, J.L. (1994). Dropping out of child psychotherapy: Distinguishing early and late dropouts over the course of treatment. *Journal of Consulting and ClinicalPsychology, 62,* 1069-1074.

Kazdin, A.E., Mazurick, J.L. & Bass, D. (1993). Risk for attrition in treatment of antisocial children and families. *Journal of Clinical Child Psychology, 22,* 2-16.

Kazdin, A.E., Mazurick, J.L. & Siegel, T.C. (1993). Treatment outcome among children with externalizing disorder who terminate prematurely versus those who complete psychotherapy. *Journal of the American Academy of Child and Adolescent Psychiatry, 33,* 549-557.

Kazdin, A.E., Stolar, M.J. & Marciano, P.L. (1995). Risk factors for dropping out of treatment among White and Black families. *Journal of Family Psychology, 9,* 412-417.

Kazdin, A.E., & Wassell, G. (2000). Therapeutic changes in children, parents, and families resulting from treatment of children with conduct problems. *Journal of the American Academy of Child and Adolescent Psychiatry, 39*, 414–420.

Keenan, K., Shaw, D., & Delliquadri, E. (1998). Evidence for the continuity of early problem behaviors: Application of a developmental model. *Journal of Abnormal Child Psychology, 26,* 441-452.

Kendall, P.C. & Sugarman, A. (1997). Attrition in the treatment of childhood anxiety disorders. *Journal of Consulting and Clinical Psychology, 65,* 883-888.

Kelley, M.L (1990). *School-home notes: Promoting children's classroom success.* New York: Guilford Press.

Knapp, P.A., & Deluty, R.H. (1989). Relative effectiveness of two behavioral parent training programs. *Journal of Clinical Child Psychology, 18,* 314–322.

Kosterman, R., Haggerty, K.P., Spoth, R. & Redmond, C. (2004). Unique influence of mothers and fathers on their children's antisocial behavior. *Journal of Marriage and Family, 66,* 762-779.

Kratochwill, T.R. & Bergan, J.R. (1978). Training school psychologists: Some perspectives on a competency-based behavioral consultation model. *Professional Psychology, 9,* 71-82.

Kratochwill, T.R. & Bergan, J.R. (1990). *Behavioral consultation in applied settings: An individual guide.* New York: Plenum.

Kratochwill, T.R., Elliot, S.N., & Busse, R.T. (1996). Behavioral consultation: A five-year evaluation of consultant and client outcomes. *School Psychology Quarterly, 10,* 87-117.

Kratochwill, T.R. & Sheridan, S.M. (1990). Advances in behavioral assessment. In C.R. Reynolds & T.B. Gutkin (Eds.), *Handbook of school psychology* (2nd ed.; pp. 364-382). New York: Wiley.

Luiselli, J.K. & Diament, C. (Eds.) (2002). *Behavior psychology in the schools: Innovations in evaluation, support, and consultation.* New York: The Hawthorn Press.

Marion, M. (1983). Child compliance: A review of the literature with implications for family life education. *Family Relations, 32,* 545-555.

Martens, B.K. & Muller, P.J. (1990). The application of behavioral principles to

educational settings. In T.B. Gutkin & C.R. Reynolds (Eds.), *The handbook of school psychology (2nd ed.*, pp. 612-634). New York: Wiley.

Maughan, D.R., Christiansen, E., Jenson, W.R., Olympia, D. & Clark E. (2005). Behavioral parent training as a treatment for externalizing behaviors and disruptive behavior disorders: A meta-analysis. *School Psychology Review, 34,* 267-286.

McCain, A.P. & Kelley, M.L. (1993). Managing the classroom behavior of an ADHD preschooler: The efficacy of a school-home note intervention. *Child & Family Behavior Therapy, 15,* 33-44.

McMahon, R.J., Forehand, R. & Griest, D.L. (1981). Effects of knowledge of social learning principles on enhancing treatment outcome and generalization in a parent training program. *Journal of Consulting and Clinical Psychology, 49,* 526-532.

Medrich, E.A., Roizen, V.R., Rubin, V. & Duckley, S. (1982). *The serious business of growing up: A study of children's lives outside school.* Berkeley: University of California Press.

Miller, T.W. (1975). Praise or criticism with children. *Journal of Family Counseling, 3,* 55-57.

Mortenson, B.P. & Witt, J.C. (1998). The use of weekly performance feedback to increase teacher implementation of a prereferral academic intervention. *School Psychology Review, 27,* 613-627.

Noell, G.H., Gresham, F.M., & Gansle, K.A. (2002). Does treatment integrity matter? A preliminary investigation of instructional implementation and mathematics performance. *Journal of Behavioral Education, 11,* 51-67.

Noell, G.H., Witt, J.C., Gilbertson, D.N., Ranier, D.D., & Freeland, J.T. (1997). Increasing teacher intervention implementation in general education settings through consultation and performance feedback. *School Psychology Quarterly, 12,* 77-88.

