

A QUASI-EXPERIMENTAL INVESTIGATION OF THE IMPACT OF THE  
NURTURED HEART APPROACH ON PARENTING CONFIDENCE, USE OF  
APPOPRIATE VERBAL DISCIPLINE AND PERCEPTIONS OF CHILD  
INTERPERSONAL STRENGTHS IN A CAUCASIAN POPULATION SAMPLE

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## ABSTRACT

This dissertation study, which utilized 2015 archival evaluation data on the NHA intervention, had two overarching study goals. The first goal was to determine if there were statistically significant pretest to posttest changes in parenting confidence, use of appropriate verbal discipline, and parent perceptions of child interpersonal strengths among 219 parents with children, ages 5 to 8, who participated in the NHA intervention in 2015. To address the first study goal, a series of repeated-measures analyses of variance (ANOVA) were conducted. The second study goal was to determine if parenting confidence, use of appropriate verbal discipline, and parent perceptions of child interpersonal strengths posttest mean scores were significantly different between 31 NHA intervention and 31 control parents, matched on pretest scores, parent gender, and child age (there were not enough intervention parents to match on child gender). The second study goal was addressed by conducting between-within (mixed) ANOVAs. Due to the relatively large number of analyses for hypothesis testing, the significance was set at  $p < .017$ , based on a Bonferroni correction. Results from the repeated-measures ANOVAs showed that the 219 NHA intervention parents had significant pretest-to-posttest increases in parenting confidence, use of appropriate verbal discipline, and perceptions of child interpersonal strengths. Results from the between-within (mixed) ANOVAs showed that NHA intervention parents had significantly higher use of

appropriate verbal discipline from baseline to post-intervention; this significant change was not found for the group of control parents. NHA intervention parents did not, however, have significantly higher parenting confidence or perceptions of child interpersonal strengths posttest scores as compared to the control group of parents. Implications of the study are discussed.

## DEDICATION

To parents everywhere who struggle every day to be the best parent they can be.  
Including myself.

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## CHAPTER I

### INTRODUCTION

As noted by researchers, clinicians, and parents, the task of parenting, though rewarding, is highly complex, often stressful, and frequently demanding and overwhelming (Brock & Kochanska, 2016; Cline & Fay, 2014; Reder & Lucey, 2014; Styles, 2016). Parenting is one of the most critical and yet one of the most difficult jobs a human being can have, as it carries the responsibility to ensure the health, safety, and wellbeing of a child (Brock & Kochanska, 2016; Cline & Fay, 2014; Sunderland, 2016). Becoming a parent is a major life transition (Cowan & Hetherington, 2013; Hetherington, 2014). The new parent must learn how to adjust to this new and unique social role where he/she must balance existing family, work, and social obligations and responsibilities with the tremendous responsibilities inherent to parenting (Brock & Kochanska, 2016; Cline & Fay, 2014; Reder & Lucey, 2014; Styles, 2016).

Individuals who have poor parenting confidence and feelings of efficacy may be more at risk for developing maladaptive parenting behaviors that can increase the likelihood of child behavioral problems (Smith, 2010; Styles, 2016; Tremblay et al., 2004). However, as stated by Reedtz et al. (2011), “parenting ... is the most modifiable factor contributing” to child adaptive outcomes (p. 131). There is extensive empirical evidence that participation in parent education interventions can modify negative



cognitions, attitudes, and behaviors as they relate to parenting (e.g., Brock & Kochanska, 2016; Brotman et al., 2011; Cline & Fay, 2014; Dittman, Farruggia, Keown, & Sanders, 2016; Durrant et al., 2014; Faith et al., 2012; Lewallen & Neece, 2015; Reyno & McGarth, 2006; Shelleby & Shaw, 2014).

Despite the number and scope of parent education interventions available to parents, a limited number of interventions have sufficient empirical evidence to identify them as evidence-based (Fine, 2014; Ponzetti, 2015). A majority of the evidence-based parenting interventions, which include *Love and Logic* (Cline & Fay, 2014) and *Triple P* (Thomas & Zimmer-Gembeck, 2007) are directed at families at risk or in crisis and often focus on improving dysfunctional parenting practices and/or child behavior (Fine, 2014; Ponzetti, 2015). A small but growing body of empirical work (e.g., Brennan & Hektner, 2012a, 2012b; Brennan, Hektner, Brotherson, & Hansen, 2016; Taperek & Ruoff, 2009) has provided evidence supporting the effectiveness of Glasser's (1999, 2007) Nurtured Heart Approach (NHA), a parent education program that is more preventative in nature.

This quasi-experimental study had two research goals. The first goal was to examine whether there were significant pretest to posttest increases in parenting confidence, use of appropriate verbal discipline, and perception of child interpersonal strengths in a sample of 219 Caucasian parents who participated and completed a the NHA intervention in 2015. The second study goal was to determine if a matched group of 31 NHA intervention parents – a subset of the larger sample of intervention parents - had significantly higher parenting confidence, use of appropriate discipline, and parent perceptions of child interpersonal strengths posttest mean scores as compared to 31 control parents.

The purpose of this chapter is to provide a comprehensive review of the study. The chapter opens with a background section in which the pertinent body of literature is summarized. The problem addressed in this study and the purpose of the study are elucidated, and the research questions (with associated hypotheses) are presented. Subsequent sections pertain to the study assumptions, limitations, and delimitations of the study. Key study constructs are then defined. The chapter ends with a conclusion.

### **Background of the Study**

Parenting practices play a profound role in a child's social-emotional development and functioning (Reder & Lucey, 2014; Sunderland, 2016). Almost 75 million children between the ages of 2 and 17 had a mental health disorder in 2016, making mental illness the most common disease of childhood (Child Mind Institute, 2017). In a Centers for Disease Control and Prevention (CDC) study, Perou et al. (2013) analyzed child mental health surveillance data collected between 2005 and 2011. Perou et al.'s results showed that approximately 20% of children, ages 2 to 17, had a diagnosed mental health disorder, a percentage that remained relatively steady from 2005 to 2011. With regard to specific mental health disorders, Perou et al. found that the prevalence rate of conduct disorder remained at a steady 4% for children ages 2 to 17 between 2005 to 2011. In contrast, there was a pronounced increase in the prevalence rate of clinical depression in children ages 2 to 17, almost tripling from 3.0% in 2005 to 8.1% in 2011. The rate of children in in-patient treatment for depression and related mood disorders increased by 80% during this time period (Perou et al., 2013).

## **The Effects of Parenting on Children**

Numerous researchers have demonstrated the relationship between poor parenting and child behavioral problems (Beauchaine, Webster-Stratton, & Reid, 2005; Brotman et al., 2011; Caspi et al., 2004; Gianotta et al., 2012; Dishion & Stormshak, 2007; Lytton, 1990; Patterson, Reid, & Dishion, 1992; Rutter et al., 1996; Sunderland, 2016). A child's risk for developing emotional and/or behavioral problems increases if the parent is impaired (e.g., as a result of a mental health and/or substance abuse problems; family, spouse, or financial stressors; lack of emotional and social support) and evinces poor psychosocial functioning (Bailey et al., 2013; Riley et al., 2009; Sabol, Chase-Lansdale, & Brooks-Gunn, 2015; Slatcher & Trentacosta, 2012). Parents under duress may engage in reactive parent behaviors, which include: These parenting practices include (a) the approval and consistent use of corporal punishment techniques; (b) responding to a child's achievement(s) by demeaning, criticizing, ridiculing, and/or belittling the child; (c) quickly turning to anger in response to the child's smallest transgression(s); (d) consistent disregard of and/or indifference toward the child's emotional states; and (e) use of intimidation, manipulation, and control to undermine the child's sense of purpose and independence (Brooker & Buss, 2014; Durrant et al., 2014; Gómez-Ortiz et al., 2016).

Waylen, Stallard, and Stewart-Brown's (2008) study provided a sound example of reactive parenting practices. In this study, the parents reported their attitudes and behaviors towards parenting in over 8,000 surveys; the results revealed that 62% of parents experienced hostility and 80% resentment. Additionally, 83% of the parents reported having hit or yelled at their children. Longitudinal results from Waylen et al.'s

(2008) suggested a causal relationship between negative parenting and later health problems in children. Considering the fact that negative parenting is almost certainly underreported, it is assumed that negative parenting is significantly higher. These negative parenting attitudes were rather high, especially when considering that results were based on parent self-reports.

Findings from research has specifically shown strong associations between reactive parenting practices and increased risk for child and adolescent internalizing (Abela, Skitch, Adams, & Hankin, 2006; Bailey et al., 2006) and externalizing disorders (Burt et al., 2005; Caspi et al., 2004; Tully & Hunt, 2016; van Aar, Leijten, de Castro & Overbeek, 2017). Furthermore, researchers have documented that reactive parenting behaviors may negatively impact child and adolescent physical health (Repetti et al., 2002; Rogers & Pilgrim, 2014; Styles, 2016).

The development, health, and wellbeing of a child are enhanced by positive parenting practices (Cprek, Williams, Asaolu, Alexander, & Vanderpool, 2015). Positive parenting practices are those that create “a responsive, sensitive, and nurturing environment” for the child (Reedtz, Handegård, & Mørch, 2011, p. 53). Positive parenting incorporates components of (a) authoritative parenting style, that is demonstrating love and kindness while providing structure and setting limits; (a) social cognitive theory (Bandura, 1986), such as modelling appropriate behavior and using positive reinforcement (versus punishment) techniques aimed at reducing unfavorable child behaviors and promoting desirable ones (Giannotta, Ortega, & Stattin, 2012); (c) scaffolding, or the providing of support, resources, and guidance to promote the child’s learning of a new skill and gradually reducing this support as the child increases his/her

self-regulated learning; (d) effective parent-child communication skills, such as praising the child for an achievement, conversing with the child to promote language skills, explaining why the parent is unhappy about a certain child behavior, and actively listening to the child; and (e) being involved and engaged in the child's life (Ellingsen, Baker, Blacher, & Crnic, 2014; Farrant, Devine, Maybery, & Fletcher, 2012).

Positive parenting practices have considerable influence on child academic, social, emotional, and behavioral outcomes (Baumrind, 1991, 2012; Hines & Holcomb-McCoy, 2013; Toldson & Lemons, 2013). Research has documented that positive parenting practices assert more of an influence on child adaptive behaviors than do parents' education level (Carr & Pike, 2012; Toldson & Lemmons, 2013) and socioeconomic status (Brotman et al., 2011). In a study conducted with an ethnically diverse group of parents, Westbrook and Harden (2010) found that parenting practices contributed from 21% to 37% (depending on parent ethnicity) of the variance in the outcome of child social-emotional functioning.

Positive parenting practices have been strongly linked to healthy and adaptive outcomes in both children and adolescents across diverse parent groups, including socioeconomic (e.g., Brotman et al., 2011; Toldson & Lemmons, 2013), ethnic (e.g., West-Olatunji, Sanders, Mehta, & Behar-Horenstein, 2010; Toldson & Lemmons, 2013), and cultural groups (e.g., Giannotta et al., 2012; Reedtz et al., 2011). Positive parenting practices have shown to be especially beneficial for children living in low-income and/or high-crime neighborhoods, as these practices often provide to the child a buffer against environmental stressors (Bailey, Hannigan, Delaney-Black, Covington, & Sokol, 2006; Plybon & Kliwer, 2001; Woolley & Grogan-Kaylor, 2006).

Golding (2000) argued that positive parenting practices (e.g., parenting behaviors fostering the child's self-esteem and self-concept) is not instinctive, and is often simply learned through trial and error. Considering the importance of parenting to a child's development, the adoption of parenting skills by "trial and error" may be naïve and irresponsible (Golding, 2000). Some researchers have suggested that how one is parented affects the way they will parent (Smith, 2010). Indeed, in a study conducted by Patterson et al. (2002) the researchers found that parents in the study often developed their parenting skills based on the child-rearing experiences they were exposed to as children, resulting in repeated patterns of parent-child dyadic behavior, whether positive or negative (Patterson et al., 2002).

**Parental influences on children's self-esteem.** A child's self-esteem and self-concept is very much related to positive parenting practices and the quality of parent-child relationships (Dishion & Stormshak, 2007). Self-esteem is defined by Muris, Meesters, and Fijen (2003) as "an individual's feelings of his or her worthiness and competence" (p. 1791). Self-concept, which includes a sense of belonging, a sense of worth and a sense of competence, affects the manner in which an individual interacts with the world. Self-concept is learned within the context of the family and is a powerful determinant of behavior and achievement (Hamner & Turner, 2001). The greater a child's self-concept, the greater are his/her chances for success, starting as early as kindergarten and becoming more prominent as they get older (Harter, 1999, 2006, 2012). As argued by Harter (2012), a child with poor self-concept may be withdrawn, anxious, overly cautious, defensive, and lacking in confidence, which affects both their academic achievement and social interactions.

Hamner and Turner (2001) noted the importance of parents in fostering a positive self-concept by focusing attention on their children's strengths and downplaying their weaknesses, thereby assisting with the children's evaluation of themselves. Such positive parenting behaviors are critical in the infant years and are also important throughout preschool and school age years. Some have proposed that self-worth is very much tied to the family environment (Harter, 1999, 2006, 2012; Muris, Meesters, & Fijen, 2003). Parents who are caring and accepting are more likely to have children with higher self-esteem, while "socializing agents who are rejecting and punitive often produce children with very negative self-evaluations" (Harter, 1999, p. 167). Low self-esteem often manifests in children as internalizing or externalizing behavior problems. Indeed, low self-esteem has been linked to externalizing behaviors such as aggression and delinquency (Donnellan, Trzesniewski, Robins, Moffitt, & Caspi, 2005). Though Baumeister, Smart and Boden (1996) challenged this assertion and argued that adolescents who are aggressive are actually exhibiting high self-esteem.

### **Parent Education Interventions**

Parenting education is arguably more critical today than at any time in American history as a result of numerous factors. There are more single parent families, divorced parents, blended families, adoptive parents, same gender parents, and grandparents parenting than ever before (Childstats, 2017). In 2016, there were approximately 17 million children under the age of 18 living in the United States (Childstats, 2017). Twenty percent of the 17 million children live in poverty; the percent increases to 24% for children ages 1 to 5 years (Childstats, 2017). As of 2016, over a quarter of children under the age of 18 reside in single parent households – and of those, only 2% reside

with their fathers (Childstats, 2017). Of the 2.8 million children not living with a biological parent, the majority (1.6 million) resided with their grandparents, 670,000 resided with other relatives, and 530,00 resided with nonrelatives (Childstats, 2017). There are more single parent families, divorced parents, blended families, adoptive parents, same gender parents, and grandparents parenting than ever before (Childstats, 2017; Gibbs et al., 2015). In addition, according to the Children's Bureau (2017) 3.4 million child abuse referrals were made to Child Protective Services, and 8.3% increase since 2008. Of those 3.4 million referrals, 1,640 resulted in a child fatality (Children's Bureau, 2017).

As a response to such changes and the growing awareness of child abuse and neglect, intervention parenting education programs have proliferated which aim to correct problematic behaviors in children (e.g., Akin, Brook, Lloyd, Bhattarai, Johnson-Motoyama & Moses, 2016; Smith, 2010; Shelleby & Shaw, 2014; Tully & Hunt, 2016; van Aar, Leijten, de Castro, & Overbeek, 2017). The curriculum of intervention programs often includes teaching alternatives to corporeal punishment, which many parents rely on in disciplining their children (Sanders, Markie-Dadds, Rinaldis, Firman, & Baig, 2007). It has been proposed though, that interventions that focus on changing negative parenting and child behaviors are not the most efficient and optimal option. Instead, parenting interventions that are preventative in nature are posited to be more beneficial (Hoghughi, 1988; Smith, 2010). Indeed, parenting education in the early years of parenting is considered more than education; it is prevention. Havighurst, Wilson, Harley, and Prior (2009) corroborated this position and maintained not only was



it easier to change children's behaviors at young ages, but also easier to change parenting behaviors.

There is a paucity of research on the efficacy of parenting interventions that are preventative in nature: most of the empirical research evaluating the efficacy of parenting programs has been conducted with parents who already have a child exhibiting behavioral problems or with parents from at-risk populations (Barlow et al., 2005).

Considering the progression of negative behavior, the danger it causes to others, and the mental health costs that may be incurred later (in the juvenile system as well as the court and prison systems), investing in parenting education prevention programs may be cost-effective (Barth, 2009). In addition to the financial costs of negative behavior, behavioral problems cause great suffering to the children and for their family and peers (Axberg, Johansson Hanse, & Broberg, 2008). Brazelton (2002) noted there is much we can do to prevent and treat the breakdown of American families. The future of our children depends on research to establish the most effective programs to prevent problems from occurring and give our children the tools they need to face the world with confidence. It was the intent of the current investigation to add to the literature on effective parenting interventions aimed at prevention by evaluating Glasser et al.'s (1999, 2007) NHA.

### **Statement of the Problem**

As of 2013, over 500 clinicians have been trained in the NHA approach, and the NHA program has been implemented in 15 countries and 41 states (Hektner, Brenna, & Brotherson, 2013). However, only recently has research supported the effectiveness of the NHA program in enhancing parental attitudes, behaviors, and parental perceptions of

their children (Allman, 2014; Hektner et al., 2013). There is a strong correlation between parenting behavior and children's mental health; in fact, improving parenting behavior has been effective in improving children's internalizing and externalizing behavior (Brotman et al., 2011; Cartwright-Hatton, McNally, White, & Verduyn, 2005; Hindman et al., 2012). Parenting education may also be particularly important in mitigating both parental suboptimal behaviors and children's behavioral problems. Left untreated, such negative behaviors can continue and impact society negatively. Research indicates that prevention is critical, and parent training is effective in mediating child development and behavior problems (Hahlweg, Heinrichs, Kuschel, Bertram, & Naumann, 2010).

### **Purpose of the Study**

The purpose of this quantitative study was to test the effectiveness of the Nurtured Heart Approach (NHA) parent education intervention, using 2015 NHA archival data from the Psychology Department at North Dakota State University. This study had two goals. The first goal was to determine if the 219 intervention parents showed significant increases in perceived parenting confidence, increased use of appropriate discipline, and perceived improvement in the target's child interpersonal strengths from participating in the NHA program. The second study goal was to determine if a matched group of 31 NHA intervention parents have significantly higher parenting confidence, use of appropriate discipline, and parent perceptions of child interpersonal strengths posttest mean scores as compared to 31 control parents.

## **The Nurtured Heart Approach (NHA)**

This study is an investigation of the effectiveness of the Nurtured Heart Approach (NHA) parenting education program. The NHA was founded by Glasser (1999). This parenting education program teaches parents to focus on the positive rather than negative aspects of their children's behaviors. In this respect, it is very different from other approaches, which often direct the most attention to behavior problems rather than behavior successes. The NHA program is based on strategic family therapy principles and thus far has been primarily used in school settings (Glasser, 1999). Although there is a substantial amount of anecdotal evidence reported by parents and teachers on the effectiveness of this program, there is a lack of empirical evidence to support the efficacy of the NHA program with parents. Moreover, the program is currently not well-known or widely used in the United States.

