# EFFECTIVENESS OF A TREATMENT PROGRAM FOR TODDLERS WITH BEHAVIOR PROBLEMS AND DEVELOPMENTAL DELAYS IN LOW-INCOME FAMILIES

by

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ABSTRACT
EFFECTIVENESS OF A TREATMENT PROGRAM FOR TODDLERS WITH BEHAVIOR PROBLEMS AND DEVELOPMENTAL DELAYS IN LOW-INCOME FAMILIES

April M. Schaack

Marquette University, 2009

Previous research has established a need for treatment of behavioral problems in young children. Various treatment programs have been found to be effective in reducing behavioral problems; however, research is limited in the use of these programs with very young children with developmental delays from low-income families. The present study investigated the use of a parenting program designed specifically for children from low-income families who have developmental delays and externalizing behavior problems. Thirty young children (ages 1-5 years) who had significant behavior problems [meeting the cutoff on the Eyberg Child Behavior Inventory (ECBI) Problem subscale]; and had completed the treatment program were included in the analyses. Results found that after treatment, parents reported significantly higher expectations for their children, as well as a decrease in their use of corporal punishment. In addition, parents reported less intense and less problematic behavior in their children following treatment. After treatment it was found that the children were more likely to comply with parental requests. Furthermore, parents increased their positive interactions with their child and the child displayed more positive behaviors during interactions after treatment resulting in an overall improvement in the parent-child relationship. Treatment also aided in the reduction of the number of children meeting criteria for a psychiatric diagnosis. Overall, parents reported high satisfaction with the treatment program. Overall, it was clear that

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the new parenting program was effective in reducing problematic behavior in children as well as helping parents improve their parent-child interactions. Implications for clinicians are discussed as well as suggestions for future research.

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April M. Schaack

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# Chapter 1—Introduction

A young child is throwing a tantrum in the checkout aisle next to you at the grocery store. You think that this is just typical behavior displayed by young children; yet when are tantrums just a normal part of growing up and when do they cross the line into more severe behavior problems? Many factors contribute to the development of an externalizing behavior problem including the co-morbidity of developmental delays and come from low-income families. Externalizing behavior problems include aggression, poor impulse control, hyperactivity, and defying adults (Keenan & Wakschalg, 2000; Lumley, McNeil, Herschell, & Bahl, 2002). Some externalizing behavior problems reflect a child's normal development, while others may become more severe and persistent (Campbell, Shaw, & Gilliom, 2000; Olson & Hoza, 1993). Campbell (1995) found that about 10-15% of preschool-aged children have at least mild externalizing behavior problems, with half continuing with these problems as they begin school, suggesting that the behaviors do not disappear with the mere passage of time (Barlow & Stewart-Brown, 2000; Campbell, 1990).

The development of behavior problems in young children is influenced by a variety of factors including child risk factors (e.g., temperament) and familial risk factors (e.g., parent-child interactions, low socioeconomic status). These factors help shape a child's behaviors. For example, lower levels of positive interactions between a mother and child and use of more frequent physical punishment have been shown to contribute to the development of challenging behaviors (e.g., aggression) in young children (Brenner & Fox, 1998; McMahon & Forehand, 2003; Olson, Ceballo, & Park, 2002). In addition to the above risk factors, developmental delays also contribute to developing behavior

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problems. Over half of children diagnosed with a developmental delay display behavior problems (Roberts, Mazzucchelli, Taylor, & Reid, 2003), with an increased risk for retaining these behavior problems as they grow older (Feldman, Hancock, Rielly, Mines, & Cairns, 2000).

The presence of identified risk factors along with the possibility that behavior problems may continue past preschool, make early intervention a necessity (Roberts et al., 2003; Simpson, Colpe, & Greenspan, 2003). The literature suggests that parenting programs may be effective in changing parental behaviors, improving children's behavior problems (Nicholson, Anderson, Fox, & Brenner, 2002), improving the child's compliance (Eyberg et al., 2001), and increasing prosocial behaviors (Webster-Stratton, Kolpacoof, & Hollinsworth, 1988). These parenting programs are typically grounded in social learning theory. The programs all use a psycho-educational format by providing information to parents to help them learn how to most effectively respond to their child's behavior problems. These programs incorporate the use of lectures, role-playing, videotape-modeling, and group discussions to help facilitate the changes. Parents are taught different skills to help develop more positive parent-child interactions and reduce behavior problems in children, such as the importance of never ignoring noncompliance (Eyberg & Boggs, 1998), using clear, concise, age-appropriate commands (Herschell, Calzada, Eyberg, & McNeil, 2002), and for parents to stop to think about their feelings and expectations prior to reacting to the child's behavior and subsequently respond in an age-appropriate manner (Fox & Nicholson, 2003).