Noell, G.H., Witt, J.C., LaFleur, L.H., Mortenson, B.P., Ranier, D.D., & LeVelle, J. (2000). Increasing intervention implementation in general education following consultation: A comparison of two follow-up strategies. *Journal of Applied Behavior Analysis, 33,* 271-284.

Noell, G.H., Witt, J.C., Slider, N.J., Connell, J.E., Gatti, S.L., & Williams, K.L. (2005). Treatment implementation following behavioral consultation in the schools: A comparison of three follow-up strategies. *School Psychology Review, 34,* 87-106.

Novick, J., Benson, R. & Rembar, J. (1981). Patterns of termination in an outpatient clinic for children and adolescents. *Journal of the American Academy of Child Psychiatry, 20,* 834-844.

Patterson, G.R. (1982). *A social learning approach: III. Coercive family process*. Eugene, OR: Castalia.

Patterson, G.R. & Stouthamer-Loeber, M. (1984). The correlation of family management practices and delinquency. *Child Development, 55,* 1299-1307.

Pehrson, K.L. & Robinson, C.C. (1990). Parent education: Does it make a difference? *Child Study Journal, 20,* 221-237.

Perrino, T., Coatsworth, J.D., Briones, E., Pantin, H. & Szapocznik, J. (2001). Initial engagement in parent-centered preventive interventions: A family systems perspective. *The Journal of Primary Prevention, 22,* 21-44.

Prinz, & Miller, (1994). Family-based treatment for childhood antisocial behavior: Experimental influences on dropout and engagement. *Journal of Consulting and Clinical Psychology,62,* 645-650.

Reichle, J., McEvoy, M., Davis, C., Rogers, E., Feeley, K., Johnston, S. & Wolff, K. (1996). Coordinating pre-service and in-service training of early interventionists to serve preschoolers who engage in challenging behavior. In R. Kogel, L. Kogel, & G. Dunlap (Eds.), Positive behavioral support (pp. 227-257). Baltimore: Brooks.

Reid, J.B. & Patterson, G.R. (1991). Early prevention and intervention with conduct problems: A social interactional model for the integration of research and practice. In G. Stoner, M.R. Shinn, & H.M. Walker (Eds.), *Interventions for achievement and behavior problems* (pp. 715-740). Silver Spring, MD: The National Association of School Psychologists.

Rotto, P.C. & Kratochwill, T.R. (1994). Behavioral consultation with parents: Using competency-based training to modify child noncompliance. *School Psychology Review, 23,* 669-693.

Rouse, M. & Florian, L. (1996). Effective inclusive schools: A study in two countries. *Cambridge Journal of Education, 26,* 71-85.

Routh, C.P., Hill, J.W., Steele, H., Elliot, C.E., & Deweys, M.E. (1995). Maternal attachment status, psychosocial stressors and problem behavior: Follow-up after parent training courses for conduct disorder. *Journal of Child Psychology and Psychiatry, 36,* 1179–1198.

Schumaker, J.B., Hovel, M.F., & Sherman, J.A. (1977). An analysis of daily report cards

and parent-management privileges in the improvement of adolescents' classroom performance. *Journal of Applied Behavior Analysis, 10,* 449-464.

Scruggs, T.E. & Mastropieri, M.A. (1996). Teacher perceptions of mainstreaming/ inclusion, 1985-1995: A research synthesis. *Exceptional Children, 63,* 59-74.

Sheridan, S.M. (1997). Conceptual and empirical bases of CBC. *School Psychology Quarterly, 12,* 119-133.

Sheridan, S.M. & Colton, D.L. (1994). Conjoint behavioral consultation: A review and case study. *Journal of Educational and Psychological Consultation, 5,* 211-228.

Sheridan, S.M., Eagle, J.W., Cowan, R.J., & Mickelson, W. (2001). The effects of conjoint behavioral consultation: Results of a four year investigation. *Journal of School Psychology, 30,* 139-177.

Sheridan, S.M., Eagle, J.W., & Doll, B. (2006). An examination of the efficacy of conjoint behavioral consultation with diverse clients. *School Psychology Quarterly, 21,* 396-417.

Sheridan, S.M. & Kratochwill, T.R. (1992). Behavioral parent teacher consultation: Conceptual and research considerations. *Journal of School Psychology, 30,* 117-139.

Sheridan, S.M., Kratochwill, T.R., & Bergan, J.R. (1996). *Conjoint Behavioral Consultation: A procedural manual.* New York: Plenum Press.

Sheridan, S.M., Kratochwill, T.R. & Elliot, S.N. (1990). Behavioral consultation with parents and teachers: Applications with socially withdrawn children. *School Psychology Review, 19,* 33-52.

Sheridan, S.M., Welch, M., & Orme, S.F. (1996). Is consultation effective? A review of

outcome research. *Remedial and Special Education, 17,* 341-354.

Short, R.J. & Shapiro, S.K. (1993). Conduct disorders: A framework for understanding and intervention in schools and community. *School Psychology Review, 22,* 362-375.

