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Self-efficacy among parents of children with autism as a function of length of time in home-based applied behavioral analysis treatment

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SELF-EFFICACY AMONG PARENTS OF CHILDREN WITH AUTISM AS A FUNCTION OF LENGTH OF TIME IN HOME-BASED APPLIED BEHAVIORAL ANALYSIS TREATMENT

A Thesis

Presented to the

Faculty of

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In Partial Fulfillment

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Master of Arts

in

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ABSTRACT

Parents of children with autism receiving home-based A.B.A. treatment for their child are exposed to optimal learning opportunities to implement A.B.A. strategies; an important factor in parents' utilizing these strategies is parents' perceived self-efficacy in their parenting role. The purpose of this project was to explore parental self-efficacy among parents of children with autism receiving home-based A.B.A. treatment. Twenty-one mothers and eight fathers of children with autism receiving home-based A.B.A. treatment services from a southern California non-public agency participated in this project. Participating parents completed three questionnaires: a socio-demographic measure, the Self-Efficacy for Parenting Task Index - (SEPTI), and the Gilliam Autism Rating Scale, Second Edition. Correlation analyses indicated that as length of time in treatment increased so did the report of autism-related symptoms. In addition, parents' perceptions of child's challenging behaviors predicted parental self-efficacy, the more challenging behaviors were perceived by parents of children with autism the higher sense of self-efficacy parents reported. Furthermore, length of time in treatment did not predict parental self-efficacy. These project's findings suggest parental

self-efficacy may be influenced by external factors other than direct exposure to home-based A.B.A. treatment and future research in the area is needed. Implications for these research findings are discussed.

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This process has been a great learning experience for me. Every turn I have taken with this project, I have been faced with great challenges that have initially seemed impossible to overcome. But somehow, every time that I was faced with a great challenge someone with great insight was there to encourage, guide, support, and mentor me along the way. I am eternally thankful for every one of you who contributed to my journey.

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DEDICATION

This paper is dedicated to my mother, Odilia Ochoa. This is what you've produced, an actualized individual that sets goals and aims to accomplish them despite the challenges along the way. I dedicate this challenge and accomplishment to you for always emphasizing that everything is attainable as long as we stay focused and determined to achieve it. You have transcended your courage on to me and I will carry it with me everywhere I go. Thank you for showing me how to live my live a victorious life! Te amo!

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CHAPTER ONE

INTRODUCTION

Parenting is a rewarding but sometimes difficult journey in life. Parents have to be agile, warm, receptive, directive and effective- all while encountering a number of obstacles that seem hard to overcome. Identifying whether a behavior is intentional or not is an essential tool for parents to have, in order to utilize the appropriate parenting technique to effectively interact with and support their child. Parenting a child with autism poses unique challenges with respect to applying the "right" parenting techniques because of the child's behavioral impairments. These challenges often impact a parent's ability to maintain a positive sense of parental self-efficacy. Therefore, examining parents' self perceptions regarding their parental efficacy is critical for those raising a child with autism. Moreover, it is important to examine how home-based behavioral treatment may play a role in parents' self perceptions.

Theoretical Framework on Self-Efficacy

Bandura's notion of self-efficacy is the basis of much research that focuses on parental self-efficacy. Self-efficacy has been defined by Bandura (1982) as

perceived competency with regard to success or failure in a particular task. Thus, when there is perceived success, greater self-efficacy is experienced. On the other hand, perceived failure leads to lower self-efficacy. According to Bandura (1982) self-efficacy has been identified as having an influence on behavior and performance outcomes. Furthermore, Bandura and Wood (1989) suggested that self-efficacy is intertwined with environmental controllability; as people begin to experience beliefs of success in environments in which they perceive to be controllable, self-efficacy tends to be higher. On the other hand, experiencing beliefs of failure in environments in which they perceive to be uncontrollable tends to lower self-efficacy. Outcome expectations can be attributed to environmental controllability, while self-efficacy expectations can be attributed to one's perceived skills in a given situation (Bandura, 1982). In addition, Ozer and Bandura (1990) elaborated on the definition of self-efficacy, by stating that self-efficacy encompasses motivation, cognitive resources, and planning for the optimal path in order to exercise control over given situations. Coleman and Karraker (1997) emphasized that outcome expectation as well as self-efficacy expectations play a role in the parenting domain,

specifically for parents to feel efficacious they need to be aware of the appropriate child care response, feel confident in implementing the strategy related to the appropriate child care response, and belief that their child will respond appropriately.

Beyond the controllability variable, Bandura also suggests that four informational sources are instrumental in one's sense of self-efficacy (or personal efficacy) (1989). Informational sources include personal accomplishment history, vicarious experience, verbal persuasion (or feedback), and emotional arousal. Bandura proposed that self-efficacy is socially learned through the observation and experience of these four primary informational sources. Personal accomplishment history (success or failure) also referred to as direct mastery of experiences is identified as an individual's authentic experience of succeeding or failing in a particular situation. Direct mastery of experiences has the most powerful influence on expectations, due to the fact that one is realistically experiencing success or failure. Vicarious experience is the act of watching other similar individuals engage in particular activities and witnessing success or failure on their behalf. Vicarious experiences have an indirect influence on expectations since one is

observing someone else's experience of success or failure in a particular situation. Verbal feedback (or verbal persuasion) is receiving information from others regarding one's potential for accomplishment in a given area. This also serves as a path way to influence self-efficacy; for example, if a person receives verbal feedback that he/she is very likely to succeed then he/she will most likely have expectations of success. Finally, emotional arousal (or judgments of bodily states and various forms of somatic information) are the physiological changes (e.g., heart rate, breathing, and pulse) an individual experiences when expected to perform in a given situation. From a Bandurian perspective, lower levels of arousal are likely to be associated with success expectancies. The four informational sources along with contextual factors such as social, situational, and temporal circumstances impact perceived personal efficacy (Coleman, & Karraker, 1997).

According to a Bandurian theoretical model self-efficacy has been defined in the literature from three different perspectives; task-specific, domain-specific, and domain-general (Coleman & Karraker, 1997). Furthermore, a fourth perspective identified in the literature defines self-efficacy as general self-efficacy

(personality trait). Task-specific self-efficacy refers to a discrete task within a particular domain (e.g., play interactions with a toddler or using a time-out procedure for discipline with a toddler). Domain-specific self-efficacy refers to a combination of discrete tasks in a particular domain (e.g., a parent's ability to play with his/her children, parent's ability to discipline his/her children, and parent's ability to teach his/her children). Domain-general self-efficacy refers to global competencies not related to any task-specific domains (e.g., parent's overall perception on parenting, driver's overall perception on driving). General self-efficacy is refers as individual's history of achievements. Within these three perspectives identified in the literature, task-specific self-efficacy has been identified as the most predictive variable when compared to the other theoretical perspectives. Although, task-specific has been identified to be the most predictive variable when examining self-efficacy, Bandura as cited in (Coleman & Karraker, 1997) has indicated that the most applicable approach for determining self-efficacy should be by using a domain-specific approach by combining several distinct discrete tasks to a specific assessment. According to Coleman and Karraker (1997) there are very few assessment

tools in the parental self-efficacy literature that use a domain-specific approach, the only assessment tool that was found in the literature was Gelfand and Teti's (1991) Maternal Self-Efficacy Questionnaire. Future research on parental self-efficacy will need to focus on identifying and creating domain-specific self-efficacy questionnaires.