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## Statement of the Problem

Behavior problems occur in young children, but those young children with developmental delays are at increased risk for developing behavior problems (Roberts et al., 2003). Many children with behavior problems retain these problems as they mature (Campbell, 1995; Feldman et al., 2000). As a result, early intervention is essential to disrupt this escalating cycle (Roberts et al., 2003; Simpson et al., 2003). Despite the positive results found in the literature of using parenting programs with children who have behavior problems, those studies are limited to mainly middle class, older children without developmental delays. Recent studies have begun to look at parents of young children with behavior problems and are finding parenting programs to be effective (Fox, Fox, & Anderson, 1991; Eyberg et al., 2001). Treatment studies examining parenting programs with low-income families are scarce. However, Webster-Stratton (1997) found that providing such a program to these parents resulted in a reduction of critical and harsh parenting styles as well as significant increases in positive and competent discipline. This suggests that low-income families benefit from participating in parenting programs. Studies incorporating low-income parents of developmentally delayed children with behavior problems are limited to a few case studies (McDiarmid & Bagner, 2005). Therefore, additional research is needed on parenting programs serving low-income families that include children with developmental delays who demonstrate externalizing behavior problems.

## Purpose of the Study

The purpose of the current study is to investigate the use of a new parenting program designed specifically for children of low-income families who have

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developmental delays and externalizing behavior problems. This program provides in-home treatment services. Service providers go the families' homes and help enhance the parent-child relationship by educating parents on child-directed play. After parents demonstrate skills in using child-directed play, a behavioral treatment plan is created, incorporating the use of differential reinforcement (i.e., social praise, tangible rewards, or edible rewards) to increase a prosocial behavior as well as discipline strategies (i.e., redirection, ignoring, natural consequences, or time out) to reduce the challenging behaviors. It is expected that families will complete the program, participating in at least six treatment sessions. Specifically, this research is looking to explore whether a new parenting program that incorporates aspects of social learning theory is effective in reducing behavior problems in children with developmental delays and who are from low-income families.

## Research Questions

This study addresses the following research questions:

1. *Do parents change their expectations of their child after treatment as measured by the Parent Behavior Checklist (PBC)?*
2. *Do parents' discipline and nurturing behaviors change after treatment as measured by the PBC?*
3. *Do children's problem behaviors decrease in frequency and intensity after treatment as measured by the Eyberg Child Behavior Inventory (ECBI)?*
4. *Does children's compliance increase after treatment as measured by the compliance trials?*

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5. *Do parent-child interactions improve after treatment as measured by the Parent-Child Relationship Scale and the Parent-Child Interaction Assessment?*
6. *Do children with a psychiatric diagnosis continue to meet the criteria for the diagnosis after treatment as measured by the Kiddie Schedule for Affective Disorders and Schizophrenia for School-Aged Children?*
7. *Do parents report satisfaction with the treatment program?*

Significance of the Study

The main purpose of this study is to establish the effectiveness of a treatment program that helps prevent behavior problems from continuing and reduce related difficulties that these behaviors cause (e.g., developing more intractable behaviors, child abuse, parental stress). There are several reasons for focusing this study on low-income, developmentally delayed children with behavior problems. One reason is to help prevent behavior problems from continuing into childhood and adolescence. In addition, there are few studies that have explored the effectiveness of a parenting program with children with behavior problems from a low-income background who have a developmental delay. Therefore, outcomes determined in this study will help determine if parenting programs will be effective with this population. It also will serve as a foundation in finding programs or developing future programs that will reduce behavior problems with children who have these identified risk factors (developmental delay, low-income status). Furthermore, this study will analyze how parents' behaviors, expectations, and report of child behavior problems change as a result of participating in the program. Knowing how the program affects these reports will enable practitioners to determine how to best help

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parents with young children displaying externalizing behavior problems who have multiple risk factors (e.g., low-income and developmental delay).

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## Chapter 2—Review of the Literature

### Overview

The purpose of the present study is to investigate the effectiveness of an intervention program that focuses on young children from low income families who have developmental disabilities and behavior problems. This chapter will provide an overview of the literature on behavior problems in young children including those with developmental delays. Secondly, this review will examine treatment programs for young children with behavior problems and developmental delays.

In order to gain a clear understanding of what is understood about behavior, we will first explore behavior problems in the general population and what factors contribute to these behaviors. Second, it will be important to gain an understanding of developmental delays in general to help conceptualize how having a developmental delay may impact the presence and display of behavior problems. After general information is understood about developmental delays, the co-occurrence of developmental delays and behavior problems will be explored. Finally, in order to see what is currently occurring to help reduce behavior problems in young children, treatment programs that currently are addressing some or all of these factors will be examined.