Skrtic, T.M. (1991). The special education paradox: Equity as the way to excellence. *Harvard Educational Review, 61,* 148-206.

Sterling-Turner, H.E., Watson, T.S., & Moore, J.W. (2002). The effects of direct training and treatment integrity on treatment outcomes in school consultation. *School Psychology Quarterly, 17,* 47-77.

Strand, P.S. (2000). Responsive parent and child socialization: Integrating two contexts of family life. *Journal of Child and Family Studies, 9,* 269-281.

Tawney, J.W. & Gast, D.L. (1984). *Single subject research in special education.* Columbus, OH: Charles E. Merrill.

Von Brock, M.B. & Elliot, S.N. (1987). Influence of treatment effectiveness information on the acceptability of classroom interventions. *Journal of School Psychology, 25,* 131-144.

Webster-Stratton, C. (1985). Predictors of treatment outcome in parent training for conduct disordered children. *Behavior Therapy, 16,* 223–243.

Webster-Stratton, C. (1992). Individually administered videotape parent training: Who benefits? *Cognitive Therapy and Research, 16,* 31–52.

Webster-Stratton, C. (1993). Strategies for helping early school-age children with oppositional defiant and conduct disorders: The importance of home-school partnerships. *School Psychology Review, 22,* 437-457.

Webster-Stratton, C., & Hammond, M. (1990). Predictors of treatment outcome in parent training for families with conduct problem children. *Behavior Therapy, 21,* 319–337.

Weiner, R.K., Sheridan, S.M., & Jenson, W.R. (1998). The effects of conjoint behavioral consultation and a structured homework program on math completion and accuracy in junior high students. *School Psychology Quarterly, 13,* 281-309.

Wickstrom, K.F., Jones, K.M., LaFleur, L.H., & Witt, J.C. (1998). An analysis of treatment integrity in school-based behavioral consultation. *School Psychology Quarterly, 13,* 141-154.

Wierzbicki, M. & Pekarik, G. (1993). A meta-analysis of psychotherapy dropout. *Professional Psychology Research and Practice, 24,* 190-195.

Wilkinson, L.A. (2005). Bridging the research-to-practice gap in school-based consultation: An example using case studies. *Journal of Educational and Psychological Consultation, 16,* 175-200.

Witt, J.C., Noell, G.H., LaFleur, L.H., & Mortenson, B.P. (1997). Teacher use of interventions in general education settings: Measurement and analysis of the independent variable. *Journal of Applied Behavior Analysis, 30,* 693-696.

Yeaton, W.H. & Sechrest, L. (1981). Critical dimension in the choice and maintenance of successful treatments: Strength, integrity, and effectiveness. *Journal of Consulting and Clinical Psychology, 49,* 156-167.

APPENDICES

APPENDIX A

COVER LETTER FOR PARTICIPATING TEACHERS AND CAREGIVERS

Dear Teachers and Caregivers,

I would first like to thank you for your participation in this research study. The time and effort you are putting in to assist with this study is greatly appreciated. My name is Tammi Beckman, I am a doctoral student at Oklahoma State University currently working on my doctoral dissertation. Your participation in this research study will not only help me complete the requirements of my program but also provide professionals in this field with a better understanding of the most effective ways we can provide services to meet the needs of you and the children for whom you are responsible.

I have chosen to collect data for my dissertation at the elementary schools within the Recovery School District that I am currently assigned. I am interested in studying a consultation model that allows caregivers and teachers to be involved and work together when addressing behavior concerns across settings (school and home). Your participation in this research study is very important and has the potential to help consultants develop a better understanding of how they can better meet the needs of the children, teachers, and caregivers they serve.

Thank you again for participating in this research study. Please do not hesitate to contact the number provided on the informed consent form with any questions or concerns.

Sincerely,

Tammi Beckman, Ed.S.

School Psychology Doctoral Intern

LSU Pupil Appraisal and Support Services

(504) 914-9976

tbeckm@lsuhsc.edu

APPENDIX BPARENT/CAREGIVER PERMISSION FORM

Project: Treatment Integrity and Child Outcomes: Conjoint Behavioral Consultation in an Urban Setting with Clients of Ethnic Minority Status

Investigator: Tammi Beckman, Ed.S., Doctoral Candidate at Oklahoma State University and School Psychology Doctoral Intern with the LSU – Pupil Appraisal and Support Services Team

Purpose: The purpose of this study is to examine the effectiveness of a consultation model that involves a consultant working with the teacher and caregiver together to address their concerns for a child. This study will specifically look at using this model when addressing behavior concerns of children and families of ethnic minority status in an urban school setting. The data collected will include demographic information about the child and his/her family as well as provide information about the child's behavior and the caregiver's treatment follow through and acceptability with this consultation model. You are invited to participate in this research study because you were referred for behavioral consultation services for behavior concerns that were brought to the attention of the elementary school building level committee.