Theoretical Framework on Parental Self-Efficacy

Although there is an extensive literature based upon Bandura's theoretical model of self-efficacy, the notion of parental self-efficacy has received less empirical attention. According to Kuhn and Carter (2006), parental self-efficacy perceptions can be influenced by parenting cognitions which consist of a parent's beliefs, expectations, attitudes, and thoughts associated with parenting a child. Considering that parenting cognitions are established before a child is born, parents develop their working model of parenting cognitions through previous experiences and interactions with children (Kuhn & Carter, 2006). Although parenting cognitions are established before a child is born, parents continue to adjust their parenting cognitions as they begin to interact with the developing child. Gross, Rocissano, and Roncoli (1989) found that parents' prior child care

experience was a strong predictor of parental confidence in raising their own children during toddlerhood. Despite the minimal research attention devoted to this area, the idea of parental self-efficacy perceptions developing as a result of direct experiences is consistent with Bandura's (1989) notion of mastery by direct experience.

According to Coleman and Karraker's (1997) review of the literature, parental self-efficacy is believed to emerge from a variety of informational sources. Coleman and Karraker (1997) identified parents' prior child care experience with their own children, parents' actual experiences with parenting related to encounters with children of relatives and children of community members, elements of the macro-system, and attachment history as potential informational sources that influence the development of parental self-efficacy.

One avenue through which parental self-efficacy may emerge is the parent's prior child care experiences with their own children. According to Bandura (1989) having prior child care experiences gives an individual the opportunity to directly master the experience of parenting a child. Moreover, parental self-efficacy was identified as being influenced by an individual's actual experience of engaging with children of relatives and community

members. For example, by engaging with children of relatives and community members, individuals are given the opportunity to see other parents parent their children. In addition, elements of the macro-system such as one's culture and the community that one lives in were also identified as potential informational sources (Coleman & Karraker, 1997). According to Grusec, Hasting, and Mammone (1994) the community that one lives in seemed to have more of an influence on the development of parental self-efficacy than one's culture since parents most likely seek out factual information relevant to the care and development of children among individuals who have similar concerns. For example, parents of children with autism may seek out online chat rooms that are designed to provide information and support to parents of children with autism. Finally, attachment history is identified as another avenue through which parental self-efficacy may emerge. Ainsworth, Blehar, Waters, and Wall (1978) identified three different attachment styles (secure, avoidant, and resistant) that unfold as the quality of the primary caregiver-infant relationship is established. Attachment history is conceptualized to influence the development of parental self-efficacy by providing a working model for parents to draw from when establishing

their own relationship with their children. Although this notion of attachment history influencing the development of parental self-efficacy is limited in empirical support, Deutsche, Ruble, Fleming, Brooks-Gunn, and Stangor (1988) found pregnant women who reported positive relationships with their own mothers tended to report having adaptive parenting skills and expressing self-confidence in the outlook of becoming a mother.

The development of parental self-efficacy emerges in a very similar way when compared to the development of self-efficacy from a Bandurian perspective of direct, indirect, verbal, and emotional factors.

Parental Self-Efficacy

In general, parental self-efficacy has been sparsely investigated in the past three decades. The work that has been done has focused on identifying valid and conceptually clear measurements. Another focus of research has been dedicated to exploring the differences between mothers' self-efficacy and fathers' self-efficacy. Lastly, research on parental self-efficacy has been devoted to understanding parents' subjective experiences of parenting related to a child's challenging behaviors.

Measurements Issues

Currently, there have been only a few parenting self-efficacy questionnaires developed (e.g., Gibaud-Wallston & Wandersman, 1978; Teti & Gelfand, 1991; Coleman & Karraker, 2003). Among the parenting self-efficacy questionnaires that have been developed, generalizability across children's ages, internal validity, as well as, conceptually clear instruments have been areas of concern.

Johnston and Mash (1989) examined the psychometric qualities of the Parenting Sense of Competence Scale (PSOC) (developed by Gibaud-Wallston & Wandersman, 1978). The PSOC scale is composed of two dimensions (Efficacy and Satisfaction). The Efficacy dimension encompasses the degree to which parents feel competent, capable of problem solving, and familiarity with parenting in the parenting role. On the other hand, the Satisfaction dimension encompasses the degree to which parents feel frustrated, anxious, and poorly motivated in the parenting role. Johnston and Mash (1989) concluded that the PSOC scale was a useful measure of parenting self-esteem since it had a Cronbach's alpha score of .79 for the entire PSOC scale, as well as, acceptable alpha scores for the two factors of

the PSOC scale, .76 for the Efficacy dimension and .75 for the Satisfaction dimension.

Although, Johnston and Mash (1989) found statistically significant results for the PSOC scale and generalizablilty across ages, according to Teti and Gelfand (1991) Gibaud-Wallston and Wandersman's (1978) PSOC scale did not encompass a conceptually clear theoretical construct. Teti and Gelfand (1991) emphasized that Gibaud-Wallston and Wandersman's (1978) PSOC scale took a more global approach in illustrating parental self-efficacy. Therefore, Teti and Gelfand (1991) developed the Maternal Self-Efficacy Scale that incorporated Bandura's concept of self-efficacy based on a domain-specific approach.

Teti and Gelfand (1991) examined maternal self-efficacy beliefs as they related to the mother-infant relationship since at that time mother-infant relationships were scarcely investigated. In addition, Johnston and Mash (1989) had suggested that mothers typically assume the role of primary care-giver in the first phases of a child's development and suggested that mothers might hold more positive view of parenting efficacy than fathers. Therefore, Teti and Gelfand (1991) examined parental self-efficacy among mothers using a

domain-specific approach. They found the Maternal Self-Efficacy Scale to have satisfactory internal consistency with a Cronbach's alpha of .79 based on a pilot sample of 29 mothers and a Cronbach's alpha of .86 based on a sample of 86 mothers. Even though Teti and Gelfand's (1991) Maternal Self-Efficacy Scale has demonstrated validity and a conceptually clear theoretical construct, their scale is limited to measuring self-efficacy among mothers of infants.

Subsequently, Coleman (1998) developed a parenting self-efficacy measure, The Self-Efficacy for Parenting Task Index - Toddler Scale (SEPTI - TS) that also incorporated Bandura's domain-specific approach. However, Coleman (1998) was determined to create a scale that could encompass parental self-efficacy beyond infancy and address more aspects of Bandura's self-efficacy theory. In particular, Coleman (1998) sought to incorporate both domain-specific and domain-general approaches in a parenting self-efficacy scale in order to explore possible differences in the two measurement strategies, since previous research had solely focused on domain-specific (Teti & Gelfand, 1991) or domain general (Gibaud-Wallston & Wandersman, 1978) theoretical approaches. In her scale, Coleman (1998) wanted to explore how self-efficacy beliefs

would facilitate the acquisition of new skills in the parenting role as well as the salience of self-efficacy beliefs in stressful circumstances. According to Coleman (1998) parents encounter both the need for acquiring new skills and stressful circumstances during toddlerhood. Toddlers seek out autonomy from their primary caregiver by testing their limits and exploring their environment (Coleman, 1998). This phase of autonomy challenges parents and prompts parents to acquire new skills during these sometimes stressful circumstances.