### Young Children with Behavior Problems

To fully be able to appreciate the struggles that parents have with children's behaviors, it will be vital to become acquainted with what behavior problems are and how they are displayed. Behaviors directed outwards toward others are known as externalizing behaviors (Wicks-Nelson & Israel, 2003). Externalizing behaviors that are labeled behavior problems are characterized by aggression, poor impulse control,

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defiance, hyperactivity, blaming others for mistakes, destroying other's property, difficulty paying attention, defying adults, losing their tempers, and bullying others (Keenan & Wakschalg, 2000; Lumley et al., 2002). Some externalizing behavior problems may reflect a child's normal development, while others can become more severe and persistent (Campbell et al., 2000; Olson & Hoza, 1993). Although it is often difficult to differentiate whether or not externalizing behaviors are normal for young children (birth-5 years), typical and atypical behavior problems have been distinguished in preschoolers (Keenan & Wakschalg, 2002). For example, Keenan and Wakschalg stated "although noncompliance with adult requests may be normative for toddlers and adolescents, pervasive and persistent defiance is not" (p 352). Noncompliance with parental commands is expected once in a while from young children; however, children who never comply or externalize their noncompliance is not common. Moreover, the severity and persistence of externalizing behavior problems may lead some children to being diagnosed with a psychiatric disorder. Common diagnoses in these young children include Oppositional Defiant Disorder (ODD), Conduct Disorder (CD), and Attention Deficit Hyperactivity Disorder (ADHD). According to the Diagnostic Manual for Mental Health Disorders (American Psychological Association, 2000), psychiatric disorders are uncommon with only 2-16% of all children being diagnosed with ODD, 1-10% diagnosed with CD, and 3-7% diagnosed with ADHD.

To further demonstrate that behavior problems are not common in young children Campbell (1995) reviewed a variety of studies and found that 10-15% of preschool children have mild to moderate behavior problems, which is consistent with the prevalence of psychiatric diagnoses. Earls (1980), using the Behavior Screening

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Questionnaire (BSQ) with a cutoff score of 11, found the prevalence rate of behavior problems to be 11% in 3-year-olds and increasing to 24% when lowering the cutoff score to 10. These results consistently demonstrate that around 10-15% of young children are reported to have significant behavior problems. Research also has found that aggression and other conduct problems have a moderately high level of stability between two and five years of age (Achenbach, Edelbrock, & Howell, 1987; Olson & Hoza, 1993), suggesting that the behaviors do not disappear with the mere passage of time (Barlow & Stewart-Brown, 2000; Campbell, 1990). These problems are maintained in about 50% of the 10-15% of children with behavior problems (Campbell, 1995) as they start school and mature into adolescence, which could interfere with the child's development and schooling (Campbell et al., 2000). Therefore, it is important to intervene at an early age to help reduce these behavior problems from occurring so that the child may become educated, without interfering in their own or other children's ability to learn the information being presented.

*Contributing Factors to Behavior Problems*

To further understand a child's behavior problem, it is important to examine what factors may be contributing to the development of these problems. There is a multitude of determinants for a child's behavior problems (Dunst & Trivette, 1988). They appear to fall into two categories: child risk factors and familial risk factors (McMahon & Forehand, 2003). In addition, low socioeconomic status impacts behavior problems in young children.

*Child Risk Factors.* There are a variety of risk factors for a child developing externalizing behavior problems including, but not limited to, gender, attachment, social

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skills, and temperament (Qi & Kaiser, 2003). Temperament is one of the main child risk factors associated with behavior problems (Earls, 1982; Earls & Jung, 1988; McMahon & Forehand, 2003). Temperament, according to Rothbart (2004), refers to the behaviors and the level of attentiveness that form the early core of individual differences in their personality. Due to the differences in attentiveness, temperament may predict a child's reaction/response to their environment. Specifically, a child with an easy temperament is likely to be more laid-back and flexible to changes in their surroundings; whereas, a child with a difficult temperament is likely to act out when things are not going according to his or her expectations. For example, as a child with a difficult temperament becomes upset with environmental changes (e.g., another child takes one of their toys) and a negative behavior (e.g., hitting the child) may be the child's first response. A child with a difficult temperament may also need additional attention from their caregivers in order to get their needs met. For example, Kochanska, Aksan, and Carlson (2005) found that infants with a difficult temperament who had highly responsive mothers were more likely to be cooperative at the age of two than those difficult children whose mothers were not highly responsive.