Procedures: After reading the consent form, you may voluntarily decide to participate in this study and sign the permission form. You will first be asked to complete a Behavior Assessment System for Children rating form to determine if the referred child's behavior meets criteria for this study. If the child's behavior meets the criteria, you will receive a research packet which will include all paperwork needed to get started with the consultation process. This packet will include (a) a cover letter inviting you to participate,

(b) two copies of the informed consent (one for you to keep for your records), (c) one copy of the Demographic Information Sheet, and (d) a blank envelope in which the completed paperwork can be sealed and returned to the consultant at the elementary school. The consultant will explain the information contained on this permission form that you will be asked to sign.

During the consultation process, you will be invited to participate in approximately four sessions and carry out the intervention plan we design during the second session. All four sessions will be audiotaped by the consultant and listened to by other interns in the field to make sure the consultation process is being followed. You will also be given copies of the Behavior Observation Record Form, and Intervention Treatment Integrity Checklist to complete on a daily basis. At the beginning of the intervention and about two weeks after you start the intervention, you will be asked to complete two forms: the Behavior Intervention Rating Scale and the Consultant Evaluation Form. Finally, at the end of the consultation and intervention process, you will be given another BASC II form, Behavior Intervention Rating Scale, and Consultant Evaluation Form to complete and return to the consultant.

Risks of Participation: No known risks greater than for typical day-to-day educational procedures. Your child will be offered the same consultation services regardless of your agreement to participate in this research study.

Benefits: Your participation in this consultation process will provide you with an opportunity to learn skills to accurately identify and manage difficult behaviors. Results of this study will also provide psychoeducational consultants with more direction for

services that may be helpful in assisting teachers and caregivers of ethnic minority status when dealing with behavior concerns in the school and home setting in an urban setting.

Confidentiality: The records of this study will be kept private. Any written results will discuss findings using a fake name and will not include information that will identify you or your child. Research records, including all audiotapes, will be stored securely and only researchers and individuals responsible for research oversight will have access to the records. It is possible that the consent process and data collection will be observed by research oversight staff responsible for safeguarding the rights and wellbeing of people who participate in research.

Compensation: You will be offered a $10 gift certificate to a local fast-food restaurant for returning all of the paperwork to the final 'follow-up' session.

Contacts: You may ask questions regarding this research and have these questions answered before agreeing to participate or during the study. You may call the principal investigator, Tammi Beckman at (504)914-9976 or the research advisor Dr. Georgette Yetter, telephone (405) 744-2445 at any time to discuss this research. If you have questions about the research and your rights as a research volunteer, you may contact Dr. Shelia Kennison, IRB Chair, 219 Cordell North, (405) 744-1676 or irb@okstate.edu.

Participants' Rights: You are free to decide not to participate in this study or to withdraw at any time without reprisal or penalty.

I have read and fully understand the consent form. I understand that I am giving consent for my participation in this study as well as for information regarding my child, i.e. gender, age, ethnicity and information regarding his/her behavior, to be used as a part of this research study. I sign it freely and voluntarily. A copy of this form has been given to me.

_____ _____

Signature of Participant Date

I certify that I have personally explained this document before requesting that the participant sign it.

_____ _____

Signature of Principal Investigator Date

APPENDIX CCAREGIVER DEMOGRAPHIC INFORMATION SHEET

Parent(s) or Caregiver(s): Please answer the following questions and return this form to the consultant prior to leaving the school. Thank you very much for your help!

Child Information:

Child's Age: _____ Child's Gender: _____ Male _____ Female

Ethnicity: _____ African American _____ Hispanic _____ Caucasian

_____ Other: _____

Caregiver / Family Information:

Relationship to Child: _____

Caregiver's Age: _____ Caregiver's Gender: _____ Male _____ Female

Caregiver's Ethnicity: _____ African American _____ Hispanic

_____ Caucasian _____ Other: _____

Marital Status (check one):

_____ Married and living with spouse

_____ Separated or divorced and receive support payments

_____ Separated or divorced and receive no support

_____ A widow or widower

_____ Single, never married

Education (check one):

_____ Less than 7th grade

_____ Part of high school

_____ High school graduate

_____ Part of college

_____ College or university graduate

_____ Graduate professional training (graduate degree)

Does your child qualify for the Free or Reduced Price Lunch Program at school?

_____ Yes _____ No

APPENDIX DTEACHER DEMOGRAPHIC SHEET

Teachers: Please answer the following questions and return this form to the consultant before leaving the school today. Thank you very much for your help!

Teacher Information:

Gender: _____ Male _____ Female

Ethnicity: _____ African American _____ Hispanic _____ Caucasian

_____ Other: _____

Years of College Completed: _____

Degree Earned: _____

Years of Teaching Experience: _____

Current Primary Teaching Assignment: _____

(e.g. first grade regular education)

Current Classroom Supports: _____ Full-time Paraprofessional

_____ Part-time Paraprofessional

_____ Co-Teacher

_____ Computers in the Classroom

_____ Other: _____

APPENDIX E

BEHAVIOR OBSERVATION

RECORD FORM

STUDENT NAME: _____ WEEK OF: _____

TARGET BEHAVIOR	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY

**PLACE A TALLY MARK IN THE CORRESPONDING DAY AND BEHAVIOR CELL FOR EACH TIME THE STUDENT EXHIBITS THE TARGET BEHAVIOR.

ADDITIONAL COMMENTS: APPENDIX F

BEHAVIOR INTERVENTION RATING SCALE (BIRS)

Please circle the number that best describes your agreement (6) or disagreement (1) with each statement.