Coleman (1998) found that domain-general self-efficacy beliefs were not significantly associated with any of the child variables; however, Coleman (1998) found that domain-specific self-efficacy beliefs were significantly associated with six of the eight child variables. These findings are consistent with Bandura's (1989) theory of self-efficacy which emphasizes that domain-specific measures of self-efficacy, when compared to global measurements, are likely to be more significant in terms of predicting actual behavior.

Given the literature that has been reviewed on parental self-efficacy measurements, domain-specific measurements have been found to be more predictive of actual behaviors than domain-general self-efficacy

measurements. These findings further support Bandura's notion that domain-specific approaches are the most valid approach for determining self-efficacy (as cited in Coleman and Karracher, 1997). Although, there have been some advancements in creating a parenting self-efficacy scale incorporating Bandurian's theoretical perspective on self-efficacy, researchers continue to encourage the development of more clearly conceptually defined instruments.

Mothers and Fathers

Literature on parental self-efficacy originally focused on establishing mothers' and fathers' perceptions of parental self-efficacy. Not surprisingly, some of these studies revealed differences between mothers' and fathers' self-efficacy beliefs. In 1983, Mash and Johnston were interested in parental perceptions of child behavior, parenting self-esteem, and reported stress among parents of younger and older hyperactive and typically developing children. Mash and Johnston (1983) had mothers and fathers complete a checklist concerning child behavior and parenting self-esteem questionnaires; however, they only had mothers fill-out the stress questionnaire due to practical limitations. They found that parents of hyperactive children who reported higher levels of

behavioral problems on the Child Behavioral Checklist (CBCL) tended to report lower levels of self-esteem compared to parents of typically developing children. Differences between mothers and fathers were also found. The relationship between parental self-esteem and perceived child problems was stronger for mothers than fathers. Mash and Johnston's (1983) findings were consistent with previous research which indicated that although both mothers and fathers of children with hyperactivity reported lower levels of self-efficacy compared to parents of typically developing children, fathers of children with hyperactivity tended to perceive the child's problems as less severe than mothers (Goyette, Conners, & Ulrich, 1978). Mash and Johnston's (1983) findings illustrated subtle differences between mothers' and fathers' self-efficacy beliefs.

Similarly, Johnston and Mash (1989) reported that fathers' perceptions of parenting efficacy differed from mothers' perceptions of parenting efficacy. Johnston and Mash (1989) replicated Gibaud-Wallston and Wandersman's (1978) study and found inconsistent results related to mothers' and fathers' scores on the two dimensions (Efficacy and Satisfaction) of the PSOC scale. Initially, Gibaud-Wallston and Wandersman (1978) found that mothers

of infants obtained higher Efficacy scores than fathers on the PSOC scale and that fathers of infants obtained higher Satisfaction scores than mothers on the PSOC scale. However, Johnston and Mash (1989) revealed that there were no differences between mothers and fathers scores on the Efficacy dimension on the PSOC scale. However, on the Satisfaction dimension, Johnston and Mash (1989) reported results consistent with Gibaud-Wallston and Wandersman (1978) findings. Johnston and Mash (1989) found that fathers obtained higher Satisfaction scores than mothers on the PSOC scale. Johnston and Mash (1989) suggested that future research would be needed to replicate the difference found between mothers and fathers in this study.

According to Johnston and Mash (1989) their findings might have differed from Gibaud-Wallston and Wandersman's (1978) findings because Johnston and Mash (1989) used parents of older children. Additionally, it was suggested by Johnston and Mash (1989) that mothers of infants normally take on more of the care-giving responsibilities in the beginning of an infant's life than do fathers, therefore mothers of infants may have higher scores of efficacy than fathers. Nevertheless, as children age, mothers and fathers begin to share more of the care-giving

responsibilities and hence that is why Johnston and Mash (1989) did not find a difference between mothers and fathers on the Efficacy dimension of the PSOC scale.

Moreover, Goldberg, Marcovitch, MacGregor, and Lojkasek (1986) reported maternal and paternal differences. According to Goldberg, Marchovitch, MacGregor, and Lojkasek (1986) fathers reported differently than mothers on distress symptoms, self-esteem, internal locus of control, and support. In particular, fathers reported higher self-esteem than mothers. Goldberg, Marcovitch, MacGregor, and Lojkasek (1986) suggest that these differences may be based on role divisions in the family and their findings indicate a need to understand individual differences between mothers and fathers.

In conclusion, there has been limited empirical work focusing on the differences between fathers' and mothers' reports of parental self-efficacy. The existing research also suggests that fathers' and mothers' parental self-efficacy maybe influenced by different variables. Thus, further research is needed to fully understand father and mother differences with respect to parental self-efficacy.

Challenging Behaviors

The existing literature on parental self-efficacy has been devoted to understanding parents' subjective experiences of parenting. In particular, work has focused on whether subjective experiences are associated with parents' successful adjustment to parenting and how subjective experiences may be related to positive parenting practices (Coleman & Karraker, 2003). Children with challenging behaviors impact both successful adjustment and positive parenting practices.

According to Grusec, Hastings, and Mammone (1994) parents who have lower levels of parental self-efficacy have a difficult time showing persistence in parenting. This notion that parents with low levels of parental self-efficacy tend to give up too easily when situations become challenging while parents with high levels of parental self-efficacy tend to continue striving to succeed when situations become challenging, coincides with Bandura's (1982) conceptualization of self-efficacy beliefs. Similarly, Teti and Gelfand (1991) found that mothers who perceived their infants as difficult but who had strong maternal self-efficacy beliefs may be more likely to seek out social resources in order to establish better relationships with their infants. On the other

hand, mothers who perceived their infants as difficult but had weaker maternal self-efficacy beliefs appear to be less likely to seek social resources in order to establish better relationships with their infants.

According to Bandura's (1982) conceptualization of self-efficacy, inefficacious parents tend to feel overly burdened by their parental duties, frequently becoming immobilized by the emotional and physical tasks involved (Coleman & Karraker, 2003). Parents of children with challenging behaviors, in particular, parents of children with autism are faced with these unique difficulties in parenting. Finally, research has demonstrated that parents of children with challenging behaviors report lower levels of parental self-efficacy compared to parents of typically developing children (Mash & Johnston 1983).

Parental Self-Efficacy Among Parents of Children with Autism

Similarly, to the phases Coleman and Karraker (1997) addressed related to parents feeling efficacious, parents of children with autism face similar phases related to feeling efficacious in their parenting role by being able to identify the function of their child's behaviors (e.g., attention, tangible, escape/avoidance, or sensory), feeling confident in implementing the appropriate

strategies (e.g., redirect, deny access, ignore, or replace), and believing that their child will respond appropriately. To date, there is limited empirical work that focuses specifically on parental self-efficacy among caregivers raising children with autism. The parents of children with autism face constant behavioral challenges and are constantly being put to the test to implement the appropriate strategies to decrease the likelihood of those challenging behaviors from occurring again. The work that has been done has emphasized the need for developing conceptually clear measurements. Another focus of research is on exploring the differences between mothers' and fathers' self-efficacy.

Measurement Issues

In past research, there has been a reliance on using pre-existing parental self-efficacy measures that were developed for parents of typically developing children (e.g., Kuhn & Carter, 2006); few researchers have developed questionnaires that address parental self-efficacy among parents of atypically developing children (e.g., parents of children with autism). Hasting and Brown's (2002) three part scale is an example of a measure designed specifically for parents of children with autism. Their domain-specific measure was rated on a

7-point scale with the total score derived by summing the ratings on the five items. Hasting and Brown's (2002) domain-specific measure revealed consistent internal reliability with alpha coefficients of .94 for mothers and .92 for fathers. Beyond Hasting and Brown's work, there is no other scale development work that has focused specifically on parents of children with autism.