**NHA program components.** The primary focus of the NHA program is to “re-train” parents to utilize positive reinforcement and modeling techniques to increase their child's positive behaviors while reducing their problem behaviors (Glasser & Easley, 2008, p. 9). This re-training is done in six sessions that are aligned with the three stands of the NHA program: (a) *Stand One: Refusal to Energize Negativity*; (b) *Stand Two: Energize the Positive*; and (c) *Stand Three: Provide and Uphold Limits* (Allman, 2014; Glasser, 2007). Workshop sessions are structured around the NHA's *Three Stands* (Allman, 2014; Glasser, 2007). During the first session, parents first complete the NHA pretest surveys and then start the program, focusing on the first stand (Allman, 2014; Glasser, 2007). Starting in the first session and ending in the second session, the parents are taught how their use of punishment and negative feedback actually increase their

child's problem behaviors; that by focusing on their child's negative behavior, parents are actually focusing on increasing such behavior (Allman, 2014; Glasser, 2007). As this idea is at times difficult for parents to fully understand, they are often given homework assignments that provide an experiential component to the session topics (Allman, 2014; Glasser, 2007). This homework assignment is then discussed in session two or possibly session three of the NHA workshop (Allman, 2014; Glasser, 2007).

The third through fifth workshop sessions focus the second and third stands and entail changing the parents' behaviors, away from the negative toward more positive interactions with their child (Allman, 2014; Glasser, 2007). In the third session, parents are taught *active recognition*, the first step of Stand Two, where a parent is taught to notice and comment on positive behaviors in their child, no matter how few or how small (Allman, 2014; Glasser, 2007). As this is often a new concept for the parents, the entire second session is devoted to parents' development of active recognition strategies (Allman, 2014; Glasser, 2007). The fourth workshop session focuses on the second step of Stand Two, *experiential recognition* (Allman, 2014; Glasser, 2007). Trainers recognize that it may be difficult for parents to notice those times when their child is behaving in a prosocial manner (Allman, 2014; Glasser, 2007). As such, the trainers spend session time working with parents to enhance their awareness of times when their child is behaving in a positive manner and to use appropriate feedback and comments to their child (Allman, 2014; Glasser, 2007).

The third stand is the focus of the fifth workshop (Allman, 2014; Glasser, 2007). During the third stand, parents engage in *proactive recognition*, where they make a clear request that their child perform a certain activity and then provide positive feedback

when the child has completed that request (Allman, 2014; Glasser, 2007). During the sixth and last workshop, parents engage in role modeling and experiential activities to build the skills they have learned in the past sessions (Allman, 2014; Glasser, 2007). They also complete the posttest surveys (Allman, 2014; Glasser, 2007). The NHA program is discussed in detail in Chapters II and III.

**Research on the NHA.** While not extensively evaluated, the NHA intervention has received empirical attention. Some studies have focused on the school-based NHA intervention (e.g., Glasser, 2007; North Education Center [NEC], 2010). NEC (2010) conducted an evaluation of the school-wide implementation of NHA was conducted by the North Education Center (NEC; 2010), a Setting IV Separate Public Day School for students with disabilities such as autism, developmental and cognitive delays, emotional and behavior disorders, and fetal alcohol syndrome has demonstrated the positive effects of the NHA. At the time, the NEC over 200 students and approximately 185 full- and part-time staff (NEC, 2010). NEC (2010) documented that, one year after implementation of the NHA, school staff reported a 20% decrease in the use of restrictive procedures (i.e., when a staff member places their hands on a child with disabilities to keep them or others safe, typically in the case of an emergency such as continuous aggression, continuous self-injurious behavior or continuous high-magnitude disruption) (NEC, 2010). The staff also reported improvements in literacy and staff and student attendance, as well as a decrease in 911 calls, based on pre- and post-implementation of the NHA (NEC, 2010).

The first formal evaluation of the NHA program was conducted by Glasser (2007) with regard to the school-wide implementation of the NHA program at Tolson

Elementary in Tucson, Arizona, a school with the highest rate of suspension in a district of over 60 schools. Three years after the implementation of the NHA program, Glasser (2007) found that (a) special education costs decreased from 15% to 1.2%; (b) teacher attrition dropped from 50% to 0%; and (c) the Gifted and Talented program enrollment increased from 2% to 15% (Glasser, 2007). Glasser attributed these results to the theory-based implementation of NHA, based on his theory that children who begin to feel great about themselves want to behave well and do well.

A majority of the studies examining the efficacy of the NHA intervention with regard to parents have been conducted by Brennan, Hektner, and colleagues (Brennan & Hektner, 2012; Brennan et al., 2016; Hektner, 2012; Hektner, Brennan, & Brotherson, 2013). Hektner (2012) evaluated the efficacy of the NHA using a sample of 190 Caucasian parents in the intervention group and 94 Caucasian parents in the control group. Hektner used all subscales on the PRQ and PDS as well as the BERS-2. Hektner conducted a series of paired-samples *t*-tests to determine if the intervention and control groups of parents, respectively, had significant pretest to posttest changes on these measures. Hektner (2012) found significant pretest to posttest increases in parenting confidence and perceptions of child's interpersonal strengths and significant pretest to posttest decreases in relational frustration for the parents in the NHA intervention group. Parents in the NHA intervention group also had significant pretest to posttest increases in positive attention directed at their child and significant pretest to posttest decreases in use of inappropriate verbal discipline. These changes were not found for the group of 94 control parents.

Brennan and Hektner (2012) in a study conducted with 326 parents who participated in the NHA workshop and 92 control parents, found that parents in the NHA program reported significantly higher levels of parent well-being, positive parenting practices, and enhanced perception of child interpersonal strengths as compared to parents in the control group. In their second study, using the same participants, by Brennan and Hektner (2012b) found that parents in the NHA workshop reported increased levels of child interpersonal strength, regardless of the birth order of the child (Brennan & Hektner, 2012b).

Taperek and Ruoff (2009), researchers at The University of North Carolina at Chapel Hill, conducted a study with 320 parents who completed the NHA workshop and a control sample of 100 parents. Results from their study showed that parents in the NHA workshop reported significantly higher levels of parent well-being and perceived child interpersonal strengths than did parents in the control group (Taperek & Ruoff, 2009).

The results of these evaluation studies are promising. However, as stated by Hektner et al. (2013a), “additional work remains to be performed establishing the empirical effectiveness of the program with targeted populations” (p. 13). The proposed study will contribute to the existing literature on NHA by evaluating the effectiveness of the NHA program on parent and child outcomes.

### **Research Questions**

The study had six research questions, three of each that corresponded with the two study goals. The first three research questions aligned with the first study goal of determining if significant pretest to posttest increases in parenting confidence, parent use

of appropriate discipline, and parent perception of child interpersonal strengths emerged among the 219 Caucasian parents with children, ages 5 to 8, who participated in the NHA program in 2015. The last three questions aligned with the second study goal on whether significant differences in parenting confidence, parent use of appropriate discipline, and parent perception of child interpersonal strengths emerged at posttest between 31 control condition parents and a matched sample of 31 intervention parents, both of whom had children, ages 5 to 8.

The study variables were the same for the two study goals. The NHA intervention was the independent variable. The dependent variables were 1) parenting confidence, measured using the 25-item parenting confidence subscale Parenting Relationship Questionnaire (PRQ; Kamphaus & Reynolds, 2006); 2) parent use of appropriate verbal discipline, assessed using the 2-item appropriate discipline subscale of the Parent Discipline Scales (PDS; Conduct Problems Prevention Research Group, 2001); and 3) parent perception of child interpersonal strengths, measured using the 8-item interpersonal strengths subscale of the Behavioral and Emotional Rating Scale (BERS-2, 2nd ed.; Buckley & Epstein, 2004). Three repeated-measures ANOVAs were conducted for the first research goal while three between-within (mixed) ANOVAs were conducted for the second research goal.

### **Research Question 1**

Is there a statistically significant increase in parenting confidence, as measured by the PRQ parenting confidence subscale, upon completion of the 6-week NHA parenting intervention, among parents in the intervention condition?



**H<sub>1o</sub>.** There is not a statistically significant pre- to post-intervention increase in parenting confidence, as measured by the PRQ parenting confidence subscale, upon completion of the 6-week NHA parenting intervention, among parents in the intervention condition.

**H<sub>1a</sub>.** There is a statistically significant pre- to post-intervention increase in parenting confidence, as measured by the PRQ parenting confidence subscale, upon completion of the 6-week NHA parenting intervention, among parents in the intervention condition.

## **Research Question 2**

Is there a statistically significant increase in parent use of appropriate discipline, as measured by the PDS appropriate discipline subscale, upon completion of a 6-week NHA parenting intervention, among parents in the intervention condition?

**H<sub>2o</sub>.** There is not a statistically significant pre- to post-intervention increase in parent use of appropriate discipline, as measured by the PDS appropriate discipline subscale upon completion of a 6-week NHA parenting intervention, among parents in the intervention condition.

**H<sub>2a</sub>.** There is a statistically significant pre- to post-intervention increase in parent use of appropriate discipline, as measured by the PDS appropriate discipline subscale upon completion of a 6-week NHA parenting intervention, among parents in the intervention condition.

## **Research Question 3**

Is there a statistically significant increase in parent perception of child interpersonal strengths, as measured by the BERS-2 interpersonal strengths subscale,

upon completion of a 6-week NHA parenting intervention, among parents in the intervention condition?

**H<sub>3o</sub>.** There is not a statistically significant pre- to post-intervention increase in parent perception of child interpersonal strengths, as measured by the BERS-2 interpersonal strengths subscale, upon completion of a 6-week NHA parenting intervention, among parents in the intervention condition.

**H<sub>3a</sub>.** There is a statistically significant pre- to post-intervention increase in parent perception of child interpersonal strengths, as measured by the BERS-2 interpersonal strengths subscale, upon completion of a 6-week NHA parenting intervention, among parents in the intervention condition.

#### **Research Question 4**

Is there a statistically significant difference in parenting confidence, as measured by the PRQ parenting confidence subscale, upon completion of the 6-week NHA parenting intervention, between parents in the NHA intervention condition versus parents in the control condition?

**H<sub>1o</sub>.** There is not a statistically significant difference in parenting confidence, as measured by the PRQ parenting confidence subscale, upon completion of the 6-week NHA parenting intervention, between parents in the NHA intervention condition versus parents in the control condition

**H<sub>1a</sub>.** There is a statistically significant difference in parenting confidence, as measured by the PRQ parenting confidence subscale, upon completion of the 6-week NHA parenting intervention, between parents in the NHA intervention condition versus parents in the control condition.

### **Research Question 5**

Is there a statistically significant difference in parent use of appropriate discipline, as measured by the PDS appropriate discipline subscale, upon completion of a 6-week NHA parenting intervention, between parents in the NHA intervention condition versus parents in the control condition?

**H<sub>20</sub>.** There is not a statistically significant difference in parent use of appropriate discipline, as measured by the PDS appropriate discipline subscale, upon completion of a 6-week NHA parenting intervention, between parents in the NHA intervention condition versus parents in the control condition.

**H<sub>2a</sub>.** There is a statistically significant difference in parent use of appropriate discipline, as measured by the PDS appropriate discipline subscale, upon completion of a 6-week NHA parenting intervention, between parents in the NHA intervention condition versus parents in the control condition.

### **Research Question 6**

Is there a statistically significant difference in parent perception of child interpersonal strengths, as measured by the BERS-2 interpersonal strengths subscale, upon completion of a 6-week NHA parenting intervention, between parents in the NHA intervention condition versus parents in the control condition?

**H<sub>30</sub>.** There is not a statistically significant difference in parent perception of child interpersonal strengths, as measured by the BERS-2 interpersonal strengths subscale, upon completion of a 6-week NHA parenting intervention, between parents in the NHA intervention condition versus parents in the control condition.

**H<sub>3a</sub>.** There is a statistically significant difference in parent perception of child interpersonal strengths, as measured by the BERS-2 interpersonal strengths subscale, upon completion of a 6-week NHA parenting intervention, between parents in the NHA intervention condition versus parents in the control condition.

### **Assumptions Underlying the Study**

Babbie (2015) defined assumptions in research studies as aspects of the study that are taken as true. Quantitative studies have philosophical (paradigmatic), methodological, and statistical assumptions (Babbie, 2015). The positivist paradigm guides quantitative research. There are ontological, epistemological, and axiological assumptions of the positivist approach concern the nature of reality (ontology), knowledge (epistemology), and values in research (axiology) (Babbie, 2015). In accordance with the positivist ontological assumption regarding the nature of reality, this study was based on the idea of a single reality that can be operationally-defined and measured. In accordance with the epistemological assumption regarding the nature of knowledge, this study is based on the idea that by using the scientific method, results that are objective and true can be obtained. In accordance with the axiological assumption regarding the nature of values in research, it is posited in this study that results that are free of bias can be obtained using ethical research practices (e.g., honesty, absence of bias, admission of study limitations, Babbie, 2015).

Quantitative studies have assumptions that concern the study methodology, including the theoretical framework, relevance of the study, study participants, and instrument data (Babbie, 2015). This study was informed by Bandura's (1977) social cognitive theory (SCT) and Mowder's (2005) parent development theory (PDT), both of

which acknowledge the importance of the social interactions between the parent and child. The theoretical assumption in this study was that the SCT and the PDT provided valid and meaningful theoretical guidance for the study. It is assumed that an evaluation study of the NHA parent intervention was relevant to the empirical literature on parenting interventions that are more preventative in nature.

Certain assumptions pertain to the study sample. It was assumed that the study participants are representative of the population of American parents who have children between the ages of 5 and 8 years who do not display severe parenting deficits. There is an additional sample assumption that study participants understood the survey questions and answered survey questions honestly. With regard to study instruments, it was assumed that the PRQ parenting confidence subscale, the PDS use of appropriate verbal discipline subscale, and the BERS-2 perception of child interpersonal strengths adequately measured study constructs and were valid and reliable.

In this study, certain statistical tests were conducted to determine if pertinent statistical assumptions for repeated-measures and one-way analysis of variance (ANOVA) statistical analyses were met. Results from two *post hoc* power analysis using G\*Power (Faul, Erdfelder, Buchner, & Lang, 2007) determined that the sample sizes of 219 and 62 were adequate to achieve power, or the ability to detect significant findings if they are present (please see Chapters III and IV for detailed power analysis information). Statistical tests confirmed that the data met the two assumptions relevant to both types of ANOVAs (see Chapter IV).

## **Limitations & Delimitations of the Study**

Babbie (2015) defined limitations as components of the study that can weaken the ability to confirm the validity of and to be able to generalize study findings. The study utilized a quasi-experimental design, which precluded the ability to determine cause-and-effect causality. Delimitations concern participant inclusion and exclusion criteria and the inferences that can be made based on these criteria (Babbie, 2015). This study was delimited to the examination of the effectiveness of only one parenting education program, the NHA, and was also delimited to the implementation of this intervention in 2015. Findings in this study cannot be generalized to parenting interventions other than the NHA program, nor can findings be generalized to future implementations of the NHA intervention. The study was also delimited to participants (a) who resided in North Dakota (as of 2015), (b) who did not evince dysfunctional parenting behaviors, and (c) who had at least one child between the ages of 5 and 8 not diagnosed with a developmental disability or mental health problem. Findings from this study cannot be generalized to (a) parents of children, ages 5 to 8, who reside in North Dakota but have not participated in the NHA intervention; (b) parents of children, ages 5 to 8, who reside in other states; (c) parents of children who are younger than age 5 or older than age 8; (d) parents who have dysfunctional parenting practices; or (e) parents of children with developmental disabilities or mental health issues.

## **Definitions and Operational Terms**

### **Nurtured Heart Approach (NHA)**

The Nurtured Heart Approach, or NHA, is a parenting program developed by Howard Glasser (1999). The NHA, created to enhance parenting skills among parents

who had children with problem behaviors, provides parents with the tools to inspire their children to make better choices and to improve behavior (Glasser, 1999, 2007). The NHA is based on Bandura's (1977) social cognitive learning theory and utilizes modeling and positive reinforcement in its approach (Glasser, 1999, 2007). Glasser (2007) reported that the NHA program has resulted in children becoming more secure, showing higher achievement, and demonstrating excellent conduct and inner strength.

### **Parent Perception of Child Interpersonal Strengths**

Parent perceptions of child interpersonal strengths concern the parent's perception of their child's "ability to control his or her emotions or behaviors in social situations" (Furlong, Sharkey, Boman, & Caldwell, 2007, p. 703). In this study, the 8-item BERS-2 interpersonal strengths subscale was used to measure parents' perception of their targeted child's interpersonal strengths. Items on this subscale include "My child is kind toward others" and "My child can control his/her behavior."

### **Parent Use of Appropriate Verbal Discipline**

Verbal discipline pertains to the use of language and parent-child communication practices that are strengths-based and positive (Conduct Problems Prevention Research Group, 2001). The PDS Appropriate Discipline Scale was computed as a 2-item scale using item 1 ("Respond with the same negativity") and item 2 ("Yell or scold"). A *higher* score on the PDS Appropriate Discipline Scale indicated *lower* use of appropriate verbal discipline.

### **Parenting Confidence**

Parenting confidence refers to a parent's sense of self-esteem or self-efficacy with regard to their perceived parenting abilities (Vance & Brandon, 2017). Parenting

confidence is based on self-perception and differs from parenting competence, which is an objective assessment of an individual's parenting behaviors made by someone other than the parent (Vance & Brandon, 2017). The 25-item PRQ parenting confidence subscale was used to measure parenting confidence in this study. Example items on this subscale include: (a) I make good parenting decisions, (b) My child knows the house rules, and (c) I am a good parent to my child.

### **Summary**

The literature has demonstrated the important role of the parent, parenting, and parent education in healthy child development (Dittman et al., 2016; Sunderland, 2016). Unfortunately, many parenting interventions have focused on parents with dysfunctional practices and/or parents with children who have mental health issues (Dittman et al., 2016; Hindman et al., 2012; Stagner, 2009). Fewer interventions have been developed with the intent to enhance parenting behaviors among parents who have common stressors related to parenting and who do not engage in negative and dysfunctional practices (Dittman et al., 2016; Hindman et al., 2012; Stagner, 2009). Parenting interventions that are more preventative in nature may positively impact the mental health of our children, and reduce the negative consequences of untreated child behavior problems ((Dittman et al., 2016; Hindman et al., 2012; Stagner, 2009; Webster-Stratton, Reid & Hammond, 2001). However, there is a lack of research on the efficacy of certain programs or particular training strategies on parent and child outcomes. It was the intent of this study to address this gap in the literature.

The purpose of this quasi-experimental study was to evaluate the impact of the NHA intervention on parenting confidence, parent use of appropriate verbal discipline,



and parent perceptions of child interpersonal strengths. The purpose of the first chapter of this dissertation was to provide a comprehensive overview of the study intent, premise, and goals, and it included a background section summarizing the literature, the problem addressed in the study, the purpose of the study, the research questions (with associated hypotheses), assumptions, limitations, and delimitations of the study, and key definitions. Chapter II is review of the literature.

## CHAPTER II

### LITERATURE REVIEW

The purpose of this quantitative study was to test the effectiveness of the Nurtured Heart Approach (NHA) parent education intervention, using 2015 NHA archival data from Dr. Joel Hektner, PhD, Professor of Psychology, North Dakota State University. This study had two goals. The first goal was to determine if the 219 intervention parents showed significant increases in perceived parenting confidence, increased use of appropriate discipline, and perceived improvement in the target's child interpersonal strengths from participating in the NHA program. The second study goal was to determine if a matched group of 31 NHA intervention parents have significantly higher parenting confidence, use of appropriate discipline, and parent perceptions of child interpersonal strengths posttest mean scores as compared to 31 control parents.