1. Consultation was an acceptable intervention for the child's problem behavior.

1 2 3 4 5 6

2. Most parents and teachers would find consultation appropriate for other behavior problems.

   1 2 3 4 5 6

3. Consultation was effective in changing the child's problem behavior.

   1 2 3 4 5 6

4. I would suggest the use of consultation to other parents and teachers.

   1 2 3 4 5 6

5. The child's behavior problem was severe enough to warrant the use of consultation.

   1 2 3 4 5 6

6. Most parents and teachers would find consultation suitable for the child's problem.

   1 2 3 4 5 6

7. I would be willing to use consultation again.

   1 2 3 4 5 6

8. Consultation should not result in negative side-effects for the child.

   1 2 3 4 5 6

9. Consultation would be appropriate for a variety of children.

1 2 3 4 5 6

10. Consultation is consistent with other methods I have used in the past.

1 2 3 4 5 6

11. Consultation was a fair way to handle the child's problem behavior.

1 2 3 4 5 6

12. Consultation is a reasonable approach for the child's problem behavior.

1 2 3 4 5 6

13. I like the procedures used in consultation.

1 2 3 4 5 6

14. Consultation was a good way to handle the child's problem behavior.

1 2 3 4 5 6

15. Overall, consultation should prove beneficial to the child.

1 2 3 4 5 6

16. Consultation quickly improved the child's problem behavior.

1 2 3 4 5 6

17. Consultation should produce a lasting improvement in the child's behavior.

1 2 3 4 5 6

18. Consultation should improve the child's behavior to the point that it does not noticeably deviate from other children's behavior.

1 2 3 4 5 6

19. Soon after using consultation, I noticed a positive change in the problem behavior.

1 2 3 4 5 6

20. The child's behavior should remain at an improved level even after consultation is discontinued.

1 2 3 4 5 6

21. Using consultation should not only improve the child's behavior in the classroom and at home, but in other situations as well.

1 2 3 4 5 6

22. When comparing the child with a well-behaved peer before and after use of consultation, the child's and the peer's behavior would be more alike after using consultation.

1 2 3 4 5 6

23. Consultation should produce enough improvement in the child's behavior so that the behavior is no longer a problem.

1 2 3 4 5 6

24. Other behaviors related to the problem behavior are likely to be improved by consultation.

1 2 3 4 5 6

APPENDIX G

Consultant Evaluation Form (CEF)

Please evaluate the consultant by circling the number which best describes your agreement (7) or disagreement (1) with each statement.

1. The consultant was generally helpful.

   1 2 3 4 5 6 7

2. The consultant offered useful information.

   1 2 3 4 5 6 7

3. The consultant's ideas as to the primary goals of schools were similar to my own.

   1 2 3 4 5 6 7

4. The consultant helped me find alternative solutions to problems.

   1 2 3 4 5 6 7

5. The consultant was a good listener.

   1 2 3 4 5 6 7

6. The consultant helped identify useful resources.

   1 2 3 4 5 6 7

7. The consultant fit well into the schools environment.

   1 2 3 4 5 6 7

8. The consultant encouraged me to consider a number of points of view.

   1 2 3 4 5 6 7

9. The consultant viewed his or her role as a collaborator rather than an expert.

   1 2 3 4 5 6 7

10. The consultant helped me find ways to apply the content of our discussions to specific pupil or classroom situations.

    1 2 3 4 5 6 7

11. The consultant was able to offer assistance without completely “taking over” the management of problems.

    1 2 3 4 5 6 7

12. I would request services from this consultant again, assuming that other consultants were available.

    1 2 3 4 5 6 7

APPENDIX H

CONJOINT BEHAVIORAL CONSULTATION OBJECTIVES CHECKLIST

Observer's Name: _____ Date: _____ Subject ID _____

PROBLEM IDENTIFICATION INTERVIEW (PII)
OBJECTIVES CHECKLIST

Listen to the audiotaped PII provided. Place a checkmark on the line to the left of each item that you believe the consultant addressed. If information is obtained from the parent, place a check in the "home" column. If information is obtained from the teacher, place a check in the "school" column. In some cases, the information will be provided by the consultee without the consultant asking for it. In these cases, the consultant should summarize or repeat the information to the consultee. Use the definitions provided in Kratochwill, Elliott, and Rotto (1990) to ensure consistency and objectivity in your ratings.