Mothers and Fathers of Children with Autism

With respect to differences among mothers and fathers, Hasting and Brown (2002) reported that parental self-efficacy operated differently among these parental units. Specifically, parental self-efficacy was a significant mediator between children's problem behavior and mental health outcomes for mothers, but not for fathers. These findings provide some initial evidence that there are differences among mothers and fathers of children with autism.

Hasting and Brown's (2002) findings were fundamental to the literature on parental self-efficacy among parents of children with autism because they identified the importance that self-efficacy plays in understanding the relationship between child behavior problems and parents' mental heath outcomes. More importantly, they found that there were maternal and paternal differences.

Applied Behavioral Analysis

Baer, Wolf, and Risley (1968) defined Applied Behavioral Analysis (A.B.A.) as the use of information acquired through the science of observable behavior analysis to facilitate the improvement of behaviors that are socially important. The application of A.B.A. is used in many different domains such as community development, social work, nursing, industry, education, and medicine. Furthermore, A.B.A. has been employed successfully among children with autism over the past three decades (Matson, Benavidez, Compton, Paclawskyj, & Baglio, 1996).

Applied Behavioral Analysis among Children with Autism

The implementation of intensive A.B.A. treatment among preschoolers has demonstrated compelling treatment outcomes for children with autism (e.g., Anderson, Avery, DiPietro, Edward, & Christian, 1987; Fenske, Zalenski, Krantz, & McClannahan, 1985; Lovaas, 1987). In particular, positive treatment outcomes are most likely when treatment is intensive, begins early (before the age of four years) and lasts at least two years. Although there is variability in research findings, there is evidence that just under half of the children receiving 40 hours per week of 1:1 instruction achieved essentially normal

educational and intellectual functioning (Lovaas, 1987; McEachin, Smith, & Lovaas, 1993); less dramatic improvements have been documented with less intensive (i.e., 20-25 hours per week) intervention (Andersen et al., 1987). These outcomes were found in both home programs (Lovaas, 1987, McEachin et al., 1993) and center-based programs (Andersen et al., 1987).

Following the initial reports of the success of A.B.A. intervention in home-based programs, another model of service delivery emerged in which intensive A.B.A. was provided in home settings with programs implemented by the child's PARENTS. In a typical home-based model, services were coordinated and supervised by A.B.A. professionals who, in addition to directing programming, hired staff and managed data. However, in an alternate home-based model, parents play a much more central coordination role; they hire staff, manage data, and assist in programming decisions with consultation from A.B.A. professionals.

Refreshingly, approximately two decades later there is still evidence that supports the significance of home-based A.B.A. treatment. In 2006, Weiss and Rutger found very similar findings to those of previous research, indicating home-based A.B.A. treatment is a pathway to positive treatment outcomes among children with autism.

Parents' Perception of Applied Behavioral Analysis Treatment Outcome

In 2004, Dillenburger, Keenan, Gallagher, and McElhinney conducted a study on parents' perceptions of outcomes following an intensive home-based Applied Behavioral Analysis intervention. They were interested in whether there were differences in parent perceptions between long-term participants and short-term participants. The long-term group was categorized by being involved in A.B.A. treatment for the past two years and the short-term group was categorized by being involved in A.B.A. treatment for less than six months. They found that both groups of parents demonstrated gains in confidence and empowerment. These parents also reported A.B.A. treatment as being helpful in facilitating development of their children.

During this program, the parents were able to tailor their children's A.B.A. treatment program to their needs. This addressed a concern associated with A.B.A. because it has been criticized for having a cookbook recipe approach that typically is not appealing to parents. Because an effort was made to provide unique accommodations for each participating family, those parents who participated in the treatment program expressed satisfaction with their

child's program and outcome (Dillenburger, Keenan, Gallagher, & McElhinney, 2004).

In general, home-based A.B.A. treatment interventions consist of a therapist that provides direct 1:1 intervention, a supervisor that supports the program and a clinical manager that further supports the intervention. The main role of a therapist is to reduce maladaptive behaviors while increasing communication and social skills. Currently, home-based A.B.A. programs that are funded by California's regional centers require parent participation in the therapeutic process. Parents are expected to participate and implement specific behavioral protocols relevant to their child's needs in order to decrease maladaptive behaviors while increasing communication and social skills. Parents' participation in the home-based A.B.A. program is very valuable and important for generalization, as well as, consistency with behavioral protocols.

In the process of receiving home-based A.B.A. services parents have to be able to identify the function of their child's challenging behaviors and utilize appropriate behavioral protocols in order to decrease their child's challenging behaviors and increase the desired appropriate behavior. Parents of children with

autism are exposed to different domains of parenting when implementing home-based A.B.A. treatment; particularly parents implement behavioral, communication, and social protocols. In addition to identifying appropriate replacement behaviors parents are faced with their own perception of success or failure in the particular domains associated to raising a child with Autism. According to Coleman and Karraker (1997) these perceptions can be influenced by their prior child care experience which can interfere with their perceived outcome.

Literature related to parental self-efficacy among parents of children with autism has mainly focused on one-time samples of parents' of children with autism (Hasting & Brown, 2002), and parents' in the therapeutic role with their child (Hasting & Symes, 2002). Literature related to autism primarily focuses on child's outcome prognosis, limited research address parental self-efficacy, and specifically parental self-efficacy over time.

According to Coleman and Karraker (1997) current research should focus on the extent that parental self-efficacy is impacted by participation in an intervention program. It is assumed that as parents of children with autism take an active role in their child's

development that it will be possible for them to identify strategies to effectively interact with their children. This is expected to increase and promote adaptive functions in their child (McConachi & Diggle, 2006). Furthermore, parents may perceive greater parental self-efficacy (Kuhn & Carter, 2006).

Purpose of the Study

As noted by Bandura (1997), personal fulfillment and satisfaction are most likely to be achieved through engagement in challenging activities that individuals feel competent in pursuing. When parents of children with autism participate in home-based applied behavioral analysis, they have the opportunity to experience success directly. Previous literature has emphasized the value parental self-efficacy has on parents' persistence in given situations. Self-efficacious individuals strive to succeed in challenging situations whereas self-inefficacious individuals tend to give up too soon (Teti & Gelfand, 1991).

This study is concerned with exploring parental self-efficacy among parents of children with autism. In particular, the relationship between length of home-based A.B.A. treatment and parental self-efficacy will be

explored. Further, the potential relation between parents' perception of child's challenging behaviors and parental self-efficacy will be explored.

A sequential multiple regression analyses approach would ideally illustrate the significant relations between the variables of interest, however due to the limited participants in this project bivariate Pearson correlations were conducted among the variables of interest.

The following questions were examined in this project:

1.) Is there a significant relation between parents' perception of child's challenging behaviors and length of home-based A.B.A. treatment among mothers and fathers?

2.) Is the length of home-based A.B.A. treatment significantly correlated with parental self-efficacy for mothers and fathers?

3.) Is the perception of a child's challenging behavior significantly correlated with parental self-efficacy among mothers and fathers?

4.) Are demographic variables (i.e., number of children in family, number of children with developmental disabilities) significantly

correlated with parental self-efficacy among mothers and fathers?