The purpose of this chapter is to summarize pertinent empirical literature and to introduce the theories that guide this study. The first section of the chapter provides a review of the family life cycle, and is followed by sections addressing various aspects of parenting. Parenting education programs are then defined and discussed, and include a review of the NHA empirical literature. Subsequent sections address the theories guiding the study, Bandura's (1977) social learning theory (SLT) and Mowder's (2005)

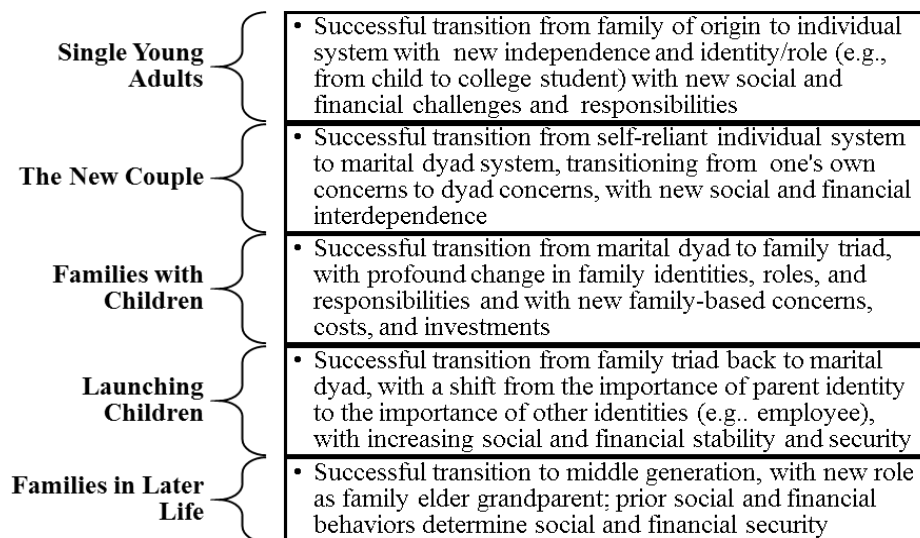
parent development theory (PDT), and study measures. A summary concludes the chapter.

### **Family Life Cycle**

The family life cycle theory was conceived of as a means to understand the progression of changes typical to the nuclear family (Dallos & Draper, 2010; Vick & Nicholas, 2005) to assess the functioning of a family and to identify strengths and weaknesses that exist among family members (Dallos & Draper, 2010; Gavazzi, 2011). The family systems theory posited that (a) relationships among family members are interdependent; (b) families often behave and interact using predictable patterns and follow specific, often implicit, rules; (c) family systems have boundaries that are both open to others outside of the family and closed; and (d) while comprised of sub-systems (e.g., relationships between siblings), the family systems is, above all things, a holistic entity (Boyd-Franklin & Bry, 2012; Carter & McGoldrick, 2005; Gavazzi, 2011; Meyer et al., 2013).

Family systems theory drew upon general systems theory to understand the family and its focus is how the family navigates through the family life cycle and how the structure and functions change with the developments of stressors and natural transitions (Cowan & Hetherington, 2013; Gavazzi, 2011; Petersen, Kruczek, & Shaffner, 2003; Strickland & Samp, 2013). To understand the natural development of the individual within the family, the family life cycle theory classified developmental stages of family transitions (Cowan & Hetherington, 2013; McGoldrick & Carter, 2003; Gavazzi, 2011). It is during the transitional stages that stressors that affect the family are

most likely to occur (Cowan & Hetherington, 2013; Carter & McGoldrick, 2005; Strickland & Samp, 2013; Vick & Nicholas, 2005) (see Figure 1).



*Figure 1.* Family life cycle stages (adapted from Carter & McGoldrick, 1989).

As seen in Figure 1, each life cycle stage involves transitional tasks “framed by ... [the] family’s past, the present ..., and the future to which [one] aspires” (McGoldrick et al., 2011, p. 23). Central to the life cycle framework is the ability of the individual to successfully take on new roles within the family unit, whether it is the role of a spouse or partner, parent, or grandparent (McGoldrick et al., 2011). Considering the constant changes within the family system, the important consideration is the extent to which the family system can be adaptable and supportive, to move through transitions in a healthy manner (Berge, Loth, Hanson, Croll-Lampert, & Neumark-Sztainer, 2012; Cowan & Hetherington, 2013).

The transition of becoming a parent is one of the most challenging within the family life cycle (Cowan & Hetherington, 2013). Certainly most parents love their

children, but taking on the many responsibilities that comes along with being a parent can be chaotic and stressful (Carter, 2005; Smith, 2010). The couples' relationship changes forever with the birth of a child (McGoldrick, Broken Nose, & Potenza, 2005; Strickland & Samp, 2013) and many parents find that conflicts arise regarding parenting due to often differing expectations and ideals based on their own family history, culture, values, etc. (Carter, 2005; Dallos & Draper, 2010; Meyer et al., 2013). The primary role of the parent is to provide a safe and nurturing environment for the physical and emotional growth and development of the child. However, evidence has shown that parents with risk factor for potential child abuse (e.g., parents age 20 or younger, with more than one child, who live in poverty and are poorly education, who have cognitive and/or emotional disabilities and/or drug problems and have little to no social support) often do not have the skills to parent effectively (Evans et al., 2013).

Parenting is recognized as a critical factor in a child's growth and development (Collins, Maccoby, Steinberg, Hetherington, & Bornstein, 2000; Baumrind, 2012). Current parent education programs reflect these beliefs (Hindman et al., 2012; Smith et al., 2010) and evidence from parent education programs, including the Nurtured Heart Approach (NHA) (Brennan & Hektner, 2012a, 2012b; Taperek & Ruoff, 2009), have shown that parents who do not have adequate parenting skills can however benefit from parent education programs. It is important to examine factors in the child and parent that may influence parenting attitudes and behaviors toward their child. These factors are discussed in the following sections.

### **Child Mental Health and Behavioral Issues: Focus on Parenting**

Numerous child, environmental and family/parent factors play a role in the development of child behavioral problems (Baumrind, 1971; Beauchaine et al., 2005; Burt et al, 2005; Caspi et al., 2004; Knafo & Plomin, 2006; Meyer et al., 2013; Thomas & Chess, 1977; Strickland & Samp, 2013; Webster-Stratton & Herbert, 1993). The genetic and intrapersonal factors known to be associated with problem behaviors in children include being male; shy or hostile temperament and impulsive and antisocial personality traits; neurological issues or disorders, such as attention deficit disorder (ADHD), autism, and conduct disorder; and low intelligence and/or cognitive delays or deficits (Chronis et al., 2007; Kilburn, Shapiro & Hardin, 2017; Knafo & Plomin, 2006; Shelleby & Shaw, 2014). On the environmental level, factors associated with negative child behavioral outcomes include high rates of community/neighborhood unemployment, crime, poverty, and population density (Dishion & Stormshak, 2007; Meyer et al., 2013; Rogers & Pilgrim, 2014; Woolley & Grogan-Kaylor, 2006).

An extensive body of empirical work, initiated over 50 years ago, has identified numerous family and/or parenting factors known to adversely affect child mental health outcomes (Dishion & Stormshak, 2007; Duncomb, Havighurst, Holland, & Frankling, 2012; Knafo & Plomin, 2006; Kudo et al., 2012). Using observation, interview, and self-report survey data collection techniques, researchers have linked poor child outcomes to (a) parental substance abuse (Kelley, Lawrence, Milletich, Hollis, & Henson, 2015; Lewis, Holmes, Watkins, & Mathers, 2014); (b) parental mental health issues (Goelman, Zdaniuk, Boyce, Armstrong, & Essex, 2014; van Santvoort, Hosman, van Doesum, & Janssens, 2014) especially maternal depression (Goodman, Rouse,

Connell, Broth, Hall, & Heyward, 2011) and father antisocial behavior (Coley, Carrano, & Lewis-Bizan, 2011); (c) poor parent relationship issues, including family or partner conflict (McCoy, George, Cummings, & Davies, 2013), separation and divorce (Strohschein, 2012; Wallerstein, Lewis, & Packer-Rosenthal, 2013), and domestic violence (Katz & Rigterink, 2012); and (d) poor family cohesion, efficacy, and support (Gibb, Fergusson, Horwood, & Boden, 2015). The research has concluded that the degree of effect that family factors have on child adjustment depends on the severity and number of family risk factors (Evans, Li, & Whipple, 2013; Lösel & Farrington, 2012).

Although there are many factors that influence children's development of behavior problems, according to the literature, parenting is an essential factor in the prevention and treatment of child behavioral problems (Dishion & Stormshak, 2007; Toldson & Lemmons, 2013; Wahl & Metzner, 2012; Walker & Kirby, 2010; Westbrook & Harden, 2010). Toldson and Lemmons (2013) posited that parents could strongly influence the developmental course of behavioral problems in their child or children: they are perceived to be "key players" in their child's development (p. 237). Parents have been shown to act as moderators or buffers against environmental (e.g., school or neighborhood) stressors and risk factors by protecting and/or shielding their children from such stressors using family warmth, support, and care (Beauchaine et al., 2005; Boyd-Franklin & Bry, 2012; West-Olatunji, Sanders, Mehta, & Behar-Horenstein, 2010).

Conversely, parents can act as mediators: parental internalization of and/or poor coping responses to environmental stressors can increase child behavior reacting to negative environmental factors (Smith, Sprengelmeyer, & Moore, 2004; Wahl &

Metzner, 2012; Westbrook & Harden, 2010). Indeed, results from Westbrook and Harden's (2010) study conducted with 60 low-income, high risk African American parents showed that low maternal depression contributed 25% of the variance in the outcome of child social-emotional functioning. Other research has shown that there is a bi-directional, or reciprocal, relationship between the parent and child in the development of child behavioral problems (Abela et al., 2006; Kochanska & Kim, 2011). Moreover, children with "difficult temperaments," that is, children who show genetically-based traits such as emotional lability, restlessness, willfulness, impulsivity, lack of attention/concentration, poor social communication and engagement skills, and/or flat affect are believed to elicit negative parenting attitudes and behaviors (Caspi et al., 2004; Maccoby, 2002).

Since the early 1970s, a plethora of parenting research (e.g., Baumrind, 1971, 1991; Bolkan, Sano, De Costa, Acock, & Day, 2010; Brotman et al., 2008, 2011; Conger & Elder, 1994; Conger et al., 2000; Conger et al., 2002; Dishion & Stormshak, 2007; Shetgiri, Lin, Avila, & Flores, 2012; Slatcher & Trentacosta, 2012) has been devoted to examining specific parent variables that impact – both positively and negatively – child problem behaviors. These factors are (a) parent psychological functioning; (b) parenting styles; and (c) parenting practices (Baumrind, 1991; Bolkan et al., 2010; Brotman, 2008, 2011; Conger et al., 2000, 2002; Dodge, 2011)). A great strength of this body of literature is its applied emphasis: much of the research conducted has been in response to the development or evaluation of parenting interventions.

The body of research has contributed greatly to the "widely available and easily accessible empirically supported parenting interventions" shown to directly influence



parent cognitions, styles, and practices (Brotman et al., 2011, p. 259). Brotman et al. (2011) conducted an evaluation study of a parent-child intervention, *ParentCorps*, aimed at providing skills for parents to reduce their child problem behavior both in school and at home, conducted with 171 urban and low-income parents and their four-year-old children. Parents, in working with trained counselors, demonstrated more positive cognitions and attitudes about parenting and child-rearing and were more likely to demonstrate authoritative (i.e., high structure and control coupled with love and caring) parenting styles and practices (Brotman et al., 2011). Children of parents whose negative cognitions about parenting decreased and whose authoritative parenting practices increased demonstrated reduced behavioral problems, both at home and in the preschool setting (Brotman et al., 2011).

### **Parent Psychological Functioning**

Parent psychological functioning has been defined as an ability among parents to maintain a sense of positivity and efficacy about their ability to parent while also having the capacity to manage parenting-related stress being able to reduce their distress and subsequent controlling behaviors (e.g., arguing with the child, shaming the child) that can result from being a parent (Dodge, 2011). Researchers have consistently found parent psychological functioning is influenced by personal (e.g., temperament, personality traits) and contextual (e.g., socioeconomic situation, neighborhood residence) variables (Dodge, 2011; Jesse, Mangelsdorf, & Wong, 2012; Wahl & Metzger, 2012; Westbrook & Harden, 2010).

Conger and colleagues (e.g., Conger & Elder, 1994; Conger, Rueter, & Conger, 2000; Conger et al., 2002) are known in the field of parenting research for their family

stress model and the seminal research that grew from that model. Conger and Elder's body of research was established as part of the Iowa Youth and Family Project, which was initiated in the late 1980s. Through the Iowa Youth and Family Project, Conger and colleagues (e.g., Conger & Elder, 1994; Conger, Rueter, & Conger, 2000; Conger et al., 2002) conducted both cross-sectional and longitudinal research with over 1,000 families (i.e., parents and their elementary to middle-school-aged children) living in the rural mid-west of the United States. The economic circumstances of the late 1980s wherein the family farm could no longer adequately financially support families provided, unfortunately, an ideal environment to test the family stress model.

The voluminous amount of research that has tested the family stress model over the past 20 years has consistently supported its validation. That is, poverty has been shown to be a key factor in influencing spousal relationships, ultimately leading to parent depression, which in turn leads to family dysfunction, poor parenting, and poor child outcomes (Conger et al., 2000, 2002; Conger & Elder, 1994). Conger and Elder's first (1994) study, conducted with 236 families and which used latent growth curve modeling as the statistical analysis, showed that increased financial stress, measured using an income-to-needs ratio based on family income, predicted increased spousal problems, as assessed by the Dyadic Adjustment Scale (Spanier, 1976), completed by parents. Increased spousal problems led to parent depression, as measured by the Symptoms Checklist (Derogatis, 1983) that led to higher rates of emotional and behavioral problems, as indicated by scores on the SCL-90-R (Derogatis, 1983) among the children of these parents. Conger et al.'s (1994) study conducted with 451 parents and their adolescent children, showed similar findings, as did Conger et al.'s (2000,

2002) later longitudinal studies conducted with over 1,000 families. As documented in the work by Conger and colleagues (Conger et al., 1994, 2000, 2002; Conger & Elder, 1994), mediators exist between financial stress and parent psychological functioning variables to influence child psychological functioning (Beauchaine et al., 2005). Conger and Elder (1994) for example, found that depression was a significant mediator between increased spousal problems and child emotional and behavioral problems.

**Parent depression.** Parent depression has received much attention in the child development literature, and study results have documented that not only is it a strong predictor of child maladaptive outcomes, it influences and is influenced by other parent and child variables, which in turn influence child outcomes (Jessee et al., 2011; Long et al., 2001; Westbrook & Harden, 2010). Parental depression has been consistently directly linked to negative parenting cognitions, including perceptions of poor parent self-efficacy, and poor parenting behaviors (Forehand, Thigpen, Parent, Hardcastle, Bettis, & Compas, 2012; Jessee et al., 2011; Long et al., 2001; Westbrook & Harden, 2010). Parent depression has also been directly linked to poor child outcomes. Using hierarchical multiple linear regression techniques, Jessee et al. (2011) found that higher levels of parental depression led to increased child depressive symptomatology and emotional lability in children prone to depression.

Parental depression has furthermore been indirectly linked to poor child outcomes by the mediator of parent warmth. Westbrook and Harden (2010) conducted research with a national sample of 2,790 families with preschool-aged children who participated in the Family and Child Experiences Study in the 2000s. They assessed parent depression using the Center for Epidemiological Studies-Depression (CES-D)

scale (Radloff, 1977), parental warmth was measured using the Child-Rearing Practices Report (CRRP; Block, 1965), and child emotional problems were assessed using the Child Behavior Checklist for Preschool-Aged Children: Teacher Report (CBCL; Achenbach, Edelbrock, & Howell, 1987). Using structural equation modeling, the researchers found that parent depression directly led to decreased parental warmth, which in turn predicted increased child emotional problems.

Intervention studies (Forehand et al., 2011; Smith, Cumming, & Xeros-Constantinides, 2010), however, have shown promising results with regard to the reduction of parenting stress, which in turn has led to reduced emotional and behavioral problems in children. Forehand et al. (2011) examined the efficacy of a parenting stress reduction intervention by comparing post-intervention effects between 20 parent-child dyads who participated in the intervention and 19 dyads in the wait-list comparison group. There were significant parental depression differences post-intervention, with program parents reporting lower levels of depression than wait-list parents (Forehand et al., 2012). Moreover, lower levels of parental depression were associated with increased parental efficacy and reduced emotional and behavioral problems in their children, as reported by the parents, but only for those parents who received the parenting stress reduction training (Forehand et al., 2012).

**Parenting confidence.** Parenting stress, as well as parent depression, can influence the level of confidence related to parenting. Scholars have argued that differences exist with regard to parenting confidence and parenting competence (Dennis, Neece, & Fenning, 2017; Vance & Brandon, 2017). Parenting confidence is strongly related to parents' sense of self-efficacy and self-esteem regarding their parenting

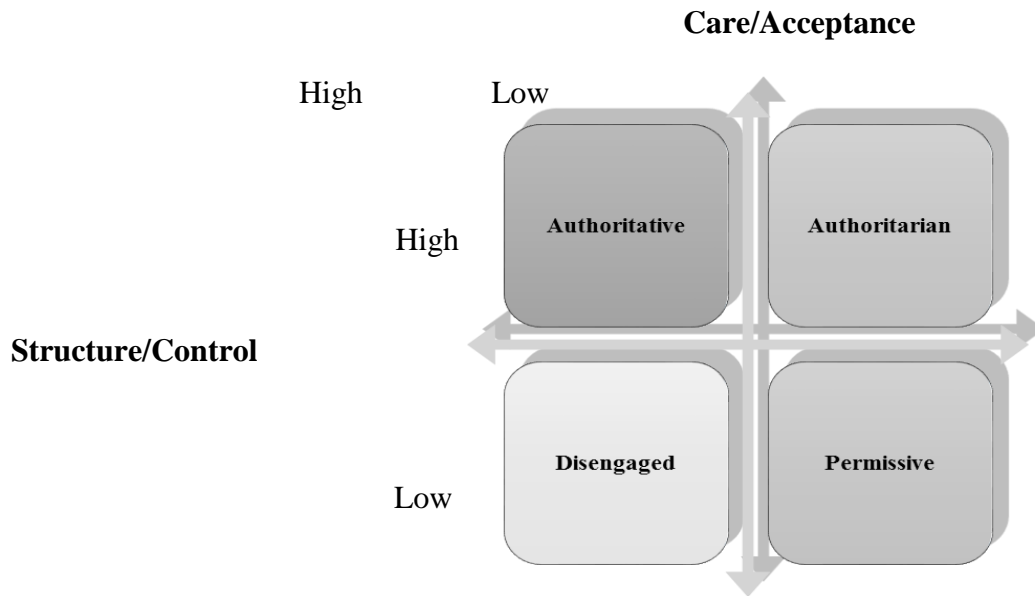
abilities (Dennis et al., 2017; Vance & Brandon, 2017). In contrast, parenting competence is viewed as a more objective measure made by someone other than the parent that concerns the observed quality of parenting behaviors (Dennis et al., 2017; Vance & Brandon, 2017). Parents who choose voluntarily to attend parenting education generally feel that their parenting confidence is low (Abela et al., 2006; Hindman et al., 2012; Pehrson & Robinson, 1990; Smith, 2010; Westbrook & Harden, 2010), which negatively impacts their parenting and their children's behavior. Indeed, Smith (2010) reported that parenting programs that include a component related to building parents' confidence are more effective.