Home	School		
_____	_____	1.	Opening salutation
_____	_____	2.	General statement to open discussion
_____	_____	3.	Target behavior definition
_____	_____	4.	Summarize target behavior
_____	_____	5.	Behavior strength
_____	_____	6.	Summarize and validate behavior and strength
_____	_____	7.	Existing procedures
_____	_____	8.	Strengths/Assets
_____	_____	9.	Possible reinforcers
_____	_____	10.	Summarize and validate behavior, strength, goal
_____	_____	11.	Rationale for data collection
			Data collection procedures
_____	_____	12.	*What?*
_____	_____	13.	*Where?*
_____	_____	14.	*How?*
_____	_____	15.	*When?*
_____	_____	16.	Summarize and validate data recording procedures
_____	_____	17.	Next appointment
_____	_____	18.	Closing salutation
_____ Total home	_____ Total school		(divide each by 18)

PERCENT OF OBJECTIVES MET:

_____ % Home _____ % School

Observer's Name: _____ Date: _____ Subject ID _____

PROBLEM ANALYSIS INTERVIEW (PAI-2)
OBJECTIVES CHECKLIST

Joint Meeting with Both Parent and Teacher

Listen to the audiotaped PAI provided. Place a checkmark on the line to the left of each item that you believe the consultant addressed. If information is obtained from the parent, place a check in the "home" column. If information is obtained from the teacher, place a check in the "school" column. In some cases, the information will be provided by the consultee without the consultant asking for it. In these cases, the consultant should summarize or repeat the information to the consultee. Use the definitions provided in Kratochwill, Elliott, and Rotto (1990) to ensure consistency and objectivity in your ratings.

Home	School		
_____	_____	1.	Opening salutation
_____	_____	2.	General statement regarding: data and problem
_____	_____	3.	Behavior strength across settings
_____	_____	4.	Goal of consultation
			Cross-setting plan development
_____	_____	5.	Definition of social skills
_____	_____	6.	Rrationale for social skill intervention
_____	_____	7.	Role of parents and teachers
_____	_____	8.	Reviewed skill categories
_____	_____	9.	Brief overview of school plan
_____	_____	10.	Discussed individual components of plan (home)
_____	_____	11.	Provided rationale for use of reinforcement
_____	_____	12.	Discussed how to deliver verbal reinforcement
_____	_____	13.	Discussed how to deliver material/edible reinforcement
			Observation and practice (with parents)
_____	_____	14.	Demonstration by consultant
_____	_____	15.	Role plays
_____	_____	16.	Trouble shooting
			Individualizing the plan (at home)
_____	_____	17.	When and where intervention will occur How will the play environment be structured
_____	_____	18.	What will the reinforcement plan look like (i.e., kinds of rewards and schedule for delivery)
_____	_____	19.	Summarize and validate plan
_____	_____	20.	Data recording procedures
_____	_____	21.	Next appointment
_____	_____	22.	Closing salutation

_____ Total home _____ Total school (divide each by 22)

PERCENT OF OBJECTIVES MET:

_____ % Home _____ % School

Observer's Name: _____ Date: _____ Subject ID _____

TREATMENT EVALUATION INTERVIEW
OBJECTIVES CHECKLIST

Listen to the audiotaped TEI provided. Place a checkmark on the line to the left of each item that you believe the consultant addressed. If information is obtained from the parent, place a check in the "home" column. If information is obtained from the teacher, place a check in the "school" column. In some cases, the information will be provided by the consultee without the consultant asking for it. In these cases, the consultant should summarize or repeat the information to the consultee. Use the definitions provided in Kratochwill, Elliott, and Rotto (1990) to ensure consistency and objectivity in your ratings.

Home	School		
_____	_____	1.	Opening salutation
_____	_____	2.	Questions regarding procedures and outcome
_____	_____	3.	Questions about goal attainment
			If goal has <u>not</u> been attained:
_____	_____	4.	Plan modifications
_____	_____	5.	Next appointment
			If goal <u>has</u> been attained:
_____	_____	4.	Plan effectiveness
_____	_____	5.	External validity
_____	_____	6.	Post-implementation planning
_____	_____	7.	Procedures for generalization/maintenance
_____	_____	8.	Follow-up assessment procedures
_____	_____	9.	Need for future interviews
_____	_____	10.	Termination of consultation
_____	_____	6/11.	Closing salutation
____ Total home	_____	Total school	(divide each by 6 or 11)

PERCENT OF OBJECTIVES MET:

_____ % Home_____ % School

APPENDIX I

BEHAVIOR PLAN INTERVENTION CHECKLIST
(EXAMPLE)

Materials Needed: Self-Monitoring Behavior Sheet (posted on the student's desk), Grab Bag with Reward Slips, BIP Checklist, Behavior Observation Recording Form, Daily School-Home Note.