CHAPTER TWO

METHODS

Participants

Twenty-one mothers and eight fathers of children with autism receiving home-based A.B.A. treatment services from a southern California non-public agency participated in this project. Parents were eligible to participate in this project if they had a child with an autism diagnosis and were currently receiving home-based A.B.A. treatment services for their children. Home-based A.B.A. treatment services varied from participant to participant; however, the general A.B.A. treatment model was consistent across participants. All participants were receiving intensive one-to-one home-based behavioral intervention therapy for their child which consisted of a combination of treatment models (e.g., Pivotal Response Training, Discrete Trial Training, and Positive Behavior Strategies) as well as, parent education. Families who participated in this project were initially referred to this southern California non-public agency which provides home-based A.B.A. treatment services to children with autism and related disorders through their local California State

Regional Center. The regional center provides funding for the home-based A.B.A. treatment services.

Participants' demographic information is as follows: Parents' age ranged from 29 to 54, with a mean age of 42; there were three participants who failed to enter their age on the socio-demographic information questionnaire. All the parents who participated in this project were the biological parents of the children with autism diagnosis, 75% (21) of the participants where mothers and 25% (8) of the participants where fathers. Participants' ethnicities were as followed: 62.1% Caucasian, 17.2% Latino, 10.3% other, 6.9% Asian, and 3.4% African American; there was one participant who failed to enter their ethnicity. The majority of the participants in this project were married (82.1%), a few were divorced (10.7%) and one was single (3.6%) and one was widowed (3.6%). Additionally, the majority of the participants in this project had a bachelor's degree of education or higher (58.6%), 10.3% had an associate's degree, 24.1% had some level of college education, and 6.9% only had a high school degree. Fifty percent of the participants in this project had an annual income of more than $75,000 a year, 21.4% of the participants had an annual income between 60,000 and 74,999 dollars, 7.1% of the participants had an annual

income between 45,000 and 59,999 dollars, 10.7% of the participants had an annual income between 30,000 and 44,999 dollars, and 10.7% of the participants had an annual income between 15,000 and 29,999 dollars. The number of children in the family ranged from one to five with a mean of two children per family. Furthermore, parents reported on their level of participation in their child's home-based A.B.A. treatment, 53.3% of parents reported that they participated more than 50% of the time in their child's home-based A.B.A. treatment; the remaining parents reported that they participated less than 50% of the time of their child's home-based A.B.A. treatment.

Furthermore, six of the 29 participants were three married couples (mothers and fathers) with a child with autism. Within these couples, each mother and father filled out the SEP-TI and the GARS-2 related to their child with autism. One couple had a five-year-old boy, a second couple had an eight- year-old boy, and the last couple was the parents of a 16-year-old boy.

Additionally, parents were asked to fill out demographic information regarding their child with autism. Parents reported on the age of the child with an autism diagnosis; their children's ages ranged from three to

sixteen, with a mean age of six years, five months. There were 22 boys (76%) with an autism diagnosis, 1 boy (3%) with autism and ADHD diagnosis, 1 boy (3%) with Pervasive Developmental Disorder - NOS, 4 girls (14%) with an autism diagnosis, and 1 girl (3%) with a blank diagnosis. In addition, parents reported on the length of time their child with an autism diagnosis had been receiving home-based A.B.A. treatment see Table 1. See Appendix A.

In general there were very few participants in this current project. The majority of the participants in this project had relatively higher educational backgrounds, lived in a two-parent house holds, and earned more than 75,000 dollars a year. Recruiting participants for this current project was rather challenging. Many parents reported that they did not have time to fill-out a 15 minute questionnaire. As a result, multiple approaches for recruiting participants had to be used: from supervisors giving parents self-addressed and stamped envelopes with the questionnaires inside for them to fill-out, to attending a socialization Fall Festival event and personally explaining the purpose of the study and personally handing parents self-addressed and stamped envelopes with the questionnaires inside for them to fill-out. Due to the limited participants in this current

project the ideal statistical analyses could not be conducted.

Measures

Socio-Demographic Information

Parents were be asked to complete a socio-demographic questionnaire about themselves which asked for information on: age, gender, race/ethnicity, marital status, level of education, average annual family income, number of children in the family, and percentage of participation in home-based A.B.A. treatment.

The Self-Efficacy for Parenting Task Index - (SEPTI) Questionnaire

This 53-item scale was developed by Coleman (1998) to provide a comprehensive index of domain-specific parenting self-efficacy for use with parents of toddlers. The measure was modified for the current project by replacing references to "toddler" with "child". According to Coleman (1998) this is the only existing instrument available in the literature that assess domain-specific parental self-efficacy among parents of children beyond infancy, utilizing a multi-dimensional approach as recommended by Bandura. The questionnaire in its original form consists of seven subscales and is designed to assess parents'

sense of competence pertaining to the following discrete sub-domains of parenting:

a.) emotional availability

b.) nurturance and responsiveness

c.) protection from harm or injury

d.) discipline and limit settings

e.) play

f.) teaching

g.) instrumental care and establishment of structure and routines

The items are rated on a 6-point Likert scale with possible responses ranging form "Strongly disagree (1)" to Strongly Agree (6)" (Coleman, 1998). The total score on the scale can range from 53-318, higher scores on both the subscales and for the total score are indicative of higher self-efficacy. The original scale has reported alpha coefficient of .91. Because the measure was slightly modified for this project, internal consistency was re-calculated. An alpha coefficient of .92 was found for the revised measure. See Appendix 2.

Gilliam Autism Rating Scale, Second Edition (GARS-2; Gilliam, 2005)

The GARS-2 is an objective measure of symptoms associated with autism. It is based upon DSM-IV-TR

diagnostic criteria, and the definition of autism proposed by the Autism Society of America (American Psychiatric Association, 2000; Autism Society of America, 2008). The GARS-2 must be completed by someone who knows the individual well; thus, appropriate persons who may complete the GARS-2 include classroom teachers, parents, or other caregivers who have had regular, sustained contact with the individual for at least 2 weeks. This instrument is intended to be used with individuals ages 3 years-old through 22 years-old. The GARS-2 consists of 42 items divided into three 14-item subscales: Stereotyped Behaviors, Communication, and Social Interaction. These subscales are rated on a four-point Likert scale ranging from *Never Observed (0), Seldom Observed (1), Sometimes Observed (2) to Frequently Observed (3)*. The GARS-2 has consistent internal reliability with alpha coefficients of .84 for Stereotyped Behaviors, .86 for Communication, and .88 for Social Interaction.

Procedures

After CSUSB Institutional Review Board (I.R.B.) approval, the researcher contacted the director of the southern California non-public agency that provides home-based A.B.A. treatment services to coordinate

implementation of the project. The scope and purpose of the project was presented to supervisors at the agency. Any questions were also addressed before contacting potential participants for this project. Supervisors received flyers detailing the project and were asked to disperse them among parents of children with autism to solicit participants for the project. Participating parents were given a self-addressed stamped envelope consisting of the three questionnaires: the socio-demographic measure, Self-Efficacy for Parenting Task Index - (SEPTI), and the Gilliam Autism Rating Scale, Second Edition. The entire survey took approximately 15-20 minutes to complete. Participants returned their completed questionnaires in the self addressed stamped envelops to the office of the non-public agency.