Child temperamental characteristics may not only impact how the child responds to others when things are not going as expected, but also impact how a parent responds to the child (Belsky, 1984; Lerner, 1993). For example, a parent may not react as harshly to a two-year-old with a short attention span because it is seen as a normal characteristic of a two-year-old. However, if the young child has a "difficult temperament" and is consistently noncompliant to the parent, the parent may become upset and initiate physical punishment (e.g. spanking). It is within a context of a "difficult temperament"

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and poor parent-child interactions that behavior problems are seen to increase dramatically (Sanson & Rothbart, 1995).

*Familial Risk Factors.* There are many familial risk factors that shape the development of behavior problems in young children such as, but not limited to, (1) parenting stress, (2) maternal depression, (Qi & Kaiser, 2003), (3) negative parent-child interactions (Shaw, Owens, Giovannelli, & Winslow, 2001), and (4) low socioeconomic status. Due to the focus of the present study, familial risk factors of negative parent-child interactions and low socio-economic status will be further examined.

It will first be important to gain an understanding of how negative parent-child interactions impact the development of behavior problems. Recognizing that parent-child interactions provide a risk to a child's behavior, a series of studies found that families who reported better family functioning were more responsive and less imposing during interactions (Dunst & Trivette, 1988). Parents who allow their child the freedom to be creative during play, without commanding the child to behave in a certain manner, report more positive family interactions. Mash and Johnston (1983) found that mothers who reported less value and comfort in their role as parents tended to interact less with their children during play. Lower levels of positive interactions between mother and child and use of more frequent physical punishment have been shown to result in challenging behaviors in children, such as aggression (Brenner & Fox, 1998; McMahon & Forehand, 2003; Olson et al., 2002).

*Low Socioeconomic Status.* Low socioeconomic status also has been linked to behavior problems in young children (Furlong, Morrison, & Jimerson, 2004; Gargiulo, 2006; McLoyd, 1998; Qi & Kaiser, 2004; Stormont, 2002). Low socioeconomic status

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places stress on parents (e.g., financial, work, possibly self-esteem) that may negatively impact their children. According to Lugaila (2003), parents below the poverty level were more likely to feel angry towards their child, believe their child takes up more time than expected, feel the child does things that bothers parents more, and believe their child is harder to care for than most children compared to parents with a higher income status. Furthermore, food hardship is a potential problem for families who receive welfare (Slack & Yoo, 2005). Slack and Yoo (2005) found that food hardship is associated with externalizing behavior problems in young children and is not just an artifact of the general experience of poverty; however, those children who participated in child care or preschool reported lower levels of externalizing problems than those children who were not involved in such activities.

In addition, socioeconomic disadvantage has been associated with poor parenting and parent-child interactions (Furlong et al., 2004). Thus, the more stress parents have related to other life concerns (i.e., finances) the less patience they have for their children, causing them to have poor interactions with their children. These children then search for ways, negative as well as positive, to gain attention from their parents. These parents who are worried about many issues may only respond to negative behaviors, thus reinforcing negative behaviors to continue. The stresses related to living in poverty negatively impact parents' ability to respond to their child in a positive manner and negatively impact parents' use of corporal punishment (McLeod &.Shanahan, 1993), which can be related to an increase in externalizing behavior problems (Eamon, 2000). Fox, Platz, and Bentley (1995) found less nurturing and more discipline use when parenting their young children in mothers who were younger, had more than one child in the home, single, less

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educated, and low-income. These mothers also perceived problematic behaviors in their focus child. If parents respond in a negative manner toward their child, the child is more likely to respond negatively resulting in problematic behaviors.

Young Children with Developmental Delays

Just as low socioeconomic status impacts the development of behavior problems, the presence of developmental delays also contribute to the development of behavior problems. Thus, it is important to first understand what a developmental delay consists of. A developmental delay means the child is not achieving certain skills at the expected age (Mathews, 1998). For example, the expected age for a child to begin walking is around one year of age; however, those with a developmental delay may not begin walking until two years of age or later. At least a 25% delay in one or more areas of development (cognitive, physical, communication, social, emotional, and adaptive) as measured by a standardized instrument (e.g., Bayley Scales of Infant and Toddler Development) must be present to be considered delayed (Department of Health and Family Services Chapter 90, 2004). Being diagnosed with a developmental delay may allow some children access to services they may not otherwise received (e.g., Birth to Three).

In 1986, the Education of the Handicapped Act amendments made it possible for states to diagnosis young children (ages 3-5) with developmental delay in order to provide needed services. Determining the number of children who have a developmental delay is challenging since not all children with developmental delays are receiving services or are officially diagnosed with the delay. In an investigation of the number of children with at least one developmental delay in 2002, the United States Department of

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