Parenting confidence may also overlap conceptually with parenting attachment and mindfulness (Christl, Reilly, Yin, & Austin, 2015; Siu, Ma, & Chiu, 2016; Smith et al., 2017). Siu et al. (2016), in a study conducted with 216 Chinese parents of preschool-age children, found that parenting confidence was highly associated with parenting attachment,  $r = .77, p < .01$ , and, moreover, that mindfulness was significantly predictive of parenting confidence to the degree ( $\beta = .90, p < .001$ ) that these two constructs showed multicollinearity. Pertinent to this study, Siu et al. (2016) also found that parenting confidence was significantly predictive of parents' perceptions of their child's prosocial behaviors ( $\beta = .17, p < .01$ ).

### **Parenting Styles**

The influence of parenting style on child outcomes has received significant theoretical and research attention since the late 1960s. In Baumrind's (1966) seminal work, she proposed a parenting style classification model based on the parental factors of acceptance and control. Baumrind's (1966) definition of acceptance was parental

warmth, care, love, support, and responsiveness whereas her definition of control was parental structure, supervision, and expectations to follow family rules (Baumrind, 1966).



*Figure 2.* Baumrind's (1966) parenting styles (not copyrighted).

Using the constructs of acceptance and control, Baumrind (1966) proposed specific parenting styles. Parents with low control and high acceptance have a permissive parenting style (Baumrind, 1966). Parents with low control and low acceptance have a disengaged parenting style (Baumrind, 1966). Parents who have high control and low acceptance have an authoritarian parenting style (Baumrind, 1966). Finally, parents who have high acceptance and high control have an authoritative parenting style (Baumrind, 1966).

There has been substantial research on the child outcomes that result from specific parenting styles (Alizadeh, Talib, Abdullah, & Mansor, 2011; Baumrind, 1991;

Baumrind, 2012; Pellerin, 2005; Saucedo, 2010; Scaffers et al., 2009). Parents who are permissive display high levels of acceptance but low levels of control (Baumrind, 1966, 1991, 2012). As such, these types of parents – while displaying warmth and care -- often have minimal expectations of their child and set few limits on their child's behavior (Baumrind, 1991; Saucedo, 2010). These parents often state that they are friends with their children (Saucedo, 2010). Because permissive parents are so child-centered, their children learn to become self-centered and selfish themselves and may not develop a strong sense of empathy and care for others (Scott et al., 2010; Schaffer et al., 2009). The lack of limits set for children of permissive parents often lead these children to feel that they have little responsibility for their actions, which makes them more likely to be attracted to socially deviant behavior (Alizadeh et al., 2011; Pellerin, 2005; Schaffer et al., 2009). These children are also at risk for developing hyperactive and aggressive behaviors (Meteyer & Jenkins, 2009; Saucedo, 2010; Scott et al., 2010).

The parent who displays a disengaged parenting style shows both low acceptance and low control (Baumrind, 1966, 1991). These parents are often defined as neglectful parents (Scott et al., 2010). Children of disengaged parents demonstrate the poorest outcomes with regard to social interactions with peers, self-esteem and self-confidence, and academics in comparison to children of permissive, authoritarian, and authoritative parents (Carlo et al., 2007; Meyeteer & Jenkins, 2009; Saucedo, 2010). Children of disengaged parents have a high likelihood of deviant and delinquent behavior, especially during adolescence (Saucedo, 2010; Scott et al., 2010; Washington & Dunham, 2011).

Parents with little acceptance but high control of their child are defined as authoritarian parents (Baumrind, 1966, 1991, 2012). These parents place extremely high

demands and expectations on their children: they expect obedience from their children (Grusec, 2012). They display little praise or caring for their children (Grusec, 2012). As a result of modeling parents' behavior, children of parents with authoritarian parenting styles often cope with frustration and stressors in an aggressive manner; as such, these children are at risk for developing externalizing behaviors (Alizadeh et al., 2011; McKee et al., 2008; Schaffer et al., 2009). Moreover, the lack of parent warmth coupled with high control can often result in conduct problems (Baumrind, 2012; Grusec, 2012; McKee et al., 2008).

Research, however, has shown that authoritarian parenting style is not only more prevalent in African American parents but also that it is associated with different outcomes in African American as opposed to White children (Deutsch, Crockett, Wolff, & Russell, 2012; Hill, 2006; Hines & Holcomb-McCoy, 2013; Smetana, 2011). Deutsch (2012) posited that African American parents are more likely to engage in authoritarian parenting behaviors due to their “cultural values and unique experiences as an ethnic minority group in the United States” (p. 1079). African American parents often place great value on obedience and discipline in their children, as these factors may help their children to deal with societal stressors, such as racism (Hill, 2006; Smetana, 2011). It may be that the “proactive” parenting behavior -- wherein the parent prepares the child for a society that is at times hostile to ethnic minorities – is the reason as to why African American children realize benefits from the authoritarian parenting style (Deutsch et al., 2012; Hill, 2006).

The combination of high acceptance and high control was defined as the authoritative parenting style (Baumrind, 1966, 1991, 2012). Parents having an



authoritative parenting style place high but realistic expectations on their children but also display high levels of support, warmth, and caring (Carlo et al., 2007; Darling & Steinberg, 1993). The authoritative parenting style produces the best benefits for child outcomes in comparison to the other parenting styles. The authoritative parenting style offers numerous benefits to children: these children tend to be more socially responsive, have high levels of empathy, are appropriately assertiveness without being aggression, and show self-regulation (Saucedo, 2010; Schaffer, et al. 2009).

### **Parent and child influences on parenting styles and child outcomes.**

Research on parenting styles has tended to examine maternal parenting styles (Saucedo, 2010). Other research (Berkien, Louwerse, Verhulst, & van der Ende, 2012; Bolkan, de Costa, Acock, & Day, 2010), however, has found that dissimilar parenting style between mothers and fathers often results in more problematic behavior problems in children. Berkien et al. (2012) conducted a study with 658 Dutch children who were participating in a university-based longitudinal study comprised of over 1,710 families with children ages 6 to 18. Using multiple linear regression analyses, Berkien et al. (2012) found different associations between specific parenting styles of parents, using the Coparenting and Family Rating System (CFRS; McHale, 1995), and child externalizing behavior, using a Dutch version of Child Behavior Checklist (CBCL; Achenbach et al., 1987). Specifically, children who had one parent who displayed high warmth and one parent who displayed low warmth had higher levels of externalizing behavior than did children whose parents both displayed high warmth. A similar result emerged in regard to dissimilarities in parental control in a study by Bolkan et al. (2010) who used National Longitudinal Survey of Youth data on 3,353 youth, ages 12 to 16. In this study,

externalizing behavior and parenting style were measured using the scales created for the national survey, which were completed by parents. Analyses were conducted using structural equation modeling. Results of Bolkan et al.'s (2010) study showed that youth who had an authoritarian mother but a father who was authoritative or permissive showed significant externalizing behaviors.

Child gender also interacts with parenting styles to influence child outcomes (Hastings, McShane, Parkter, & Labha, 2007). Hastings et al. (2007), in a study with over 100 preschool children and their mothers who were recruited locally from a community in Midwest America, examined how parenting styles resulted in differing outcomes for boys and girls. Parenting style was measured using the Child-Rearing Practices Report (CRPR; Block, 1981) and child prosocial behavior was measured by the Child Behavior Vignettes assessment tool (CBV; Mills & Rubin, 1990). Parents answered both surveys. Results from a multiple linear regression showed that maternal authoritative parenting related to more prosocial behavior in girls, but more confrontational behavior in boys, over and above parent and child demographic factors (Hastings et al., 2007). Karreman et al. (2009) conducted a similar study with 72 Dutch children, who were three years of age, and their mothers, who were participating in a larger university-based study on preschool children's behaviors. Externalizing behavior was measured using a Dutch version of the Strengths and Difficulties Questionnaire (SDQ; Goodman, 1997) and parenting style was assessed using observation using the Coparenting and Family Rating System (CFRS; McHale, 1995). Using multiple linear regression, Karreman et al. (2009) found that higher maternal control was related to fewer externalizing behaviors in girls, but higher externalizing behaviors in boys, over

and above demographic covariates of the parents and child. Karreman et al. (2009) also found that maternal permissive parenting was associated with increased externalizing behavior in boys, but not for girls.

Tung et al. (2012), however, found differing results in a study conducted with 179 5- to 10-year-old children and their mothers recruited specifically for their study. In Tung et al.'s (2012) study, child externalizing behavior was measured using the Child Behavior Checklist (CBCL; Achenbach et al., 1987) and parenting style was measured using the Alabama Parenting Questionnaire (APQ; Shelton et al., 1996), both of which were completed by the mothers. Tung et al. (2012) using multiple linear regression, found that authoritarian parenting style predicted higher levels of conduct problems for boys but not girls. Authoritarian parent style was the only significant predictor of conduct problem for girls; variables of maternal age, ethnicity, child ADHD, and inconsistent discipline from mothers did not significantly influence conduct problems for girls.

### **Parenting Practices**

Parenting practices are defined as specific parenting behaviors and beliefs that parents use to socialize their children (Darling & Steinberg, 1993). The two most common parent practices pertinent to younger children are parent discipline practices and parental goals, values, and aspirations for their children (Darling & Steinberg, 1993). Parenting practices that have shown to be related to child problem behaviors are harsh and/or inconsistent discipline practices (Wahl & Metzner, 2012). These discipline practices overlap with parenting styles -- they are components of parenting styles -- as well as parent psychological functioning (Wahl & Metzner, 2012). Research has

indicated that parents of children with conduct problems may be more likely use harsh and/or inconsistent discipline and controlling behavior (Duncombe et al., 2012; Wahl & Metzner, 2012; Toldson & Lemmons, 2013). Duncombe et al. (2012) conducted a study on parenting practices with 373 Australian 5- to 9-year-old children and their parents who were participating in a university-based early intervention program. In this study, child disruptive problems was measured using the Eyberg Child Behavior Inventory (Eyberg & Robinson, 1983) and parenting style was assessed using the Alabama Parenting Questionnaire (APQ; Shelton et al., 1996), both answered by mothers. Results from a hierarchical multiple linear regression analysis showed that three parenting practices -- inconsistent discipline, negative emotional expressiveness, and parent mental health -- were the most predictive factors of child disruptive problem behaviors (Duncombe et al., 2012).

Wahl and Metzner (2012) examined parental influences on child aggression in a study with over 2,000 German parents and their children, ages 5 to 17, who were participants in a national study on children conducted by the German Youth Institute. Child aggression was measured using the Child Behavior Checklist (CBCL; Achenbach et al., 1987), while parenting practices were assessed using a scale developed by the German Youth Institute. Results from a step-wise multiple linear regression showed that children whose parents harshly disciplined them displayed high levels of aggressive behaviors; indeed, harsh parental discipline explained 27% of the variance in child aggressive behaviors (Wahl & Metzner, 2012). Lansford et al. (2010), in a study with 562 parents and their 6- to 9-year-old child who were participating in a university-based longitudinal study on parenting, found similar results to Wahl and Metzner (2012).

Child aggression was measured using the Child Behavior Checklist (CBCL; Achenbach et al., 1987), which was completed by the child's teacher, whereas parental discipline practices were measured using questions asked as part of the home interview with parents. Lansford et al. (2010) using multiple linear regression analyses, found that parental discipline had short term -- but not long term -- effects on child aggressive behavior.

There is substantial research evidence that expectations held about a child will likely produce child outcomes consistent with those expectations (Rutchik, Smyth, Lopoo, & Dusek, 2009). While considerable research (e.g., Catsambis, 2001; Fan & Chen, 2001; Jacobs, Davis-Kean, Bleeker, Eccles, & Malachuk, 2005) has examined and provided evidence that has linked parental academic goals and aspirations to children's academic outcomes, there has been less of a focus in research examining parental goals and aspirations in relation to child behavior outcomes. Most of the research conducted that has examined this association has focused on parent involvement. El Nokali, Bachman, and Votruba-Drzal (2010), utilizing The Study of Early Childcare and Youth Development data on over 1300 children and the parents, examined the role that parent involvement with their child's teacher, as measured by the Parent-Teacher Involvement Questionnaire (Miller-Johnson et al., 1995), played in reducing child aggression, as measured by the Child Behavior Checklist (CBCL; Achenbach et al., 1987), completed by parents. El Nokali et al. (2010) found, using multiple linear regression that high parent involvement with their child's teacher was associated with lower levels of aggressive behaviors and improved social skills in children, over and above teacher experience and classroom quality, which were also significant predictors.

Similar results were found in the work by Rutchik, Smyth, Lopoo, and Dusek (2009) who utilized data from the Panel Study of Income Dynamics (1999) collected on 884 elementary-school-aged children and their parents. Child externalizing behavior was measured using the Behavior Problems Index (Peterson & Zill, 1986), answered by parents. Parent expectations about their children's educational achievement and their educational involvement were measured using a parental expectations and educational involvement scale created by the authors. Rutchik et al. (2009) conducted a mediational analyses to support the hypothesis that aggressive child behavior predicted lowered parental educational expectations for the child, which in turn predicted both reduced parental involvement and increased child aggressive behavior two years later (Rutchik et al., 2009). Rutchik et al.'s (2009) hypotheses were supported using mediational analyses for linear regression. The results from Rutchik et al. (2009) highlight the importance of interactional influences between the child and parent.

### **Parent-Child Interactional Influences**

There is a bi-directional or reciprocal relationship between the parent and child in the development of child behavioral problems (Abela et al., 2006; Saucedo, 2010). A child with a difficult temperament is oftentimes more likely to elicit negative parenting attitudes and behaviors, which in turn influences the child's negative attitudes and behaviors (Darling & Steinberg, 1993). For example, Combs-Ronto, Olson, Lunkenheimer, and Sameroff (2009) examined the bi-directional nature between maternal negativity, measured as on observed behavior by the researchers, and child externalizing behavior, measured by the Child Behavior Checklist (CBCL; Achenbach et al., 1987). The researchers conducted a longitudinal study with 235 mothers and their

preschool-aged children who were participants in a university-based longitudinal research study. Based on multiple linear regression analyses, results from Combs-Ronto's et al. (2009) study showed that maternal negativity predicted increased levels of child aggression, and that this relationship interacted and resulted in both increased maternal negativity, and child aggression at the end of two years, when the children were in primary school.

A 3-year longitudinal study by Carrasco, Holgado, Rodriguez, and del Barrio (2009) conducted with 523 Spanish parents and their children, who were 11 years of age when the study started, found similar results. An additional contribution of Carrasco et al.'s (2009) study was that, while child aggression was measured using a Spanish language Child Behavior Checklist (CBCL; Achenbach et al., 1987), as the children were old enough to complete surveys, they reported on their parents hostility using the Child's Report of Parental Behavior Inventory (CRPBI; Schaefer, 1965) adapted to Spanish. Using correlational analysis in this study, Carrasco et al. (2009) found that both mothers' and fathers' hostility predicted increased aggression while the children were eleven, which in turn predicted increased hostility when the children were twelve. This bi-directional relationship was statistically significant over the three years of the study. Parents may also assume that their child is the problem, which may affect parent-child attachment (Sroufe, 2002; Gavazzi, 2011; Kochanska & Kim, 2012). Kochanska and Kim (2012) conducted two longitudinal studies examining the interactional processes between parent and children. The participants in their studies were two community-based samples of 102 and 105 families and their infants, ages 15 months, respectively, who resided in Midwest America (Kochanska & Kim, 2012). Kochanska

and Kim (2012) measured parent-child attachment, parent's power-assertive behavior, and child antisocial behavior using complex observational and interview methods. Using structural equation modeling to test a mediational model, Kochanska and Kim (2012) found in their first study that insecure infant attachment at 15 months predicted increased child anger at 38 months, which led to increased power-assertive behaviors in both mothers and fathers at 38 months and at 52 months. This increased power-assertive behavior on the part of parents then predicted increased rule violations made by the children at 80 months. In their second study, Kochanska and Kim (2012), again using structural equation modeling, found that children's anger at 38 months predicted mother's (but not fathers') power assertive behavior when the child was age 52 months. Results from Kochanska and Kim's (2012) study suggested that dysfunctional parent-child interactions may impact child functioning from infancy to at least 6 years of age, and that mothers' behaviors may be more of an influencing factor than fathers' behavior.

The stigma that many parents feel regarding their children's disruptive behavior can affect many aspects of their lives (Darling & Steinberg, 1993; Baumrind, 2012). Mothers whose children act out often feel devalued because of their perception that society expects parents to control their children (Linville et al., 2010; Scott et al., 2010). For instance, school faculty may place the blame for children's problems on the parents (Brotman et al., 2008, 2011; O'Sullivan & Russel, 2006; Toldson & Lemons, 2013). Stigma results when individuals perceive themselves as different from others and perceive themselves as inferior in their differences (Grusec, 2012). Parents often feel this blame and stigma whether they experience overt signals from society or not (Fernandez & Arcia, 2004).



Many parents accept this blame and feel responsible when their children misbehave, which may cause them to feel low confidence as parents (Pehrson & Robinson, 1990). Pehrson and Robinson (1990) conducted a study examining a parenting program that included a focus on parents' feelings of confidence and competency, as well as the concept that—while parents should teach and guide children to make good choices—they are not ultimately responsible for their children's actions. The study was a pre-post treatment design, conducted with 72 parents randomly assigned to an experimental or control group (38 parents per group). Using a *t*-test, Pehrson and Robinson (1990) found that parents in the experimental group reported higher levels of responsibility for their child than did parents in the control group.

Research has shown that children and children's problem behaviors can be differentially influenced by parents' parenting styles (e.g., Karreman et al., 2009; Tung et al., 2012) and by differing parent styles used by mothers versus fathers (e.g., Berkien et al., 2012; Bolkan et al., 2010). Empirical studies have furthermore shown that children's problem behaviors can be reduced by higher parent involvement with teachers (e.g., El Nokali et al., 2010) and can be increased as a result of lowered parental expectations for child academic success (Combs-Ronto et al., 2009). A consistent finding in the literature has been that children who exhibit conduct problems may be more likely to have parents who use harsh and/or inconsistent discipline and controlling behavior (Duncombe et al., 2012; Wahl & Metzner, 2012; Toldson & Lemmons, 2013). Parents who have children with aggressive behaviors, especially parents who are at risk for using harsh and inconsistent parenting behaviors, can benefit from participation in parent education programs that teach parents how to effectively respond to the child's

problem behaviors (Brotman et al., 2009, 2011; Duncombe et al., 2012; Smetana, 2011; Smith et al., 2010).

### **Parenting Education**

Parenting can be satisfying and provide to parents a sense of accomplishment; it can also be very challenging and stressful, especially for parents who lack adequate parenting skills and practices (Kudo, Longhofer, & Floersch, 2012; Lovejoy, Lundahl, & Risser, 2006); Strickland & Samp, 2013; Washington & Dunham, 2011). Programs that educate and empower parents to become the change agents in their children lives can greatly benefit both the parent and the child (Brotman et al., 2009, 2011; Duncombe et al., 2012; Smetana, 2011; Smith et al., 2010; Thorell, 2009). There have been numerous parent education programs that have been developed since the early 1970s, and as of 2009, there were approximately 50,000 parent education programs that focused on early childhood alone in the United States (McGroder & Hyra, 2009).