At the beginning of each school day, place the "intervention folder" which contains all of the materials needed for this intervention in a location convenient to the teacher, i.e. desk, near student's desk. Each day double check to make sure the Self-Monitoring Behavior Sheet is posted on the student's desk. Begin the intervention steps listed below:

School Intervention Steps

_____1. Review the behaviors on the Self-Monitoring Behavior Sheet with the student at the beginning of the school day.

Point to the student's Self-Monitoring Behavior Sheet posted on his desk and say: *We are beginning a new school day, you have a chance to earn a reward from the grab bag if you have less than ____ marks on your paper at the end of the morning. I will help you remember to put a mark on your paper each time you do one of these three things. I too will be keeping track of the number of times you do each behavior so we can check to see if our numbers match at the end of the morning.*

_____2. Monitor the student's behaviors throughout the morning (2 hours).

_____3. Ten minutes before the students are dismissed for lunch review the student's Self-Monitoring Checklist. If there are less than _____ marks on the paper allow the student to choose one slip of paper, which has the reward written on it, from the grab bag. Provide the student with the appropriate reward.

Say: *You did a great job this morning controlling your aggression and staying on task, here is the reward you chose from the grab bag.*

_____4. At the end of each morning, record the total number of behaviors exhibited by the student on the school-home note, indicate the daily behavior grade, initial and send home with the student. Ask the student to return the completed, initialed note to school the next day.

Home Intervention Steps

_____ 1. Ask the child for the Daily School-Home Note the teacher sent home with him.

_____ 2. If the child had less than _____ target behaviors on the Daily School-Home note and a behavior grade of an A or B provide the child with a special reward or privilege at home.

_____ 3. Monitor the child's behaviors during the first 2 hours of contact afterschool. Record the number of target behaviors he has and initial the Daily School-Home Note. Return the note to school with the child the next day.

_____ 4. Continue providing the child with consistent rewards at home for appropriate behavior and removing privileges for inappropriate behavior. Specifically, provide the child with a small reward or privilege for having less than 3 of the target behaviors during the monitoring period after school.

APPENDIX JMEETING ATTENDANCE CHECKLIST

DATE	TIME	LOCATION	PURPOSE	ATTENDEES
				1. 2.
				1. 2.
				1. 2.
				1. 2.
				1. 2.

APPENDIX KTEACHER PERMISSION FORM

Project: Treatment Integrity and Child Outcomes: Conjoint Behavioral Consultation in an Urban Setting with Clients of Ethnic Minority Status

Investigator: Tammi Beckman, Ed.S., Doctoral Candidate at Oklahoma State University and School Psychology Doctoral Intern with the LSU – Pupil Appraisal and Support Services Team

Purpose: The purpose of this study is to examine the effectiveness of a consultation model that involves a consultant working with the teacher and caregiver together to address their concerns for a child. This study will specifically look at using this model when addressing behavior concerns of children and families of ethnic minority status in an urban school setting. The data collected will provide information about the child's behavior and treatment follow through and acceptability with this consultation model. You are invited to participate in this research study because you were referred for behavioral consultation services for a student's behavior concerns that were brought to the attention of the elementary school building level committee.

Procedures: After reading the consent form, you may voluntarily decide to participate in this study and sign the permission form. You will first be asked to complete a Behavior Assessment System for Children rating form to determine if the referred child's behavior meets criteria for this study. If the child's behavior meets the criteria, you will receive a research packet which will include all paperwork needed to get started with the consultation process. This packet will include (a) a cover letter inviting you to participate, (b) two copies of the informed consent (one for you to keep for your records), (c) one

copy of the Demographic Information Sheet, and (d) a blank envelope in which the completed paperwork can be sealed and returned to the consultant at the elementary school. The consultant will explain the information contained on this permission form that you will be asked to sign.

During the consultation process, you will be invited to participate in approximately four sessions and carry out the intervention plan we design during the second session. All four sessions will be audiotaped by the consultant and listened to by other interns in the field to make sure the consultation process is being followed. You will also be given copies of the Behavior Observation Record Form, and Intervention Treatment Integrity Checklist to complete on a daily basis. At the beginning of the intervention and about two weeks after you start the intervention, you will be asked to complete two forms: the Behavior Intervention Rating Scale and the Consultant Evaluation Form. Finally, at the end of the consultation and intervention process, you will be given another BASC II form, Behavior Intervention Rating Scale, and Consultant Evaluation Form to complete and return to the consultant.

Risks of Participation: No known risks greater than for typical day-to-day educational procedures. Your child will be offered the same consultation services regardless of your agreement to participate in this research study.

Benefits: Your participation in this consultation process will provide you with an opportunity to learn skills to accurately identify and manage difficult behaviors. Results of this study will also provide psychoeducational consultants with more direction for services that may be helpful in assisting teachers and caregivers of ethnic minority status when dealing with behavior concerns in the school and home setting in an urban setting.

Confidentiality: The records of this study will be kept private. Any written results will discuss findings using a fake name and will not include information that will identify you or your child. Research records, including all audiotapes, will be stored securely and only researchers and individuals responsible for research oversight will have access to the records. It is possible that the consent process and data collection will be observed by research oversight staff responsible for safeguarding the rights and wellbeing of people who participate in research.