In addition participants were also solicited at a Fall Festival sponsored by the non-public agency. The southern California non-public agency invited all the families that they provide services to join the fun of face painting, outdoor games, and socializing. The Fall Festival was held on a Friday afternoon at a local park. The festival was established to accommodate for scheduling conflicts. All participants who returned the

questionnaires were entered into a raffle to receive one of the four $10.00 Starbuck gift cards.

CHAPTER THREE

RESULTS

Table 1 contains descriptive statistics for the length of time in home-based A.B.A. treatment, the total SEP-TI as well as, the total score on the Gilliam Autism Index and its three subscales (stereotyped behaviors, communication, and social interaction). As can be seen in the table, length of time in home-based A.B.A. treatment was quite variable as it ranged from two months to nine years, three months. It can also be noted that parents self-efficacy (SEP-TI, Total) was quite variable; the average self-efficacy score was 119.38 with a range of 78-172 compared to the potential range of 53-318 as identified by Coleman (1998). With respect to parent-reported Autism behaviors (symptoms) the average Autism Index score (95.29) exceeded the clinical significance threshold of 85 (Gilliam, 2006). Thus, the parents in this project reported notable autistic symptoms with their children.

Table 1. Descriptive Statistics: Length of Time in Home-Based Applied Behavioral Analysis Treatment, SEP-TI, GARS-2 (n = 28)

Measures	*M*	*SD*	*Range*
Length of time in A.B.A. treatment (months)	34.45	30.32	2-112
SEP-TI TOTAL	119.38	27.29	78-172
Gilliam Autism Rating Scale, Autism Index	95.29	15.27	64-117
GARS-2 (stereotyped behaviors)	8.75	2.61	4-13
GARS-2 (communication)	10.43	3.17	5-15
GARS-2 (social interaction)	8.64	2.11	4-12

In order to address this project's research questions, correlational analyses were utilized. Correlations among length of time in home-based A.B.A. treatment, parents' self-efficacy (total SEP-TI), and parents' perceptions of challenging behaviors (Autism Index on the GARS-2) are reported in Table 2.

Table 2. Bivariate Correlations for Length of Time in Home-Based Applied Behavioral Analysis Treatment, Parental Self-Efficacy (SEP-TI), and Parents' Perception of Challenging Behaviors (Autism Index, GARS-2) Variables (n = 28)

Measures	1	2	3
1. Length of time in A.B.A. treatment (months)	--	-.070	.374*
2. The Self-Efficacy for Parenting Task Index		--	.529**
3. Gilliam Autism Rating Scale, Autism Index			--

*$p < .05$. **$p < .01$.

Research Question 1

Research question 1 stated that there would be a significant correlation between parents' perception of child's challenging behaviors and length of time in home-based A.B.A. treatment. A bivariate Pearson Correlation was conducted to examine the relation between these variables. There was a moderate positive relation between parents' perception of child's challenging behaviors and length of time in home-based A.B.A. treatment $r = .37$, $p < .05$. Thus, as challenging behaviors increased so did length of time in treatment.

Research Question 2

The second research questions stated that length of time in home-based A.B.A. treatment would significantly correlated with parental self-efficacy. A bivariate Pearson Correlation revealed that length of time in treatment was not significantly related to parental self-efficacy $r = -.07$, $p > .05$. These findings imply that parental self-efficacy is not related to the length of time their child has been receiving home-based A.B.A. treatment.

Research Question 3

The third research question stated that parents' perceptions of their child's challenging behaviors would be significantly correlated with parental self-efficacy. The analysis revealed parents' perception of their child's challenging behaviors to be significantly correlated to parental self-efficacy $r = .53$, $p < .005$. These findings suggest that parental self-perceptions are influenced by parents' perception of their child's challenging behaviors. That is, the degree to which parents perceive the presence of challenging behaviors in their children impacts their own self-efficacy.

Research Question 4

Lastly, research question 4 stated that demographic variables (i.e., number of children in family, and number of children with developmental disabilities) would be significantly correlated with parental self-efficacy. A Spearman's rho was conducted to determine if there was a significant relation between number of children in a family and parental self-efficacy (total SEP-TI). The results revealed a non-significant relation (Spearman's rho = .04, p = .83). No further analyses were conducted utilizing number of children with developmental disabilities because there were so few families which had multiple children with disabilities. In fact only three of the 28 families reported having more than one child with a disability.

Qualitative Description of Three Married Couples

Furthermore, additional descriptive statistics information is provided regarding the three married couples can be found in Table 3. This descriptive information is not based on any statistical analyses, the information presented in Table 3 only reflect the description of the 3 married couples. As can be seen, the mother of the five-year-old boy reported fewer Autism

symptoms (Autism Index = 89) than did the father (Autism Index = 117). In addition, the mother of the five-year-old boy reported lower self-efficacy (Total SEP-TI, 125) compared to her husband (Total SEP-TI, 151).

Table 3. Descriptive Statistic of Three Married Couples (Mothers and Fathers) of Parents of a Child with Autism

Child's Age	*Mother*	*Father*
Five-year-old boy		
SEP-TI TOTAL	125	151
GARS-2 (Autism Index)	89	117
Eight-year-old boy		
SEP-TI TOTAL	170	155
GARS-2 (Autism Index)	111	106
Sixteen-year-old boy		
SEP-TI TOTAL	102	147
GARS-2 (Autism Index)	115	106

Interestingly, the father of this five-year-old boy reported greater Autism symptoms, as well as, higher self-efficacy. On the other hand, the mother of the eight-year-old boy reported higher Autism symptoms (Autism Index, 111) than her husband (Autism Index, 106) as well as higher self-efficacy (Total SEPTI, 170) than her husband (Total SEPTI, 155). Lastly, the mother of the

16-year-old teenager reported more Autism symptoms (Autism Index, 115) compared to her husband (Autism Index, 106) however; less self-efficacy (Total SEPTI, 102) compared to her husband (Total SEPTI, 147). These findings suggest that parental self-efficacy among mother and fathers of children with autism is highly variable.

CHAPTER FOUR

DISCUSSION

Research on parental self-efficacy has mainly focused on identifying valid instruments to examine the construct, as well as, exploring differences among mothers' and fathers' self-efficacy. The current project encompassed these facets of research within the context of parents raising children with autism. Additionally, this exploratory project has identified meaningful directions for future research with respect to parental self-efficacy among parents of children with autism.

The current project explored a number of research questions. First, the relations among length of time in home-based A.B.A. treatment, the child's challenging behaviors, parental self-efficacy, and number of children in a household with a child with autism were examined. Parents' perception of challenging behaviors was positively correlated with length of time in home-based A.B.A. treatment. However, length of time in home-based A.B.A. treatment did not correlate with parental self-efficacy. On the other hand, parents' perceptions of challenging behaviors did correlate with parental self-efficacy. Lastly, the number of children in a

household with a child with autism was not-significantly related to parental self-efficacy.

Research Question 1

With respect to the relation between parents' perception of challenging behaviors and length of time in home-based A.B.A. treatment, the results revealed that the more challenging behaviors parents' perceived the longer their child had been receiving treatment for. These findings may be explained in a number of ways. First, the actual severity of the child's challenging behaviors may have played a role; that is, the more severe the behavior, the longer treatment needs to be. This sample may have included children with more severe concerns, thus, the positive correlation between length of treatment and perception of challenging behaviors. Second, according to Hasting and Brown (2002) parents of children with autism may have altered perspectives of their child's challenging behaviors and may be predisposed to report more challenging behaviors. Finally, length of time in treatment can potentially be influenced by parents who advocate for their child's services; parents who strongly advocate may perceive their child's behaviors as considerably more challenging. Any of these three reasons

may explain the positive relation. However, the positive relation should not be interpreted as indicating treatment does not work.