According to Croake and Glover (1977) parenting education is “the purposive learning activity of parents who are attempting to change their method of interaction with their children for the purpose of encouraging positive behavior change in their children” (p. 151). Pehrson and Robinson (1990) defined parenting education as a “conscious goal-directing learning activity undertaken by parents in an effort to (a) improve the quality of the parent-child interaction and (b) effect positive change in the behavior of both parent and child” (p. 221). In its inception, the focus of parenting education was solely on parental factors such as parenting styles (Croake & Glover, 1977, Ginott, 1965; Rinn & Markle, 1977). In the 2010s, it is acknowledged that numerous child factors – resulting from genetics, temperament, or cognitive abilities --

are important to how the child will experience his or her world; however, parenting is still recognized as a critical factor in a child's growth and development (Collins, Maccoby, Steinberg, Hetherington, & Bornstein, 2000; Baumrind, 2012). Current parent education programs reflect these beliefs (Hindman et al., 2012; Smith et al., 2010).

Parent education programs provide to parents supportive learning of new parenting knowledge and skills, which often positively influence parenting attitudes (Hindman et al., 2012; Thomas, 1996; Smith et al., 2010). The effectiveness of parent education programs are due in part from their success in motivating changes in parents' negative perceptions of their child; increasing positive and healthy parent-child communication; and to inspiring constructive and affirming parenting behavior to effect desirable changes in child behavior (Bloomfield & Kendall, 2012; Hindman et al., 2012; Lundahl, Risser, & Lovejoy, 2006). In addition, effective parent education programs include program components that instruct parents on the principles of child development, address parenting issues that parents are experiencing, and provide social supports and activities to build parenting confidence and self-efficacy (Bloomfield & Kendall, 2012; Dishion & Stormshak, 2007; Hindman et al., 2012; Smith et al., 2010).

Despite a few conflicting reports on the effectiveness of parent training programs, research (e.g., Boyd-Franklin & Bry, 2012; Faith et al., 2012; Reedtz et al., 2010; Toldson & Lemmons, 2013) has highlighted the importance and value of educating parents to be change agents in their child's lives. Children's behaviors are first developed and manifested within the family context, therefore this should be the focus of interventions for parents and children (Berkowitz & Graziano, 1972; Dishion & Stormshak, 2007; Dodge, 2011; Thomas & Lien, 2009). Research (e.g., Duncombe et

al., 2012; Linville et al., 2011; McKee et al., 2008; Scott et al., 2010) has indicated that parenting is the key factor in the development, maintenance, and treatment of child behavioral problems. In addition, parents can act as mediators and strongly influence the developmental course of behavioral problems in children (Smith et al., 2004; Wahl & Metzner, 2012; Westbrook & Harden, 2010). However, there are no course requirements to become a parent, and the majority of parents receive little or no formal or informal parenting education (Carr & Pike, 2012; Darling & Steinberg, 1993; Saucedo, 2010). This lack of parenting education may have contributed to many of the child behavioral problems experienced in the 2010s (Dodge, 2011; Strickland & Samp, 2013).

Considerable evidence suggests that parents are interested in parent education programs (Barlow & Stewart-Brown, 2000, 2001; Dishion & Stormshak, 2007; Hindman et al., 2012; Kudo et al., 2012). In their seminal study, Hicks and Williams (1981) suggested there should be government-funded parent education programs and incentives for all parents to attend these programs. However, thirty years after the study by Hicks and Williams (1981), the only government programs that offer parenting education programs are through child protective services or for targeted populations, such as Head Start for a low-income population. Hahlweg et al. (2010) posited that, although government-authorized and mandatory parent education programs will never exist in the United States, there is a need to increase national awareness on the unique stressors of parenting, the efficacy of parenting education programs in helping to reduce these stressors, and the benefits that parents, especially those at risk for abusing their children, may receive through such education.

## **Development of Parenting Education**

Although it has become more popular in recent years, parenting education is not a new concept (Sunderland, 2016). As early as the 1600s, physicians and philosophers such as Locke and Rousseau began to discuss child rearing to respond to increased anxiety over the question of how to raise a child (Sherrets, Authier & Tramontana, 1980). In 1815, the first recorded parenting education group met in Portland, Maine, for the purpose of sharing experiences and discussing the difficulties of raising children (Sherrets et al., 1980). Many were concerned with the religious aspects of raising obedient children. Parenting education became valuable in part because young couples started moving further away from their families and were no longer able to seek advice from their mothers; new parents were on their own to learn the job (Grant, 1998; Sherrets et al., 1980).

In 1888, the Society for the Study of Child Nature, a secular association, was founded as a small child study group by five mothers (Croake & Glover, 1977). This society hosted parent education programs where mothers would share, discuss, and learn better child-rearing practices; mothers were encouraged to keep journals about their children for scientific purposes (Croake & Glover, 1977). In 1908, with chapters growing across the United States, the society was renamed to the Federation for Child Study, which became a national governing agency overseeing the numerous chapters emerging across the United States, with chapters in New York City, Baltimore, Cincinnati, Louisville, Boston, Chicago, New Haven, and New Orleans (Croake & Glover, 1977). Although the society started with only mother as members, it grew in the 1910s to include social workers and nurses (Croake & Glover, 1977). The association

became nationally recognized in the early 1920s, and in 1923, it received substantial financial support from the Laura Spelman Rockefeller Memorial foundation, allowing the society to launch the *Child Study* journal (Croake & Glover, 1977). In the mid through late 1920s, it became increasingly evident for the need of leaders trained in child development; resultantly, Teacher's College of Columbia University partnered with the society to conduct yearly training institutes for child development specialists, and professionals and nonprofessionals organized various parent education trainings across the nation (Croake & Glover, 1977). The society hosted the first nation-wide conference on parenthood in 1926, and throughout the 1960s and 1970s, offered education and training workshops to child care professionals (Hulbert, 2011). This organization is still active today, known as the Child Study Association of America, and is affiliated with the elite Bank Street College in New York City (Hulbert, 2011).

Historically, mothers have been the primary caregivers; the induction of fathers into the process of parenting came only well into the 1900s (Grant, 1998; Hulbert, 2011). In fact, one of the limitations of the current state of parenting research is its focus on mothers; parenting, in much of the literature, may be more accurately described as mothering (Gaumon & Paquette, 2013; Smith, 2010). Research conducted in the 1970s and 1980s suggested that including fathers in parenting education was not necessary (Firestone, Kelly, & Fike, 1980; Hulbert, 2011; Sherrets et al., 1980). Indeed, in discussing the results of a parent education program attended by both mothers and fathers, Firestone et al. (1980) concluded that fathers' participation in the education program was not necessary, as "mothers do all the work with the child" (p. 46). In the 2010s, the current suggestion is that they should be encouraged to participate, even

though the research is very mixed and unclear about whether there is any significant difference between programs that include and exclude fathers (Gaumon & Paquette, 2013; Lovejoy, Lundahl, Risser, & Tollefson, 2008). Gender differences in parenting struggles may exist (Hulbert, 2011). Mothers, in particular, have a difficult time balancing their various roles, which often results in low self-esteem, which, in turn, affects their parenting (Bloomfield & Kendall, 2012; Gnomes-Pedro, 2002).

In 2009, researchers from the CDC (e.g., Besser, Falk, Arias, & Hammond, 2009) conducted research investigating parenting education programs. Instead of promoting most effective programs, they concluded that there were common factors present in the most effective parenting programs (Besser et al, 2009). Moreover, rather than recommending one program over another, or itemizing effective or best practices programming, the CDC researchers pointed to various effective components that might be relevant for choosing or creating a parenting program, or for current programming to improve (Besser et al., 2009). They reported that, “any particular program might not be the best possible combination of components to produce maximum results” (Besser et al., 2009, p. 7).

In the study by CDC researchers, the common factors were based on parents acquiring skills and behaviors and children decreasing externalizing behaviors (Besser et al., 2009). In the category of parents learning new skills and behaviors, the common factors included parents learning of emotional communication skills and positive parent-child interaction skills, both of which showed effectiveness in increasing positive child behaviors and reducing negative child behaviors (Besser et al., 2009). The parenting skills and interactions that were especially effective included parents learning to

demonstrate positive attention and reinforcement when their child engaged in positive behavior, and actively engaging in activities with their children (Besser et al., 2009).

These activities tended to enhance the bond between the parent and the child, increased the likelihood of child cooperation, and promoted child esteem (Besser et al., 2009).

### **Categories of Parent Education Programs**

With numerous informal parenting education programs and over 35 recognized formal parenting education programs (Fine, 2014), it is not surprising that there are numerous approaches taken in parenting education programs. The primary categories of parent programs are (a) the universal approach, which is directed to all parents not just those at risk; (b) school curricula, which focus on the prevention of poor parenting behaviors; (c) behavioral-based programs, which are guided by behaviorist and social cognitive theory; and (d) group-parenting education approaches (Fine, 2014). The primary type of parent education for parents with children who display problem behaviors are relationship-enhancement approaches, which are aimed at attachment issues between the parent and child (Fine, 2014). These programs are discussed in the following sections.

**Universal approach.** The universal approach to parenting education is directed toward all parents rather than at-risk, targeted populations (Simkiss et al., 2010).

Considering the high rates of suboptimal parenting across the general population (Waylen, Stallard, & Stewart-Brown, 2008), the universal approach has the potential to improve parenting across a wider spectrum of the general population rather than strictly the high-risk population (Simkiss et al., 2010; Spoth, Kavanagh, & Dishion, 2002). The universal approach would provide preventative parenting programs for all parents, thereby reducing the degree of stigma related to mental health and parenting programs



(Sanders, Cann, & Markie-Dadds, 2003; Simkiss et al., 2010). Paterson et al. (2002) has suggested that some parents may not avail themselves of the offered universal parenting education, but proposed that the majority of parents would, particularly those parents experiencing parenting difficulties.

**School curricula.** Closely aligned with the proposition of a universal approach, Bortolotti and Cutas (2009) proposed compulsory school curricula focused on reproductive and parenting education so that individuals can acquire the tools to make autonomous informed decisions that affect the course of their lives. They argued that non-biological parents have to go to great lengths to prove worthy of adopting a child, but there are no requirements for biological parents to care for their children (Bortolotti & Cutas, 2009). Bortolotti and Cutas (2009) also argued that the well-being of children is critical enough to warrant some degree of invasiveness, similar to that experienced by non-biological parents. The fact is that the ability to conceive a child does not assure an innate sense of how to be a good parent. The choice to become a parent should be made with the understanding that it is a long-term, complex contract with serious responsibility and obligations (Bortolotti & Cutas, 2009).

**Behavioral approaches.** Behavioral approaches are reportedly the most powerful; they have been more thoroughly investigated than any other approach (Sanders, Markie-Dadds, Tully, & Bor, 2000). In addition, there is more empirical evidence for behavioral approaches than for any other approach (Sanders & Ralph, 2004). Cognitive behavioral parenting interventions have shown effectiveness, including more consistent discipline and positive reinforcement for good behavior, reduced harsh and punitive parenting, and more supportive interactions (Gardner,

Burton, & Klimes, 2006). Relationship-enhancement approaches are focused on the relationship between parent and child and are concerned with the emotional needs of parent and child. Programs based on Dreikurs, Gordon and Ginott are relationship-enhancement models (Parenting Education, 2003). Though behavioral approaches regarding dealing with children's misbehavior are effective, parents are also concerned about and interested in feelings and the parent-child relationship. Research has indicated that, though many of the various approaches are each moderately effective, a parenting approach that combines the various approaches would likely be more effective (Haffey & Levant, 1984; Hindman et al., 2012; Walker & Kirby, 2010).

**Group-parenting education programs.** The group format has been shown to be effective in improving parenting and thereby improving children's behavior. Parenting groups are cost-effective and are often preferred to individual or family therapy (Sanders & Ralph, 2004). The group-parenting format can also be effective in improving parents' and children's mental health (Barlow, 2000). Programs that provide parenting education and support using a group format have the strongest results for parental behavior and children's outcomes (Layzer et al., 2001). In fact, according to meta-analysis conducted by Layzer, Goodson, Bernstein, and Price (2001), programs with the largest effect sizes for parent outcomes focused on effective parenting including self-confidence, self-empowerment, family management, and parenting. Though parenting education is currently available through mass media, counseling, or group programs, parenting education is almost exclusively conducted in a group setting (Pehrson & Robinson, 1990). In addition, parenting education in a group format is a valuable and cost-effective option (Graziano & Diament, 1992).

**Relationship-enhancement programs.** There are numerous relationship-enhancement parenting programs currently available in workshop formats that have shown varying degrees of effectiveness and usage. Programs that dominate the field of parent education include Parent Effectiveness Training (PET) (Gordon, 1970, 2008) and Systematic Training for Effective Parenting (STEP) (Dinkmeyer & McKay, 1975, 1989), PET and STEP are both parenting programs that have shown to be generally beneficial on enhancing parenting attitudes, skills, and practices (Cedar & Levant, 1990; Doherty, 2002; Doherty & Ryder, 1980; Hamner & Turner, 2001; Noller & Taylor, 1989; Thomas & Lien, 2009) PET was developed by Gordon (1970), who drew on the concepts and techniques of Carl Rogers; STEP was developed by Dinkmeyer and McKay (1975) based on Alfred Adler's and Rudolf Dreikur's work. PET is more costly but also has stricter training and accreditation than STEP (Cedar & Levant, 1990; Noller & Taylor, 1989).

STEP's basic concepts are democratic relationships; natural and logical consequences; reflective listening; I messages; communication skills; and an understanding of children's behavior (Dinkmeyer & McKay, 1975, 1989). The approach emphasizes changing children's behavior, and therefore is focused on pathology. The major goal is raising responsible children (Dinkmeyer & McKay, 1975, 1989). STEP is either run by a leader in group sessions or learned through self-study by the parent (Dinkmeyer & McKay, 1975, 1989). It is a comprehensive package, with videos and various visual displays as well as a parent and leader handbook (Dinkmeyer & McKay, 1975, 1989).

PET's basic concepts focus on parents creating a democratic and collaborative relationship with their children, where they build communication and conflict resolution skills (Gordon, 1970, 2008). The techniques included active listening, *I* messages, and No-Lose Conflict Resolution, which is based on John Dewey's steps to resolve conflict (Gordon, 1970, 2008). Gordon (1970) promoted the idea that any and all issues can be resolved using a model called the Behavior Window, which assisted parents in deciding which technique to use to solve conflicts or issues with their children.

In a critique of PET, Doherty and Ryder (1980) objected to the statement from PET founder Gordon (1970) that PET could improve all relationships, and if the techniques did not work, then they were not implemented properly. This statement placed the lack of program effectiveness on the parents (Doherty, 2002, Doherty & Ryder, 1980). While many programs have shown promising results, no one program has been effective in increasing parenting skills and practices on all populations, ages, and personalities (Cedar & Levant, 1990; Thomas & Lien, 2009). Doherty and Ryder (1980) proposed that PET was an important parent education program, but objected to this universal claim. Their claim was later supported by Cedar and Levant (1990) who conducted a meta-analysis on the effects of the PET program.

Although some researchers suggested these programs may be effective, other researchers highlight problems with the programs (Doherty, 2002; Doherty & Ryder, 1980). Doherty and Ryder (1980) identified criticisms of PET, and suggested that problems with the program are common to other programs as well. For example, Doherty and Ryder (1980) suggested PET techniques are a manipulation, rather than a parent simply interacting in a positive manner with their child. They also noted that if a

child does not respond to prescribed technique, that it was not performed properly. This promotes an expectation that a parent must perform perfectly, which creates unrealistic expectations and blames parents for all problems. Doherty and Ryder (1980) proposed that PET is an important contribution that can be effective, but object to this universal claim. Doherty and Ryder (1980) also suggested that the use of techniques by only one parent is problematic; in fact, they quoted PET literature (e.g., Anchor & Thomason, 1977; Croake & Glover, 1977; Rinn & Markle, 1977), which suggested that there is often a great discrepancy in parenting behaviors and practices between spouses that can create friction.

A study conducted by Gardner et al. (2006) examined a program led by non-professionals who were trained extensively in The Incredible Years parenting program (Webster-Stratton & Webster, 1992) and supervised by a psychologist. Results indicated significant improvement in children's problem behavior, play, sibling behavior, and positive and negative parenting (Gardner, 2006). Parents were instructed to be consistent with all children and not strictly the child exhibiting behavior problems, and small improvements were reported in other children in the family as well. In addition, results were tested at 18 months, and the data showed that the effects were maintained (Gardner, 2006). These positive results contributed to the credibility of utilizing non-professionals for prevention and early intervention to access a greater population (Gardner et al., 2006)

Other programs include Love and Logic, created by Cline and Fay (1980, 2014); Triple P, created by Sanders (1992); and the series of How to Talk so Kids Will Listen and Listen so Kids will Talk, by Mazlish and Faber (1980). Love and Logic's premise is

based on parental control in order to get children to obey (Cline & Fay, 1980, 1990). It focuses on teaching children to be independent and itemizes how to deal with all sorts of misbehavior and discipline (Cline & Faye, 1980, 1990). Triple P is based on behavioral theories, and it focuses on parental control and discipline of their child's behavior (Sanders, 1992). Faber and Mazlish's (1980) parenting education series is based on theories by Ginott (1965). Smith (2010) reported that parenting programs that include parenting skills training, such as Triple P (Sanders, 1999), *How to Talk so Kids Will Listen* and *Listen so Kids will Talk*, by Mazlish and Faber (1980) and *Love and Logic* (Cline & Fay, 1980, 1990) are more effective than simple parent education programs.

In summary, although Besser et al. (2009) acknowledged the existence of numerous effective parent education programs, the CDC research itemized those parent skills and interactions with their children that were most critical in resulting in positive and healthy child outcomes. Besser et al. (2009) did not include in their study an examination of the parent education program, Nurtured Heart Approach (NHA), although NHA includes these critical common factors that the CDC research suggested to be most effective on child outcomes.

### **Outcomes of Parenting Education**

Parenting education is reported to benefit parents by helping them feel more competent in their parenting, develop increased optimistic expectations of their family, and learn more about modifying children's behavior. In addition, positive changes in parents have been linked to constructive changes in their children (Helm & Kozloff, 1986). A meta-analysis study conducted by Layzer, Goodson, Bernstein, and Price (2001) analyzed family support services, including parent training. They included 260

programs for meta-analysis; 254 of these programs were focused on improved parenting (Layzer et al., 2001). Only 12% of programs were not targeting populations with risks such as low socioeconomic status (SES) (Layzer et al., 2001).

The meta-analysis showed that positive changes existed for both parents' and children's outcomes (Layzer et al., 2001). Results indicated that programs that focused on parental competencies targeted developmental delays and/or behavioral programs tended not to target low SES families, tended not to use home visits, and generally used professionals to lead programs (Layzer et al., 2001). These programs tended to produce more beneficial outcomes for children, with an effect size of .57 (Layzer et al., 2001). In contrast, Layzer et al. (2001) results showed that programs that targeted low SES families and were home-based had a smaller effect size -- .23 -- on children's social and emotional outcomes. Layzer et al.'s (2001) results also showed that programs that used a group format and offered peer support were more effective in improving children's cognitive outcomes than were home-based programs.