Compensation: You will be offered a $10 gift certificate to a local fast-food restaurant for returning all of the paperwork to the final 'follow-up' session.

Contacts: You may ask questions regarding this research and have these questions answered before agreeing to participate or during the study. You may call the principal investigator, Tammi Beckman at (504)914-9976 or the research advisor Dr. Georgette Yetter, telephone (405) 744-2445 at any time to discuss this research. If you have questions about the research and your rights as a research volunteer, you may contact Dr. Shelia Kennison, IRB Chair, 219 Cordell North, (405) 744-1676 or irb@okstate.edu.

Participants' Rights: You are free to decide not to participate in this study or to withdraw at any time without reprisal or penalty.

I have read and fully understand the consent form. I sign it freely and voluntarily. A copy of this form has been given to me.

_____ _____

Signature of Participant Date

I certify that I have personally explained this document before requesting that the participant sign it.

_____ _____

Signature of Principal Investigator Date

APPENDIX L

Confidentiality Agreement

I understand that all information to which I may have access or learn about through my support associated this research study, is not to be communicated to anyone or divulged in any manner except as authorized by law or ethical obligations, nor is such information to be altered, copied, interfered with, destroyed or taken. I further understand that all of the information, specifically the audio recordings of the consultation sessions, that I have access to for the purposes of this research study is strictly confidential and is to be used only for monitoring the treatment integrity of the consultation process.

_____ _____

Signature Date

_____

Please print your name here

VITA

Tammi Jean Beckman

Candidate for the Degree of

Doctor of Philosophy

Dissertation: TREATMENT INTEGRITY AND CHILD OUTCOMES: CONJOINT BEHAVIORAL CONSULTATION IN AN URBAN SETTING WITH CLIENTS OF ETHNIC MINORITY STATUS

Major Field: School Psychology

Biographical:

Education:

Completed the requirements for the Doctor of Philosophy Degree in Educational Psychology, Option School Psychology at Oklahoma State University in December, 2008

Completed the requirements for the Education Specialist Degree in School Psychology at the University of Nebraska-Kearney in May, 2004

Completed the requirements for the Bachelor of Science Degree in Social Work at the University of Nebraska-Kearney in May, 2001

Experience: School Psychology Doctoral-Level Intern at Louisiana School Psychology Internship Consortium
Clinical Practicum – OSU School Psychology Clinic
Clinical Practicum – Munroe Meyer Institute, Kearney, NE
Teaching Assistant-Oklahoma State University
Educational Consultant – Day Treatment Center, Kearney, NE
School Psychology Intern – Central Nebraska Supports & Services
Graduate Assistant – University of Nebraska-Kearney

Professional Memberships: NASP, APA, NSPA

Name: Tammi Jean Beckman Date of Degree: December, 2008

Institution: Oklahoma State University Location: Stillwater, Oklahoma

Title of Study: TREATMENT INTEGRITY AND CHILD OUTCOMES: CONJOINT BEHAVIORAL CONSULTATION IN AN URBAN SETTING WITH CLIENTS OF ETHNIC MINORITY STATUS

Pages in Study: 131 Candidate for the Degree of Doctor of Philosophy

Major Field: School Psychology

Scope and Method of Study: Home and school represent two of the most powerful influences in children's lives. Research indicates that students benefit when there is a collaborative relationship between families and educators (Clark & Fiedler, 2003). Conjoint Behavioral Consultation (CBC) is one model that attempts to develop effective partnerships and collaborative relationships between parents and educators (Christenson & Sheridan, 2001). Thus, the purpose of this study was to investigate the effectiveness of CBC in an urban setting with clients of ethnic minority status when addressing externalizing behavior concerns that are present at home and school. In addition, procedural and treatment integrity of the consultation and intervention processes were assessed. Lastly, the acceptability of the CBC model and the interventions derived from the model were investigated. Participants in this study consisted of three sets of caregivers and teachers within an urban school district in southern Louisiana. Participants were asked to complete rating scales related to their behavior concerns, participate in CBC meetings, collect behavior data on an ongoing basis, implement the intervention that was created within the CBC process, and finally to complete rating scales related to the acceptability of the intervention and consultation process.

Findings and Conclusions: Based on the data collected in this study, there is evidence that the application of consultation is an effective model of service delivery in an urban school setting with clients of ethnic minority status. The effectiveness, integrity, and acceptability of the behavioral interventions implemented within the context of CBC in the home setting were inconsistent in most cases and nonexistent in three of the cases that were dropped due to lack of initial participation and response to the consultant. Thus, indicating CBC, in its original form, may be more difficult to effectively implement when working with caregivers and families living in situations of high stress due to environmental factors, i.e. setting, SES, family composition. Although acceptability ratings of the teachers and caregivers included in this study were relatively high, treatment integrity, which according to previous research, may be a more direct measure of treatment acceptability were only in the moderate range with some specific areas in the low range.

ADVISER'S APPROVAL: Dr. Georgette Yetter