Research Question 2

Although the relation between length of time in home-based A.B.A. treatment and child's challenging behavior was significantly positively correlated, the relation between length of time in home-based A.B.A. treatment and parental self-efficacy was not significant. Length of time in home-based A.B.A. treatment was not related to parental self-efficacy; these findings imply that parental self-efficacy among parents of children with autism is influenced by other factors other than length of time in home-based A.B.A. treatment.

A number of possibilities may explain this non-significant finding. First, parental self-efficacy can be influenced by a variety of external variables (e.g., stress and depression) besides length of time in treatment. Guimond, Wilcox, and Lamorey (2008) emphasized the relation between parental self-efficacy, stress, and depression. According to Guidmond, Wilcox, and Lamorey (2008) lower levels of parental self-efficacy have been related to stress and depression. Specifically, they

reported that parents of children with disabilities are predisposed to depression and experiences stressors associated to raising their child with challenging behaviors. However, in this project, parental stress and depression were not directly examined therefore it was not possible to identify the potential impact such variables had on parental self-efficacy. Second, parents' participation in home-base A.B.A. treatment varied among participants in this study; thus, across the sample the impact of length of treatment may have been masked.

Research Question 3

Parents' perceptions of challenging behaviors were significantly related to parental self-efficacy. These results indicate that parents who perceived greater challenging behaviors in their child also reported greater self-efficacy. These findings may be explained by the notion that parents of children with more behavioral challenges are encouraged to successfully address their child's behavioral challenges more consistently through the application the methodology that is recommended to them by their home-based A.B.A. supervisor. Furthermore, this finding might be explained by the notion that parents who perceive greater challenging behaviors get more

assistance to deal with their child's challenging behaviors, thus they feel more efficacious in their parenting role. In addition, parents who face more challenging behaviors may also seek out additional support as well as educating themselves about specific techniques to further support their children. Teti and Gelfand (1991) reported that parents who reported higher self-efficacy and perceived their infants as more difficult were also more likely to seek out social resources in order to establish better relationships with their infants. Finally, parents of children with more challenging behaviors who also reported higher self-efficacy may be resilient to the specific stressors associated to raising their child with challenging behaviors.

Research Question 4

Lastly, the relation between number of children in a family and parental self-efficacy was explored. There was not a significant relation between these two variables. There is limited literature addressing how the number of children in a family may be associated with parental self-efficacy. The only literature that addressed parental self-efficacy within the larger family context was reported by Meirsschaut, Roeyers, and Warreyn (2010).

Their main focus was on exploring parental self-efficacy among parents of typically developing children who had a sibling with autism. Meirsschaut, Royers, and Warreyn (2010) found that parents reported higher self-efficacy related to parenting their typically developing child than parenting their child with autism. The families who participated in Meirsschaut, Royers, and Warreyn (2010) study consisted of one typically developing child and one child with autism. Their findings did not address the impact of having more than one child with a developmental disability, and how that may impact parental self-efficacy. In the end, Meirsschaut, Roeyers, and Warreyn (2010) suggest much more work needs to be done which specifically examines parental self-efficacy within a family context that includes both typically and atypically developing children.

Limitations

Even though this study revealed interesting information about parental self-efficacy there were several limitations associated with this project. A major limitation to this project was that not all the parents who participated in this project were exposed to the same A.B.A. intervention approach (methodologies). There was

not a specific intervention approach targeted in this project; the participants in this project were exposed to a general A.B.A. treatment approach that functions as an umbrella for a variety of different intervention methodologies (e.g., Pivotal Response Training, Discrete Trail Training, and Positive Behavior Strategies). Even within intervention models that use detailed curriculum guidelines (e.g., behavioral protocols) they face the challenge of delivering a consistent treatment intervention model (Dillengburger, 2004). Controlling for a consistent treatment intervention model is a universal limitation in research conducted in home settings (Hasting & Symes, 2002).

Another limitation to this project was that the majority of the participants in this project indicated high socio-economic status, considerable education, and lived in two-parent households. The participants in this project do not accurately represent the population of parents of children with autism. A larger and more diverse sample would have likely yielded more generalizable results.

Future Research Direction

Future research should focus on examining parental self-efficacy among parents of children with autism through a more clearly defined A.B.A. treatment approach as well as a specific length of treatment in order to make comparisons easier. Further researcher should also examine parental self-efficacy among parents from differ socio-economic, educational, and household demographics. In addition, future studies should look at the number of children with and without autism in a household to see what implications raising a child with autism may bring to a family with typically developing children. It has been reported that typically developing siblings of children with autism face unique challenges. Some of the challenges associated with being a typically developing sibling of a child with autism include: receiving less parental attention, less "normal" family outings, embarrassment, and limited sibling companionship as reported in Meirsschaut, Roeyers, and Warreyn's (2010).

Future research should also focus on examining parental stress levels before and after treatment to see if stress level also influences parental self-efficacy (Hasting & Brown, 2002). In addition, it will be useful to compare parental self-efficacy of parents of children with

autism to parents of typically developing children to further understand parental self-efficacy among parents of children with autism. Future clinical implementation should consider using parental self-efficacy questionnaires before starting a new A.B.A. approach and provide follow-ups on parental self-efficacy the same way that child progress is documented typically on a biannual cycle. In addition, future research should continue examining parental self-efficacy among mothers and fathers in order to have a better understanding of mothers' and fathers' parental self-efficacy. Examining parental self-efficacy through a domain-specific approach should help provide additional information regarding parents' perceived success or failure within an A.B.A. treatment approach and lead to better parent training programs.

Conclusion

In general, parenting a child with autism requires parents to be consistent across settings, reinforce skills that their child has learned in therapy, and continue targeting these skills across settings in order to increase generalization. Applying A.B.A. principles outside of therapy is a constant challenge parents are faced with. A.B.A. principles can be rather challenging in

the sense that parents have to be aware of the function of behavior their child has engaged in and be able to identify the appropriate replacement behavior for their child in order to reinforce their efforts to increase the likelihood of their child doing the appropriate behavior the next time. This project highlights the need for future research in the area of parental self-efficacy among parents of children with autism in order to better understand the challenges they are faced with when implementing home-based A.B.A. treatment.