In a meta-analysis study, Lundahl, Nimer, and Parsons (2006) examined 23 studies, focusing on outcomes including parents' attitudes toward abuse, emotional adjustment, child-rearing skills, and actual abuse. The studies examined included 17 pre-post only designs, four studies that compared one treatment group to one control group, and two studies that compared two treatment groups to one control group (Lundahl et al., 2006). Studies with a control group did not show significant differences in child-rearing attitudes linked to abuse or their child-rearing behavior outcomes (Lundahl et al., 2006). Results indicated that parent training is effective in reducing the risk of parents physically abusing, verbally abusing, and neglecting their children

(Lundahl et al., 2006). Results were less encouraging for identified abusers, with only two out of three programs showing strong effects (Lundahl et al., 2006). Results regarding theoretical orientation were inconsistent. Programs that were non-behavioral or a mixture of behavioral and non-behavioral improved child rearing attitudes significantly more than behavioral programs (Lundahl et al., 2006). Behavioral programs changed child rearing behaviors more than the non-behavioral programs, though attitudes showed more durability of change over time than behaviors (Lundahl et al., 2006). Therefore, Lundhal et al. (2006) recommended parent education programs that utilized behavioral and non-behavioral practices.

Taking a qualitative approach to program evaluation, First and Way (1995) conducted a phenomenological study with eight culturally diverse predominantly low-income women to examine their experiences participating in a parent education program. The parenting education program took an eclectic approach, combining elements of several programs that the researcher found useful in prior studies; these elements included instructing parents on active listening and positive reinforcement of their child's prosocial behaviors, no matter how small, recognizing and responding to their children's needs, and avoiding power struggles (First & Way, 1995). The mothers in First and Way's (1995) study voiced that they had a transformative experience as a result of participating in the program. They reported that not only did they learn new skills that elicited positive behavior changes in both themselves and their children but more importantly, they experienced the program as life-changing (Fine & Way, 1995). The mothers spoke of transformations: from feeling ineffectual and worthless as mothers to developing a sense of parenting competency and self-efficacy; from being worn down



with parent responsibilities to feeling empowered as a parent; from parenting proactively instead of reactively; and from feeling disconnected from their children to having meaningful interactions with them (Fine & Way, 1995).

The effectiveness of several parenting programs has been demonstrated above through various research studies, however there are also critiques and caveats of these same parenting programs (Brotman et al., 2008, 2011; McGroder & Hyra, 2009; Walker & Kirby, 2010; Washington & Dunham, 2011). Though most programming is based on theoretical approaches, such as behaviorism, parents are taught practices as if they will lead to instant behavior change (Brotman et al., 2008, 2011). Critics also argue that the population of low SES parents who have children with behavioral problems often have not shown improvement in the parenting skills and practices after participating in parenting programs (Beauchaine et al., 2005; Brotman et al., 2008, 2011; Dodge, 2011). Much of the research has indicated that a shift in parental attitudes, especially with regard to how they perceive their children and their children's behavior, is of key importance for sustained maintenance positive parenting practices (Dishion & Stormshak, 2007; Dodge, 2011). While not all parent education programs have been shown to be effective – and one program alone will not fit for every parent – research has supported the argument that parents should have access to various parenting education programs to have more options in their repertoire of parenting skills (Baumrind, 2012; Dodge, 2011; Smith et al., 2010).

**Focus on young children.** A focus on parenting young children is important for several reasons. Neary and Eyberg (2002) suggested that behavioral problems are easier to modify in a young child. Though preschoolers who exhibit behavioral problems may

not fit the criteria for a diagnosis, they are at risk of developing more serious problems as they get older (Faan & Grady, 2002; Shetgiri et al., 2012; Wahl & Metzner, 2012; Yahav, 2006). Indeed, behavioral problems in young children are associated with continued difficulties in adolescence (Alizadeh et al., 2011; Burt et al., 2005; Darling & Steinberg, 1993; Deutsch et al., 2012; Gavazzi, 2011; Lansford et al., 2004). Since research suggests that behavioral problems can be prevented and treated, it is important to address them as soon as possible (Gardner, Burton, & Klimes, 2006; Washington & Dunham, 2011).

Parenting education in the early years does more than educate parents in corrective measures; it often works as prevention (Dodge, 2011; Smith et al., 2010). This is especially significant for the younger “unformed” child (Dodge, 2011; Smith et al., 2010). Research has suggested that educating parents of younger children is more effective for several reasons. Problems are easier to change when caught early, because behavior problems are less ingrained (Dishion & Stormshak, 2007; Linville et al., 2011). In addition, social and behavioral functions are more malleable at this age, as are parenting behaviors (Dodge, 2011; Havighurst, Wilson, Harley, & Prior, 2009). This is important because negative parent-child interactions that continue without intervention are likely to become more problematic as children get older (Deutsch et al., 2012; Lansford et al., 2004; Shetgiri et al., 2012; Wahl & Metzner, 2012; Yahav, 2006). Parental influences are also more effective at a young age because parents are the most influential and important individuals in the youngsters’ lives; peer influences do not generally carry the same weight that they might for older children (Hindman et al., 2012;

Knafo & Plomin, 2006). In addition, children without a positive home base are more likely to engage in risky behavior (Hines & Holcomb-McCoy, 2013).

Because of the costs of mental health care, early prevention has become a priority (Reedtz et al., 2011; Washington & Dunham, 2011; Webster-Stratton, Reid, & Hammond, 2001). Early intervention and prevention are both critical and cost effective (Hindman et al., 2012). The evidence suggests it is urgent to shift attention from “reactive intervention to prevention and health promotion” (Hoghugh, 1988, p. 34). Parent training has generally been reactive rather than proactive (Stagner, 2009). By the time a family is referred to a mental health professional, they have already tried dealing with their issues, often ineffectively, which generally results in the family feeling demoralized and helpless (Hindman et al. 2012). At this stage, treatment will generally be more difficult, take a great deal more time, and cost more (Hindman et al., 2012; Webster-Stratton & Herbert, 1994). This highlights the importance of Hoghugh’s (1998) suggestion that general practitioners, pediatricians, and primary care teams are key figures in directing parents towards education and promoting better parenting practices.

### **Nurtured Heart Approach (NHA)**

Howard Glasser was the founder of the Nurtured Heart Approach (NHA), and he introduced the NHA parenting program in his book called *Transforming the Difficult Child: The Nurtured Heart Approach*, published in 1999. He provided additional information about NHA in his 2007 book, *The Inner Wealth Initiative: The Nurtured Heart Approach for Educators*. Glasser (1999, 2007) stated that the NHA program is not simply about improving behavior, as other programs are; the goal is inspiring

children to see their self-worth and believe themselves capable of great things (Glasser, 1999, 2007). This approach was designed to give children the tools to believe in themselves, to navigate the world with confidence, and to make better choices. NHA does not target any specific behaviors, but rather the whole child. It teaches parents how to recognize children's successes in a vivid, energetic manner that goes beyond just "a job well done good job" (Glasser, 2007, p. 38).

NHA was initially designed for the "difficult" or "intense" child (Glasser, 1999, p. 45). It evolved to include all children in a proactive way, rather than as a response to unacceptable behavior (Glasser, 1999, 2007). Glasser (1999, 2007) posited that all children have bad days, and that parents are often helpless to deal with their normally well-behaved child. If a child is treated negatively, Glasser (1999, 2007) argued, there can be negative consequences, particularly when the negative interaction becomes a recurring pattern. Glasser (2007, p. 46) has identified the goal of NHA as creating "inner wealth." Inner wealth is more than self-confidence, self-esteem, or "believing in yourself." The children experience themselves as capable and worthy of greatness, develop clarity about who they are, and are inspired to be capable of great things (Glasser, 2007).

Glasser (2007) maintained that traditional approaches were "upside down" in their attention to children's negative behavior (p. 47). He argued that most parenting education approaches essentially celebrated problems and all but ignored or downplayed children's successes (Glasser, 2007). In response to children's negative behavior, parents generally shower their children with attention, whether this attention is conveyed in a gentle and positive manner or an angry, negative manner (Glasser, 2007). Glasser

provided the analogy that a parent was effectively giving the child a \$100 bill for negative behavior: for example, when a child disrupts the class, the teacher may kindly and lovingly focus the child on their work in an attempt to dispel the disruption. The message that the child receives is: “If you disrupt the class, you get caring, loving attention and relationship, and when you don’t disrupt, you are relatively invisible” (Glasser, 2007, p. 47). The intense child craves the connection even if the attention was not loving and kind. When the child has disobeyed or acted out, parents often invest time and energy in the child, sharing words of wisdom to inspire them to do better (Glasser, 2007). That is not the message that many kids receive. They perceive their bad behavior as resulting in connection, any kind of connection. The NHA has a crucial difference from other programs gives the child the tools to make good choices without warnings, lectures, or tactics designed to coerce them into “being good” (Glasser, 2007, p. 48)

The NHA parenting approach was built on the belief that children want a connection with their parents and many crave their presence and energy—the more the better (Glasser, 1999, 2007). Glasser (1999, 2007) described adult reactions to children’s positive and negative behavior as if the adult were a toy that has both boring features and high-energy features, respectively. Intense children, who crave any kind of connection and energy from parents, perceive the high-energy feedback of parent reactions to negative behavior as their toy becoming very animated (Glasser et al., 1999, 2007). The methods are applied as intensely as is warranted by the intensity of the child or the situation (Glasser, 2007).

Glasser (1999, 2007) noted that the NHA worked in two ways: (a) by increasing parents' energy and connection levels with their children when things were going well, and (b) by having parents withdraw from and not reinforce their children's negative behavior. He posited that once children get accustomed to the change, they will make every effort to respond to their parents' positive attitudes and behaviors (Glasser, 1999, 2007). Glasser (1999, 2007) further stressed the difference between the concept of "catch the child being good" and the NHA, and stated that the NHA created greatness by seeing the child's inherent greatness and reflecting it with "fierce power and commitment" (Glasser, 2007, p. 35). In order to convince children -- particularly children who may believe that they are unworthy -- of their own greatness, parents are taught to be "warriors," to convince children that they can be successful (Glasser, 2007, p. 37).

It has been reported by Glasser (2007) that NHA results have shown that the parenting education has resulted in children becoming more secure, showing higher achievement, and demonstrating excellent conduct and inner strength. Parents have reported that using the NHA method on all their children has improved their "problem" child's behavior dramatically and helped their other children "flourish" as well (Glasser, 2007, p. 17).

Many NHA parent coaches were initially participating parents who learned this approach, were affected greatly by it, and subsequently decided to share their experiences to help others (personal communication). The program offers a variety of training formats, including textbooks and workbooks, workshops, and personal parenting coaches who work with parents privately, through options including in-home visits, an

interactive website that offers newsletters and information, and access to an additional interactive support network for paid members (Glasser, 2007). Glasser shared that though the approach was loosely based on both structural and strategic therapy, he was frustrated with the limitations of the earlier parenting programs available. NHA emerged after years of clinical experience and observations about what worked and what did not (Personal email, 2010).

Glasser (2007) described his work in treatment of families, specifically youths in the juvenile court system. He reported that many people were prepared to write off these young people because the traditional methods did not work (Glasser, 2007). He maintained that the approach had a positive impact on even the toughest cases (Glasser, 2007). Glasser described the evolution of the Nurtured Heart Approach as a spiritual inspiration that proved successful and, with continued refinement and experimentation, ultimately showed great success.

**Basic NHA techniques.** The following information is derived from a PowerPoint presentation utilized in actual NHA workshops from 2010 to 2012. The NHA workshop materials argue that we are very quick to label children's symptoms as pathology, when there might be a better way to think about these problems. While the program acknowledges that medication may be necessary in some cases, Glasser (1999, 2007) asserted that high intensity children are often pushed to diagnosis and medication needlessly. He also argued that medications, which often obscured and masked symptoms, were overused and may have had unnecessary damaging effects (Glasser, 1999, 2007). For many children, Glasser (1999, 2007) posited, there was a better way to research healthy expression and channel their intensity positively.

The first step in NHA is to continuously and energetically highlight children's every little bit of success (Glasser, 1999, 2007). According to Glasser (1999, 2007), NHA has been effective by encouraging parents to utilize the time when things are going well to teach by being proactive and preventative with their children. To change negative behaviors, Glasser (1999, 2007) argued, parents must give children opportunities to succeed and show them irrefutable evidence of their goodness and their successes. NHA introduces to parents the skills to encourage opportunities and to create the positive interactions in which the child can choose to be good (Glasser, 1999, 2007). Glasser suggested that parents can do this by putting the bar very low to show them experiential success, and then raising the bar slowly. One important technique -- especially in children whose positive moments are very few and far between -- is what Glasser (2007) termed the calls a "Kodak moment" (p. 32). Using this technique, the parent looks at the child and describes, simply but in detail, what they see, just to connect and show the child that he or she is noticed (Glasser, 2007). . At times, it might mean that the child is not having a great moment or the child is not especially well-behaved, but the parent can still reframe the moment (Glasser, 1999, 2007). When children have a new perspective of themselves -- a new portfolio -- their previous view of themselves can slowly be changed (Glasser 1999, 2007).

The second step in NHA is that parent show no recognition nor do they respond to negative behaviors of the children (Glasser, 1999, 2007). Parents are instructed to energize positivity only with recognition, acknowledgment, and appreciation: Glasser stated that parents have rules, incentives, and consequences that are clear and consistently acted upon. Consistency in rules and consequences, he argued, was crucial



in changing the negative behaviors of children (Glasser, 1999, 2007). While successes should be celebrated, consequences for mistakes should be immediate but not punitive (Glasser 1999, 2007). The NHA workshops rely on this model, urging parents to avoid any recognition of negativity (Glasser 1999, 2007).

Once parents have mastered the first two steps, then the NHA program then provides instruction on how to set clear rules and consistent consequences, with a “perfect” level of limits, for the children (Glasser, 1999, 2007). Children and parents both must know the rules (Glasser, 1999, 2007). Glasser (1999, 2007) argued that long time- out periods for children are not helpful as they prolong the negativity of the children’s behavior. As NHA focuses on opting out of negativity and focusing on positivity, it relies on a technique called a “reset” (Glasser, 2007, p. 23). During a reset, the parent says “Reset” or “Pause” and then turns away from the child, “unplugging energy” from their interaction (Glasser, 2007, p. 24). After a few moments, the parent can return to the child and give attention, focusing on success by acknowledging rules not broken or mature acceptance of the consequence (Glasser, 2007). These characteristics of the NHA set it apart from other parenting programs, which are more focused on preventing problem behaviors than promoting better behaviors (Glasser, 1999, 2007)

**Evaluation of the NHA program.** The implementation of the NHA program is quite extensive. As of 2013, over 500 clinicians have been trained in the NHA approach, and the NHA program has been implemented in 15 countries and 41 states (Hektner, Brenna, & Brotherson, 2013). However, only recently has research supported the effectiveness of the NHA program in enhancing parental attitudes, behaviors, and

parental perceptions of children (Allman, 2014; Hektner et al., 2013). The NHA approach was first used and evaluated school-wide in 1999 at Tolson Elementary in Tucson, Arizona, a school with over 500 students (Glasser, 2007). This school had the highest rate of suspension in a district of over 60 schools. The population was composed largely of disadvantaged families, with 80% enrolled in the free and reduced lunch programs. Glasser (2007) reported that, after adopting the NHA, the Tolson School had only two suspensions, no referrals to the juvenile justice system, no referrals for ADHD evaluations, and no new children on ADHD medications. Special education costs decreased from 15% to 1.2% (Glasser, 2007). Teacher attrition, which was previously over 50%, dropped to 0% in three years (Glasser, 2007). The Gifted and Talented program enrollment rose from less than 2% to 15% (Glasser, 2007). Glasser attributed these very promising results to the theory-based implementation of NHA, based on his theory that children who began to feel great about themselves wanted to behave well and do well (Glasser, 2007).

Researchers at North Dakota State University (Brennan & Hektner, 2012; Brennan et al., 2016; Hektner, 2012; Hektner et al., 2013) have initiated university-based evaluation research on NHA. Hektner (2012) evaluated the efficacy of the NHA using a sample of 190 Caucasian parents in the intervention group and 94 Caucasian parents in the control group. Hektner (2012) used all subscales on the PRQ and PDS as well as the BERS-2. Hektner conducted a series of paired-samples *t*-tests to determine if the intervention and control groups of parents, respectively, had significant pretest to posttest changes on these measures. Hektner found significant pretest to posttest increases in parenting confidence and perceptions of child's interpersonal strengths and

significant pretest to posttest decreases in relational frustration for the parents in the NHA intervention group. Parents in the NHA intervention group also had significant pretest to posttest increases in positive attention directed at their child and significant pretest to posttest decreases in use of inappropriate verbal discipline. These changes were not found for the group of 94 control parents.

Brennan and Hektner (2012) in a study conducted with predominantly Caucasian (90%) parents in the experimental ( $n = 326$  in the intervention group and  $n = 92$  in the control group), examined whether participation in the NHA program increased parents' well-being, positive parenting practices, and parents' perception of child strengths. Data were collected from both groups of parents over two years; the investigators utilized data from 41 NHA programs. Parent well-being was measured using the Parenting Relationship Questionnaire (PRQ; Kamphaus & Reynolds, 2006), positive parenting practices were measured using the Parent Discipline Scale (PDS; Conduct Problems Prevention Research Group [CPPRG], 2001), and parents' perceptions of their child's interpersonal strengths were measured using the Social Competence Scale-Parent Version (SCS-P; CPPRG, 1995, 1999). Using *t*-tests, Brennan and Hektner (2012) found that parents in the NHA program reported significantly higher levels of parent well-being, positive parenting practices, and enhanced perception of child interpersonal strengths.

The second conference research presentation by Brennan and Hektner (2012b) was based on the same sample and examined whether children differing by birth order differentially influenced parents perceptions of child's interpersonal strengths Results from a 2 (intervention, control) by 4 (child birth order) showed a main effect for the

NHA intervention, in that parents in the NHA workshop reported higher levels of perceived child interpersonal strength, but not a main effect or child birth order or an interaction effect of parent group (intervention versus control) and child birth order (Brennan & Hektner, 2012b). Parents in the NHA workshop reported increased levels of child interpersonal strength regardless of the birth order of the child (Brennan & Hektner, 2012b).

Brennan et al. (2016) utilized the data set which is partially used in this study, although the authors used data from all parents, not just parents of children ages 5 to 8. Brennan et al. (2016) using paired-samples *t*-tests, found that the participants in the NHA intervention reported significant pretest to posttest increases in the use of appropriate verbal discipline (as measured by the PDS appropriate discipline). However, when examining posttest differences between intervention and control parents, Brennan et al. (2016) found that intervention parents did not significantly differ from control parents with regard to perceptions of child interpersonal strengths (as measured by the BERS-2).

One conference presentation from The University of North Carolina at Chapel Hill (Taperek & Ruoff, 2009) has documented effectiveness of the NHA program. Taperek and Ruoff (2009) in a study conducted with 320 parents who completed the NHA workshop and a control sample of 100 parents, examined whether participation in the NHA workshop resulted in differences between parents who attended the NHA workshop and control parents. Taperek and Ruoff (2009) assessed parent well-being using the Parenting Relationship Questionnaire (PRQ; Kamphaus & Reynolds, 2006) and parents' perceptions of child of interpersonal strengths using the SCS-P (CPPRG,

1995, 1999). Results from *t*-tests showed that parents in the NHA workshop reported significantly higher levels of parent well-being and perceived child interpersonal strengths than did parents in the control group (Taperek & Ruoff, 2009).

The results of these evaluation studies are promising. However, as stated by Hektner et al. (2013) “additional work remains to be performed establishing the empirical effectiveness of the program with targeted populations” (p. 13). The proposed study will contribute to the existing literature on NHA by evaluating the effectiveness of the NHA program on parent and child outcomes.

### **Theory**

The family systems theory, while excellent in providing a developmental framework of family development over the lifespan, does not provide a framework to explain the processes and interactions that occur between parent and child (Hulbert, 2011). Therefore, two theories that provide a guide to the processes involved in the parent and child relationship guides this study. They are Bandura’s (1977) social learning theory (SLT) and Mowder’s (2005) parent development theory (PDT), both of which acknowledge the importance of the social interactions between the parent and child. While Bandura’s (1977) SLT is more of an overarching socialization model -- one that has relevance beyond parent and child interactions and behaviors -- Mowder’s (2005) PDT approach -- which borrows from SLT -- is specific to family processes involved in parenting. Nonetheless, both SLT and PDT provide pertinent frameworks to understand the cognitions, attitudes, and behaviors involved in parenting.

### Bandura's (1977) Social Learning Theory (SLT)

Bandura (1977, 2008, 2011) posited that behavior (B) is the function of the person (P) interacting with his or her environment (E) (see Figure 3). These persistent, ongoing, and highly influential interactions between a person's cognitions, environmental influences, and behaviors were defined by Bandura (1977, 2008, 2011) as *reciprocal determinism*. Through the SLT lens, human behavior – particularly, children's learning within their families -- is part of a reciprocal transactional system wherein children learn where patterns of behavior using observation, modeling of behavior, and reinforcement (Bandura, 1977, 2008, 2011).

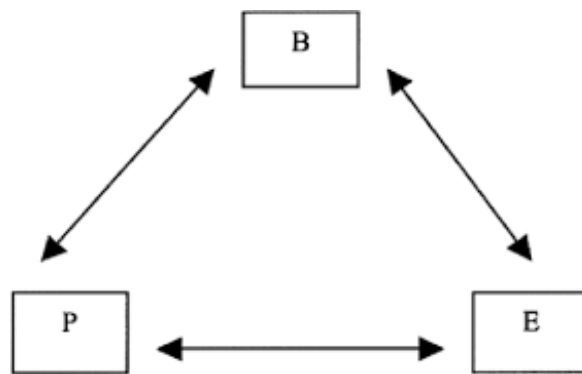


Figure 3. Bandura's (1977) reciprocal determinism (not copyrighted).

Bandura (1977, 2008, 2011) proposed three principles to guide SLT. The first principle is that *observational learning* is most effective when the individual rehearses the behavior cognitively, that is visualizing the behavior as well as coding the behavior into words or phrases (Bandura, 1977, 2008, 2011). The second principle is that individuals are more likely to adopt and repeat a modeled behavior if that behavior is *reinforced*, that is, it consistently results in a desired outcome (Bandura, 1977, 2008, 2011). The third principle is that individuals are more likely to adopt and repeat a

behavior if, using *vicarious reinforcement*, they observe an admired and influential person performing that behavior and it results in a desired outcome (Bandura, 1977, 2008, 2011)

Bandura (1977, 2008, 2011) argued that observational learning is driven by four processes, which must be able to be replicated by the individual in order to influence that person's actions and cognitions. First, the individual must have the capacity to pay attention to the behavior in order to learn it. The attentional capacity is influenced by the event being modeled as well as the cognitive and sensory capacity of the individual (Bandura, 1977, 2008, 2011). Second, the individual must be able to retain -- to remember -- what is being modeled as well as its consequences (Bandura, 1977, 2008, 2011). Third, the individual must have the ability to reproduce and perform the event; this ability is influenced by such factors as having the cognitive skill to think through the actions and motor skill development (Bandura, 1977, 2008, 2011). Fourth, the individual must have the motivation to repeat the event. Bandura (1977, 2008, 2011) argued that motivation is greatly influenced by such factors as reinforcement, including vicarious reinforcement (i.e., observing another individual's consequences of his or her behavior) and self-efficacy based on past success or failure in performing the behavior.

Thus, SLT is very relevant to children's learning of behaviors: learning is highly dependent on the cognitive and physical capacity of the child in interaction with the individual -- most likely, the parent -- who is performing the behavior (Meyer et al., 2013). Children's behavior is primarily learned in the home from an early age (Caspi et al., 2004; Knafo & Plomin, 2006; Meyer et al., 2013; Thomas & Chess, 1977). Children observe how family members behave as well as the responses and reactions from that

behavior, and they interpret the outcomes of various behaviors, thereby learning behaviors that result in desirable outcomes (Caspi et al., 2004; Knafo & Plomin, 2006; Meyer et al., 2013; Thomas & Chess, 1977). Thus, parent behavior and its consequences as observed by children gives them a future reference for their own behavior (Caspi et al., 2004; Knafo & Plomin, 2006; Meyer et al., 2013; Thomas & Chess, 1977). Moreover, parental reinforcement of children's behavior plays a crucial role in children's learning (Baumrind, 2012; Dodge, 2011; Scott & Dadds, 2009). Children who are rewarded for a behavior -- whether it is positive or negative -- are more likely to repeat that behavior (Baumrind, 2012; Dodge, 2011). Children's repetition of a behavior is more likely to occur if parental reinforcement of the children's behavior is coupled with the parents' consistent use of the same behavior, especially if the children perceive that the *parents'* behavior is rewarded (Bandura, 1977; Scott & Dadds, 2009). As such, children will more likely engage in prosocial behavior if (a) the parents demonstrate and model prosocial behavior; and (b) the children's behavior is recognized and reinforced with praise and encouragement (Baumrind, 2012; Dodge, 2011; Scott & Dadds, 2009).

Certainly, children observe, model, and imitate behaviors from adults other than parents. Bandura (1977) provided an example of a case reported by Harris, Wolf, and Baer (1964) which directly applies to this study. The case, which occurred within a school setting, involved a young boy who withdrew from his peers and preferred to engage in solitary activities for 80% of the class time (Harris et al., 1964). It was observed that the teachers were "unwittingly reinforcing his seclusiveness by paying a great deal of attention to him when he was withdrawn" and "on the infrequent occasion when the child happened to join other children, the teachers took no special notice"



(Bandura 1977, p. 98). In order to change the child's behavior to one that was more prosocial, the teachers were instructed to ignore the boy's withdrawn behavior but to reinforce his behavior whenever he chose to engage with other children (Bandura, 1977). Subsequently, the boy's behavior markedly changed, and after this intervention, he spent the majority of his time playing and interacting with the other children (Bandura, 1977).

Parenting programs based on social learning theory have been effective for the majority of families, and have been growing for the past 40 years (Scott & Dadds, 2009; Taylor & Biglan, 1998), reducing child behavior problems and producing lasting effects (Kotler & McMahon, 2004). They have also been effective in reducing and preventing children's serious behavior problems by improving family risk factors—such as stress and depression in parents—and ineffective and inconsistent parenting, such as parental coerciveness (Taylor & Biglan, 1998). However, Scott and Dadds (2009) argued that social learning theory does not explain why and how attention is a reward for children. Mowder's (2005) PDT approach provides an explanation for this, and in the following section on the Nurtured Heart Approach (NHA), the discussion of the NHA intervention answers this question in great detail.

### **Mowder's (2005) Parent Development Theory (PDT)**

Mowder (2005) who based her model on Bandura's (1977) SLT, defined the parent and child relationship as one based on schemas and perceived social roles. Specifically, individuals who become parents have specific schemas and perceptions as they relate to the role of parent; in addition, a child develops a specific social role in relation to the parent, that of "being a child to a parent" (Mowder, 2005, p. 81). Therefore, PDT concerns the cognitions and attitudes of both the parent and child in

regard to their respective social roles within the family context (Mowder, 2005; Respler-Herman, Mowder, Yasik, & Shamah, 2012).

Pertinent to these social roles are cognitive, physical, emotional, and social developmental changes across the lifespan (Respler-Herman et al., 2012). Mowder (2005) argued that both the child and parent go through developmental changes; for example, the parent may experience developmental changes due to aging, experiences, personality, and education. However, Mowder (2005) argued that the child's developmental stages are more likely to influence and impact the parent's behavior; moreover, parenting behavior changes in response to the age and developmental stages of the child. Mowder (2005) posited that the parenting role -- and the changes in the parenting role -- is significantly impacted by six characteristics. The first characteristic is *bonding*, or the level of attachment between the parent and child (Mowder, 2005). The second characteristic is *discipline*, and is similar to Baumrind's (1966) concept of parental control (Mowder, 2005). The third characteristic is *education*, which Mowder (2005) defined as "the parental transmission of information in order to inform and guide the child" (p. 82). The fourth characteristic is *general welfare*, which is the means in which the parent protects and provides for the child (Mowder, 2005). The fifth characteristic is *responsiveness* of the parent to the child (Mowder, 2005). The sixth characteristic is *sensitivity*, defined by Mowder (2005) as "the sense of accuracy in determining and responding appropriately to children's needs" (p. 82). Central to PDT is the adjustment of the parent to the parenting role as it shifts to accommodate the needs of the child at specific developmental stages and statuses (Mowder, 2005).

In alignment with SLT (Bandura, 1977), Mowder (2005) in her PDT approach, recognized the importance of the environment and the individual parent's cognitions in influencing the parents' behavior. Mowder (2005) argued that the six characteristics of parenting are significantly impacted by external social forces including (a) the social interactions unique to a specific child (e.g., based on the child's age, personality, and developmental capacities), (b) family dynamics and family changes (e.g., divorce, death), and (c) the larger "social-cultural milieu" (Mowder, 2005, p. 82). In regard to parent cognitions, Mowder (2005) in alignment with Bandura (1977), posited that parenting behaviors are additionally influence by the parents' own (a) experiences of being parented as children, (b) perceptions of what it means to be a parent in society, and (c) sense of parenting self-efficacy.

### **Review of Study Instruments**

Most evaluation studies of parenting education programs rely on parent-report instruments to document changes in both parent and child cognitions, attitudes, and behaviors as indicators of program success (Faith et al., 2012; Lonergan, Gerber, Streek, Initiative, & Sharry, 2015; Webster-Stratton, Reid, & Beauchaine, 2011). The reliance in parent intervention studies on parent reports of their child's emotional states and behavioral problems has led to substantial examination of how parenting demographic and mental health factors may influence parents' reporting of child emotions and behaviors as well as the congruence between parent and child reports (and parent and teacher/observer reports). Parents' perceived health and mental health has been shown to be associated with parental reports of their child's health and mental health (Waters, Doyle, Wolfe, Wright, Wake, & Salmon, 2000; Van Roy, Gorholt, Heyerdahl, &

Clenhc-Aas, 2010); this is especially seen with regard to parental depression and stress, with parents with high stress and clinical depression reporting higher levels of child emotional and problem behaviors (Flake, Davis, Johnson, & Middleton, 2009; Gunlicks & Weissman, 2008; Riley et al., 2008, 2009). Studies have also shown that parental gender, age, ethnicity, socioeconomic status, education level, may also influence how parents rate the severity of their child's emotional and behavioral problems (Leijten, Raaijmmakers, de Castro, & Matthys, 2013; Van Roy et al., 2010; Waters, Doyle, Wolfe, Wright, Wake, & Salmon, 2000).

Other studies have shown that parents' reports of their child's mental health issues and behavior significantly correspond to child self-report scores (Blakeley-Smith, Reaven, Ridge, & Hepburn, 2012; Nakamura, Ebesutani, Bernstein, & Chorpita, 2009; Rescorla et al., 2007) and/or teacher or other observer's ratings of child mental health issues (Phares, Compas, & Howell, 1989; Webster-Stratton, Reid, & Beauchaine, 2011). Evaluators of parenting education programs further posit that parents' *perceptions* of their child's behaviors is more relevant than the child's actual behaviors as the goal of the parenting education program is to change parents' attitudes and cognitions regarding parenting, which in turn, will positively impact their parenting behaviors and child outcomes (Faith et al., 2012; Menting, de Castro, & Matthys, 2013; Reyno & McGrath, 2006; Thomas & Zimmer-Gembeck, 2007; Webster-Stratton et al., 2011).

Due to the historical and continuing use of parent self-report instruments in parenting education programs, substantial efforts have been made to utilize psychometrically sound instruments that assess not only child emotional and problem behaviors, but also parent and parenting factors (Carpenter & Donohue, 2006; Hurley,

Huscroft-D'Angelo, Trout, Griffith, & Epstein, 2014). Time and resource limitations with regard to parenting education evaluation activities also require the use of instruments that are easy to administer, inexpensive, efficient, understandable, and relatively short in length (Carpenter & Donohue, 2006; Hurley et al., 2014; Rich & Eyberg, 2001). The instruments used in this study have been selected due to their extensive use in parenting education programs, including the NHA program.

### **Summary**

Being a parent can be both the most rewarding and the most challenging within the family life cycle (Carpenter & Donohue, 2006; Fine, 2014). Parenting problems can be more severe in families that are in crisis due to poverty and family stressors (Cowan & Hetherington, 2013; Gibson et al., 2015; Fine, 2014). Oftentimes, these parents do not have the skills to parent effectively (Slatcher & Trentacosta, 2012; Strickland & Samp, 2013). Since the early 1970s, a plethora of parenting research (e.g., Baumrind, 1971, 1985, 1991; Bolkan et al., 2010; Brotman et al., 2008, 2011; Carpenter & Donohue, 2006; CPPRG, 1995, 1999; Conger et al., 2002; Dishion & Stormshak, 2007; Greeff, 2013; Shetgiri et al., 2012; Slatcher & Trentacosta, 2012; Wandersman, 1980, 1982) has been devoted to examining specific parent variables that impact – both positively and negatively – child problem behaviors. These factors are (a) parent psychological functioning; (b) parenting styles; and (c) parenting practices. Moreover, many parents often face parenting issues and problems, not only resulting from the environment in which they live, their circumstances, and their own family history, but also in response to their child and his or her temperament and personality (Dallos & Draper, 2010; Meyer et al., 2013). Research has documented that parents often face

great difficulty in parenting a child with difficult temperaments and/or who show aggression and problem behaviors, especially early in childhood (Caraasco et al., 2009; Gavazzi, 2011).

Nonetheless, parenting is an essential factor in the prevention and treatment of child behavioral problems: parents are the “key players” in their child’s development (Toldson & Lemmons, 2011, p. 237). There are countless parenting programs available to parents that have shown some level of effectiveness, with some showing improvements only in parent behavior and/or small changes in child behavior (Besser et al., 2009; Dodge, 2001; Layzer et al., 2001; Smith et al., 2010; Webster-Stratton et al., 2001). Results from studies on parenting programs have suggested that parenting education that occurs during the early childhood period is most effective in enhancing parenting psychological functioning, parenting styles, and parental attitudes and behaviors and in reducing child aggression (Dodge, 2011; Hindman et al., 2012; Knafo & Plomin, 2006; Smith et al., 2010; Stagner, 2009).

This study focuses on the Nurtured Heart Approach (NHA), a parenting program that has shown to enhance parental attitudes and perceptions of child strengths (e.g., Brennan & Hektner, 2012a, 2012b; Glasser, 1999, 2007; Taperek & Ruoff, 2009). This study will examine whether empirical evidence can corroborate the prior evidence of enhancing positive parent and child behaviors, the parent-child relationship, and the child’s self-esteem when using NHA in a parenting group. The methodological approach used in this study to assess the efficacy of the NHA program on parent and child outcomes is discussed in the following chapter.

## CHAPTER III

### METHODS

The purpose of this quantitative study was to test the effectiveness of the Nurtured Heart Approach (NHA) parent education intervention, using 2015 NHA archival data from Dr. Joel Hektner, PhD, Professor of Psychology, North Dakota State University. This study had two goals. The first goal was to determine if the 219 intervention parents of children ages 5 to 8 showed significant increases in perceived parenting confidence, increased use of appropriate discipline, and perceived improvement in the target's child interpersonal strengths from participating in the NHA program. The second study goal was to determine if a matched group of 31 NHA intervention parents had significantly higher parenting confidence, use of appropriate discipline, and parent perceptions of child interpersonal strengths posttest mean scores as compared to 31 control parents.

The purpose of this chapter is to present and explicate the methodology of the study. The chapter is delineated into sections. The first sections concern the respective study research questions, corresponding null and alternative hypotheses, and a review of the quasi-experimental research design utilized in this study. A presentation of the study variables follows; in this section, the NHA program is comprehensively explained, as are the operational definitions of the study variables. The subsequent sections review

information on study participants, results from two *post hoc* power analyses, study procedures, and overall methods of the study, including data analysis. A summary concludes the chapter.

### **Research Questions**

The study had six research questions, three of each that corresponded with the two study goals. The first three research questions aligned with the first study goal of determining if significant pretest to posttest increases in parenting confidence, parent use of appropriate discipline, and parent perception of child interpersonal strengths emerged among the 219 Caucasian parents with children, ages 5 to 8, who participated in the NHA program in 2015. The last three questions aligned with the second study goal on whether significant differences in parenting confidence, parent use of appropriate discipline, and parent perception of child interpersonal strengths emerged at posttest between 31 control condition parents and a matched sample of 31 intervention parents, both of whom had children, ages 5 to 8. Statistical tests showed that parent gender, child gender, and child age were not significantly associated with the dependent variables of parenting confidence, parent use of appropriate discipline, and parent perception of child interpersonal strengths. As such, the study variables were the same for both study goals: the NHA intervention was the independent variable and the dependent variables were parenting confidence, parent use of appropriate discipline, and parent perception of child interpersonal strengths. A series of repeated-measures ANOVAs were conducted for the first research goal while a series of one-way ANOVAs were conducted for the second research goal.



### **Research Question 1**

Is there a statistically significant increase in parenting confidence, as measured by the PRQ parenting confidence subscale, upon completion of the 6-week NHA parenting intervention, among parents in the intervention condition?

**H<sub>10</sub>.** There is not a statistically significant pre- to post-intervention increase in parenting confidence, as measured by the PRQ parenting confidence subscale, upon completion of the 6-week NHA parenting intervention, among parents in the intervention condition.

**H<sub>1a</sub>.** There is a statistically significant pre- to post-intervention increase in parenting confidence, as measured by the PRQ parenting confidence subscale, upon completion of the 6-week NHA parenting intervention, among parents in the intervention condition.

### **Research Question 2**

Is there a statistically significant increase in parent use of appropriate discipline, as measured by the PDS appropriate discipline subscale, upon completion of a 6-week NHA parenting intervention, among parents in the intervention condition?

**H<sub>20</sub>.** There is not a statistically significant pre- to post-intervention increase in parent use of appropriate discipline, as measured by the PDS appropriate discipline subscale upon completion of a 6-week NHA parenting intervention, among parents in the intervention condition.

**H<sub>2a</sub>.** There is a statistically significant pre- to post-intervention increase in parent use of appropriate discipline, as measured by the PDS appropriate discipline subscale

upon completion of a 6-week NHA parenting intervention, among parents in the intervention condition.