APPENDIX A

SOCIO-DEMOGRAPHIC QUESTIONNAIRE

SOCIO-DEMOGRAPHIC QUESTIONNAIRE

1. Participant's age: _____

2. Participant's Gender:
   - □ Female
   - □ Male
   - □ Legal guarding
   - □ Other Specify: _____

3. Participant's relationship to child:
   - □ Biological parent
   - □ Adoptive parent
   - □ Step-parent

4. Participant's Race/ Ethnicity:
   - □ Caucasian
   - □ African-American
   - □ Latino
   - □ Asian
   - □ Other Specify: _____

5. Participant's Marital Status:
   - □ Single
   - □ In a relationship
   - □ Married
   - □ Separated
   - □ Divorced
   - □ Widow

6. Participant's Level of Education:
   - □ Some High School
   - □ High School degree
   - □ Some College
   - □ Associates degree
   - □ Bachelor's degree
   - □ Graduate degree

7. Average Annual Family Income:
   - □ $0 – $14,999
   - □ $15,000 – $29,999
   - □ $30,000 - $44,999
   - □ $45,000 - $59,999
   - □ $60,000 - $74,999
   - □ $75,000 – above

8. Number of Children in the Family:

Age	Gender	Diagnosis	Specify	Date Diagnosed (mm/yyyy)
___	M / F	Y / N	_____	_____
___	M / F	Y / N	_____	_____
___	M / F	Y / N	_____	_____
___	M / F	Y / N	_____	_____
___	M / F	Y / N	_____	_____

9. How long has/have your child/children with a diagnosis been in home-based A.B.A. treatment?

Age	Gender	Length in home-based A.B.A treatment	
		Years	Months
___	M / F	_____	_____
___	M / F	_____	_____
___	M / F	_____	_____
___	M / F	_____	_____
___	M / F	_____	_____

10. What percentage would you rate your participation in the home-based A.B.A. treatment?
    - □ 0% - 25%
    - □ 25% - 50%
    - □ 50% - 75%
    - □ 75% - 100%

Developed by Carmen Ruiz-Ochoa

APPENDIX B

THE SELF-EFFICACY PARENTING TASK INDEX

THE SELF-EFFICACY PARENTING TASK INDEX

INSTRUCTIONS: Please respond to the following statements by circling the number that is closest to how you feel about the sentence.

1=strongly agree 2=agree 3=slightly agree 4=slightly disagree 5=disagree 6=strongly disagree

Emotional Availability

1. Even when I have had an unusually distressing day, I think my child knows I am available to meet his or her emotional needs.
   1 2 3 4 5 6

2. I believe that I adequately meet my child's needs to feel secure and accepted.
   1 2 3 4 5 6

3. When my child needs me, I am able to easily put aside whatever else I may be doing.
   1 2 3 4 5 6

4. I find it difficult to always be available to provide my child with the comfort he/she needs in dealing with the many frustrations and fears that children face each day.
   1 2 3 4 5 6

5. Providing physical comfort for my child is easy for me.
   1 2 3 4 5 6

6. I am usually willing to stop what I'm doing and cuddle my child when he/she seems to need affection.
   1 2 3 4 5 6

7. I am often too preoccupied with my own problems to keep up with my child's changing emotions.
   1 2 3 4 5 6

Nurturance/Valuing/ Empathetic Responsiveness

8. I am able to sense when my child is starting to become distressed.
   1 2 3 4 5 6

9. My child knows that I understand when his/her feelings are hurt.
   1 2 3 4 5 6

10. I think my child knows by my behavior how much I really adore him/her.
    1 2 3 4 5 6

1=strongly agree 2=agree 3=slightly agree 4=slightly disagree 5=disagree 6=strongly disagree

11. My child feels very loved by me.
    1 2 3 4 5 6

12. I think I am tolerant and understanding when my child displays negative emotions.
    1 2 3 4 5 6

13. I find it very distressing when my child isn't in a good mood.
    1 2 3 4 5 6

14. I definitely fulfill my parental duties when it comes to providing emotional support for my child.
    1 2 3 4 5 6

15. When my child has a problem, he/she knows I will want to help.
    1 2 3 4 5 6

Protection

16. Providing a safe, hazard-free environment for my child is very difficult for me.
    1 2 3 4 5 6

17. I feel comfortable with my ability to react well should an emergency arise in which my child's physical well-being is in danger.
    1 2 3 4 5 6

18. When I leave my child in someone else's care, I make sure that the substitute care provider will be capable of protecting my child from harm.
    1 2 3 4 5 6

19. I have my home arranged to prevent as many accidents as possible with my child.
    1 2 3 4 5 6

20. I am very good about never leaving my child unattended.
    1 2 3 4 5 6

21. I always make sure I can see my child in order to make sure he/she does not get hurt.
    1 2 3 4 5 6

22. I have difficulty determining what is and is not safe for my child to do.
    1 2 3 4 5 6

1=strongly agree 2=agree 3=slightly agree 4=slightly disagree 5=disagree 6=strongly disagree

Discipline/Limit Setting

23. Disciplining my child does not seem to be coming as naturally to me as other parts of parenting.
    1 2 3 4 5 6

24. I have trouble getting my child to listen to me.
    1 2 3 4 5 6

25. Other parents seem to have more success with setting limits for their children than I do with my child.
    1 2 3 4 5 6

26. Setting limits for my child is relatively easy for me.
    1 2 3 4 5 6

27. When my child tests the limits that I have set up, I find myself becoming extremely discouraged.
    1 2 3 4 5 6

28. Telling my child "no" when safety isn't the issue is hard for me.
    1 2 3 4 5 6

29. I allow my child enough freedom to actively explore the environment.
    1 2 3 4 5 6

Play

30. I can always think of something to play with my child.
    1 2 3 4 5 6

31. I am a fun playmate for my child.
    1 2 3 4 5 6

32. I find it hard to loosen up and just play with my child.
    1 2 3 4 5 6

33. I am able to get actively involved in playing with my child.
    1 2 3 4 5 6

34. Playing is a part of my relationship with my child that I have very little difficulty with.
    1 2 3 4 5 6

1=strongly agree 2=agree 3=slightly agree 4=slightly disagree 5=disagree 6=strongly disagree

35. I really need to learn how to just have fun with my child.
    1 2 3 4 5 6

36. I think I spend an appropriate amount of time just playing with my child.
    1 2 3 4 5 6

Teaching

37. I believe my child learns a great deal from my efforts to show him/her things.
    1 2 3 4 5 6

38. Assisting my child with learning to talk and understand words is a part of parenting that I leave to others.
    1 2 3 4 5 6

39. Sitting down regularly with my child to read or do some other one-on-one activity is not difficult for me.
    1 2 3 4 5 6

40. I am probably not that great at teaching my child about the world.
    1 2 3 4 5 6

41. I have some difficulty figuring out the appropriate level of instruction when I'm trying to explain something to my child.
    1 2 3 4 5 6

42. Helping my child learn colors, names of objects, etc. is not one of my strongest points.
    1 2 3 4 5 6

43. My child learns more from me than anyone else in his/her life.
    1 2 3 4 5 6

44. I easily find opportunities to point out things about the world during my daily interactions with my child.
    1 2 3 4 5 6

45. Although I would like to help my child learn more about his/her surroundings, this is an area of parenting that I do not feel well-equipped for.
    1 2 3 4 5 6

1=strongly agree 2=agree 3=slightly agree 4=slightly disagree 5=disagree 6=strongly disagree

Instrumental Care/ Structure/ Routines

46. I have been able to establish a daily routine with my child that feels comfortable to both of us.
    1 2 3 4 5 6

47. I am able to provide my child with a comfortable amount of daily structure.
    1 2 3 4 5 6

48. I have been successful in getting my child to eat on a fairly regular schedule.
    1 2 3 4 5 6

49. I feel like I have no control over my child's sleep habits.
    1 2 3 4 5 6

50. I am not very good at getting my child to stick to a regular daily schedule.
    1 2 3 4 5 6

51. Although I have tried to train my child to eat well, my efforts have been met with very little success.
    1 2 3 4 5 6

52. I don't seem to be able to establish a regular bed time routine with my child.
    1 2 3 4 5 6

53. I have worked out a fairly regular morning routine with my child.
    1 2 3 4 5 6

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