### **Research Question 3**

Is there a statistically significant increase in parent perception of child interpersonal strengths, as measured by the BERS-2 interpersonal strengths subscale, upon completion of a 6-week NHA parenting intervention, among parents in the intervention condition?

**H<sub>3o</sub>.** There is not a statistically significant pre- to post-intervention increase in parent perception of child interpersonal strengths, as measured by the BERS-2 interpersonal strengths subscale, upon completion of a 6-week NHA parenting intervention, among parents in the intervention condition.

**H<sub>3a</sub>.** There is a statistically significant pre- to post-intervention increase in parent perception of child interpersonal strengths, as measured by the BERS-2 interpersonal strengths subscale, upon completion of a 6-week NHA parenting intervention, among parents in the intervention condition.

### **Research Question 4**

Is there a statistically significant difference in parenting confidence, as measured by the PRQ parenting confidence subscale, upon completion of the 6-week NHA parenting intervention, between parents in the NHA intervention condition versus parents in the control condition?

**H<sub>1o</sub>.** There is not a statistically significant difference in parenting confidence, as measured by the PRQ parenting confidence subscale, upon completion of the 6-week

NHA parenting intervention, between parents in the NHA intervention condition versus parents in the control condition

**H<sub>1a</sub>.** There is a statistically significant difference in parenting confidence, as measured by the PRQ parenting confidence subscale, upon completion of the 6-week NHA parenting intervention, between parents in the NHA intervention condition versus parents in the control condition.

### **Research Question 5**

Is there a statistically significant difference in parent use of appropriate discipline, as measured by the PDS appropriate discipline subscale, upon completion of a 6-week NHA parenting intervention, between parents in the NHA intervention condition versus parents in the control condition?

**H<sub>2o</sub>.** There is not a statistically significant difference in parent use of appropriate discipline, as measured by the PDS appropriate discipline subscale, upon completion of a 6-week NHA parenting intervention, between parents in the NHA intervention condition versus parents in the control condition.

**H<sub>2a</sub>.** There is a statistically significant difference in parent use of appropriate discipline, as measured by the PDS appropriate discipline subscale, upon completion of a 6-week NHA parenting intervention, between parents in the NHA intervention condition versus parents in the control condition.

### **Research Question 6**

Is there a statistically significant difference in parent perception of child interpersonal strengths, as measured by the BERS-2 interpersonal strengths subscale,

upon completion of a 6-week NHA parenting intervention, between parents in the NHA intervention condition versus parents in the control condition?

**H<sub>3o</sub>.** There is not a statistically significant difference in parent perception of child interpersonal strengths, as measured by the BERS-2 interpersonal strengths subscale, upon completion of a 6-week NHA parenting intervention, between parents in the NHA intervention condition versus parents in the control condition.

**H<sub>3a</sub>.** There is a statistically significant difference in parent perception of child interpersonal strengths, as measured by the BERS-2 interpersonal strengths subscale, upon completion of a 6-week NHA parenting intervention, between parents in the NHA intervention condition versus parents in the control condition.

### **Research Design**

This was a quantitative study that utilized two different quasi-experimental research designs in accordance with the two study goals, which were attained using 2015 archival data from Joel Hektner, Ph.D., Professor of Psychology, North Dakota State University. The types of research designs that fall under the umbrella of quasi-experimental are those in which the researcher cannot randomly select study participants from the population nor can he/she randomly assign study participants to experimental or control conditions (Grabbe, 2015; Huitema, 2011). Random selection and random assignment to study conditions defines an experimental research design. Causality can only be determined using an experimental research design where random selection and random assignment to conditions are applied. As this study utilized a quasi-experimental study, causality cannot be inferred, which is a disadvantage of this type of research (Grabbe, 2015; Huitema, 2011).

There are many types of quasi-experimental designs, with differences primarily focusing on the presence or absence of a control condition (Grabbe, 2015; Huitema, 2011). Single-group quasi-experimental research designs are used when the researcher can only examine within-group changes, or changes from pretest to posttest among participants in an intervention condition. Between-group quasi-experimental research designs are used when the researcher can analyze differences at posttest between participants in an intervention condition(s) and those in a control condition(s) (Grabbe, 2015; Huitema, 2011). The following sections presented the specific research designs utilized in this study in accordance with the two study goals.

### **Study Goal 1: Research Design**

The first study goal was to determine if the 219 Caucasian parents who participated in the NHA intervention displayed significantly higher pretest to posttest parenting confidence, parent use of appropriate discipline, and parent perception of child interpersonal strengths scores. A single-group quasi-experimental pretest-posttest research design was employed to achieve the first goal of the study. The single-group pretest-posttest research design can be illustrated using Steven's (2009) notation as:

$$O_1 X O_2$$

Where:

$O_1$  is the pretest;

X is the intervention; and

$O_2$  is the posttest.

## **Study Goal 2: Research Design**

The second study goal was to determine if 31 control condition parents and 31 matched intervention parents had significantly different parenting confidence, parent use of appropriate discipline, and parent perception of child interpersonal strengths scores at posttest. The achievement of the study's second goal necessitated the use of a two-group quasi-experimental research design. In accordance with Stevens (2009) the two-group pretest-posttest research design can be denoted as:

$$O_{I1} \quad X \quad O_{I2}$$
$$O_{C1} \quad O_{C2}$$

Where:

$O_I$  is the intervention group;

$O_c$  is the control group;

$O_1$  is the pretest;

$X$  is the intervention; and  $O_2$  is the posttest.

## **Study Variables**

This study, for both of its goals, has one independent variable: the NHA parenting program. There are three dependent variables: (a) parenting confidence, (b) parent use of appropriate discipline, and (c) parent perception of child interpersonal strengths. For the first study goal, child gender was controlled for statistically, and thus was a covariate. Parent gender, child gender, and child age were not significantly associated with the dependent variables, and thus were not included in analyses for hypothesis testing. In the sections that follow, the operational definitions of these variables are reviewed.

**Independent Variable: NHA Intervention**

The intervention is the Nurtured Heart Approach (NHA) parent education workshop, which will be facilitated by NHA-certified trainers. The NHA workshops for parents are led by trained trainers and are structured as a 6-week program, with one session that lasts 1½ hours offered per week (Glasser & Easley, 2008). The participants will be parents/guardians who participate in a Nurtured Heart Approach (NHA) workshop. In the following sections, the NHA workshop sessions are described.

**Description of the NHA intervention.** The NHA is a parent education intervention aimed at enhancing the parent-child relationship (Glasser & Easley, 2008). While the NHA was initially developed for parents who had children with behavioral diagnoses, including ADHD, autism, oppositional defiant disorder, NHA has shown to effectively enhance behaviors in children without such diagnoses and has been utilized in a variety of settings with diverse groups of parents and children (Ahmann, 2014). Many school systems have adopted the NHA workshop for the parents of students (Ahmann, 2014).

The foundation of the NHA is behavior modification of a child's negative behaviors via the "re-training" of parents to replace punishment techniques or positive reinforcement of their child's negative behaviors with positive reinforcement of their child's positive behaviors (Glasser & Easley, 2008). The NHA program centers on building parent skills to first neutralize negative behaviors in the child and then build upon the child's positive behaviors using positive reinforcement techniques, parental modeling, and the establishment of fair and consistent boundaries with the child (Glasser

& Easley, 2008). The NHA program workshop sessions are structured around the NHA's *Three Stands*.

***Stand one.*** The remainder of the first session and the second session of the NHA intervention addresses *Stand One: Refusal to Energize Negativity*. Glasser and Easley (2008) posited that parents of children with problem behaviors tend *energize negativity*, that is, place substantial “energy, attention, and intensity” on their child’s problem behaviors by continually focusing on and drawing the child’s attention to their negative behavior while ignoring any positive behavior their child may display (Ahmann, 2014, p. 40). Utilizing experiential activities and homework assignments, the NHA facilitator focuses on increasing parents’ awareness and understanding of *energizing negativity* via their use of punishment and negative feedback and helping parents to understand that focusing on the negative aspects of their child’s behavior can ultimately increase problem behaviors in their children (Ahmann, 2014).

NHA trainers may assign homework to build parents’ awareness of their energizing negativity behaviors (Ahmann, 2014). One homework assignment is *Exploring the Role of Director*. For this assignment, parents are asked to carry a notebook for one day, and in this notebook, they mark an X every time they point out a negative behavior in their child and a 0 every time they point out a positive behavior in their child. At the end of the day, parents count up the number of Xs and 0s. This homework assignment is then discussed in session two or possibly session three of the NHA workshop.

***Stand two.*** Stand Two focuses on teaching skills to parents that promote the energizing of their child’s positive behaviors. The third through fifth workshop sessions



focus on the three steps involved in building these skills for *Stand Two: Energize the Positive* (Ahmann, 2014). The third session addresses *active recognition*, the first step of Stand Two. Active recognition entails “a parent simply noticing and stating in detail” the positive behavior of the child using “no judgment or evaluation” (Ahmann, 2014, p. 40). Glasser and Easley (2008) posited that parents of children with problem behaviors often have difficulty focusing on their child’s positive behaviors and as such, a substantial amount of time during the second session is spent on the NHA facilitator working with parents to develop strategies of active recognition that their child perceives as authentic and affirming.

The fourth workshop session builds upon active recognition strategies to promote *experiential recognition*, the second step of Stand Two (Ahmann, 2014). During this session, the facilitator works with parents to (a) elaborate upon active recognition statements by providing to their children specific times and examples when the child behaved in a positive manner, and (b) effectively use these statements when the child is not engaging in problem behaviors. NHA trainers recognize that children with problem behaviors may rarely engage in positive behaviors. In the fifth workshop, they work with parents to create opportunities for positive child behaviors via the third step of Stand Two, *proactive recognition*. Parents engage in proactive recognition with their child by making a clear request that their child perform a certain activity and providing positive feedback when the child has completed that request. During this fifth session, the NHA facilitator works with parents to focus on (a) *setting the bar low*, that is, recognizing positive behaviors no matter how small; and (b) *designing situations for*

*success*, that is, creating opportunities in day-to-day situations for the child to demonstrate positive behaviors (e.g., helping to set the table, putting groceries away).

***Stand three.*** The sixth and last session of the NHA workshop focus on *Stand Three: Provide and Uphold Limits* (Ahmann, 2014). Glasser and Easley (2008) noted that parents of children with problem behaviors are often not consistent in recognizing any positive behavior, no matter how small, nor using positive reinforcement to increase their child's positive behaviors. During the last workshop, the NHA facilitator uses role modeling and experiential activities to build parenting skills to enhance the likelihood that parents will continue to use positive reinforcement techniques to promote their child's positive behavior. Time is also spent on enhancing parents' communication with their child. Time is allotted during the last session for parents to complete NHA posttest surveys.

### **Dependent Variables**

**Parenting confidence subscale of the Parenting Relationship Questionnaire (PRQ).** The 20-item PRQ parenting confidence subscale will be used to measure parenting confidence (Kamphaus & Reynolds, 2006). Items are scored using a Likert-type scale from 0 = never to 3 = always. Example items on this subscale include "I make good parenting decisions" and "I am a good parent to my child." The 20 items are summed to compute the subscale score. The PRQ parenting confidence subscale score is computed as a standardized *t*-score, with a mean of 50 and a standard deviation of 10, and parenting confidence subscale scores can range from 0 to 100. A higher score indicates a higher degree of parenting confidence (Kamphaus & Reynolds, 2006).

Psychometric testing of the PRQ has indicated that this subscale demonstrates strong convergent validity, having significant associations with other measures of parenting confidence, such as the Parenting Sense of Competence Scale and with the subscales of satisfaction with parenting and parental involvement subscales on the Parent Child Relationship Inventory (Hurley, Huscroft-D'Angelo, Trout, Griffith, & Epstein, 2014; Kamphaus & Reynolds, 2006; Mowder, Shamah, & Zeng, 2010). Discriminant validity of the parenting confidence subscale has been supported in studies that found differences in parenting confidence levels between parents participating in an parenting intervention and parents not in such programs (Bloomquist, August, Lee, Biehler, & Jensen. 2012; Lewallen & Neece, 2015). The inter-item reliability of the parenting confidence subscale is very good, with Cronbach's alphas ranging in the mid to high .80s (Hurley et al., 2014; Kamphaus & Reynolds, 2006). The Cronbach's alphas were .85 at pretest and .84 at posttest in this study.

**Appropriate Discipline subscale of the Parent Discipline Scales (PDS).** The three-item appropriate discipline subscale will be used to measure parents' use of appropriate verbal discipline (Conduct Problems Prevention Research Group, 2001). The three items on this subscale include (a) "I yell at/scold child," (b) "I respond negatively to child," and (c) "calmly discuss what happened," reverse-scored. These items are scored using a 5-point Likert scale, from 1 = *strongly disagree* to 5 = *strongly agree*. The three items are summed to create the total appropriate discipline subscale score. The PDS appropriate discipline subscale score can range from 3 to 15 points, with a *higher* subscale score indicating *lower* use of appropriate discipline.

The appropriate discipline subscale of the PDS has been used extensively in literature evaluating the efficacy of the Fast Track conduct problems prevention program (Conduct Problems Prevention Research Group, 2002; Child Trends, 2015). Its criterion-related validity has been confirmed in studies documenting significant associations with parenting stress (negative association) and parenting competence (Frick, Ray, Thornton, & Kahn, 2014; Yap & Jorm, 2015). The inter-item reliability of the parenting confidence scale is excellent, with Cronbach's alphas in the low .90s (Conduct Problems Prevention Research Group, 2002; Child Trends, 2015).

The Cronbach's alpha was calculated for the PDS appropriate discipline subscale. The 3-item PDS appropriate discipline subscale had an unacceptable Cronbach's alpha of .37. The removal of item 3 ("Calmly discuss what happened") resulted in Cronbach's alpha of .67 at pretest and .65 at posttest. Therefore, the scale was computed as having 2 items, item 1 ("Respond with the same negativity") and item 2 ("Yell or scold"). Scores on this 2-item subscale could range from 2 to 10 points. A *higher* score on the PDS appropriate discipline subscale indicates *lower* use of appropriate verbal discipline.

**Interpersonal strengths subscale of the Behavioral and Emotional Rating Scale (BERS-2).** In this study, the 8-item BERS-2 interpersonal strengths subscale will be used to measure parents' perception of their targeted child's interpersonal strengths (Buckley & Epstein, 2004). The BERS-2 interpersonal strengths subscale measures "a youth's ability to control his or her emotions or behaviors in social situations" (Furlong et al., 2007, p. 703). Items on this subscale include "My child is kind toward others" and "My child can control his/her behavior." Subscale items are scored using a Likert-type

scale from 0 = *not at all like my child* to 3 = *very much like my child*. Items are summed to compute the subscale score, which can range from 0 to 24. A higher score on the subscale indicates more pronounced parent perceptions of child interpersonal strengths (Furlong, 2007).

Validation studies (e.g., Benner, Beaudoin, Mooney, Uhing, & Pierce, 2008; Buckley & Epstein, 2004; Epstein, Mooney, Ryser, & Pierce, 2004) have indicated that the subscale has good convergent validity, demonstrating significant associations with measures of child cooperation, assertion, empathy, self-control, and use of positive social skills. Moreover, the discriminant validity of the interpersonal strengths subscale was supported in a study by Buckley and Epstein (2004, p. 25), who found that youth with emotional and behavioral “disturbances” had significantly lower interpersonal strengths than did youth without these disturbances. The inter-item reliability of this measure has good been, with Cronbach’s alphas ranging from the low .70s to the mid .80s. The Cronbach’s alphas in this study were .68 at pretest and .65 at posttest.

### **Potential Covariates**

**Parent gender.** Parent gender was a dichotomous variable coded where 1 = female and 2 = male.

**Child gender.** Child gender was coded in the dataset as dichotomous variable where 1 = female and 2 = male.

**Child age.** Child age was an interval variable and could range from 5 to 8 years.

### **Participants**

The study utilized archival data from Caucasian parents who participated in a 2015 North Dakota State University study examining parenting outcomes across two

conditions, the NHA program and a control condition. The data came from one parent only; that is, just one parent participated in the intervention and answered study surveys. The study sample groups and size differed by study research goals. The first research goal, which pertained to assessing whether NHA intervention parents displayed significant pretest to posttest increases on parenting outcomes, was met utilizing the sample of 219 participants who participated in the intervention. The second goal of the study assessed whether parents in the NHA intervention versus control conditions reported significantly different posttest scores on parenting outcomes. This goal was met by utilizing the 31 control condition parents and 31 intervention parents matched to those in the intervention condition on the variables of parent gender and child gender and age. Two *post hoc* power analyses determined the degree of power achieved for the two study goals.

### **Power Analysis 1: Intervention Condition Pretest to Posttest**

The first research goal was met by conducting a series of repeated-measures analyses of variance (ANOVAs). A *post hoc* power analysis was conducted via G\*Power (Faul, Erdfelder, Lang, & Buchner, 2009) for a repeated-measures ANOVA. The sample size was set to  $N = 219$ . The number of groups was set to 1 (i.e., the intervention group) and the number of measurements was set to two (i.e., pretest and posttest). Correlation among pretest and posttest variables was set to  $r = .50$ . As meta-analysis and review of literature studies have documented moderate-to-large effect sizes in studies evaluating parenting program (Chen & Chan, 2015; Knerr, Gardner, & Cluver, 2013; Piquero et al., 2016), the effect size was set to moderate-to-large, Cohen's  $f =$

0.365. Significance was set at  $\alpha = .05$ . The sample of  $N = 219$  NHA intervention participants resulted in a power of .999, as seen in Figure 4.

<b>F tests - ANOVA: Repeated measures, within factors</b>		
<b>Analysis:</b> Post hoc: Compute achieved power		
<b>Input:</b>	Effect size $f$	= 0.365
	$\alpha$ err prob	= 0.05
	Total sample size	= 219
	Number of groups	= 1
	Number of measurements	= 2
	Corr among rep measures	= 0.5
	Nonsphericity correction $\epsilon$	= 1
<b>Output:</b>	Noncentrality parameter $\lambda$	= 116.71
	Critical F	= 3.88
	Numerator df	= 1.00
	Denominator df	= 218
	Power (1- $\beta$ err prob)	= .999

Figure 4. Power analysis: Repeated-measures ANOVA

## Power Analysis 2: Intervention versus Control Conditions Posttest Differences

A *post hoc* power analysis was conducted via G\*Power (Faul et al., 2009) for a one-way ANOVA. The sample size was set to 62 ( $n = 31$  for the intervention and  $n = 31$  for the control groups) and the number of groups was set to two (i.e., the intervention and control group). Meta-analysis and review of literature studies have documented moderate-to-large effect sizes in studies evaluating parenting program (Chen & Chan, 2015; Knerr et al., 2013; Piquero et al., 2016). The effect size was set to a lower moderate-to-large effect size of Cohen's  $f = 0.365$ . Significance was set at  $\alpha = .05$ . The results from the power analysis determined the power to be .90. Figure 5 provides the output of the G\*Power *post hoc* power analysis.

<b>F tests - ANOVA:</b> Repeated measures, between factors		
<b>Analysis:</b> Post hoc: Compute achieved power		
<b>Input:</b>	Effect size f	= 0.365
	$\alpha$ err prob	= 0.05
	Total sample size	= 62
	Number of groups	= 2
	Number of measurements	= 2
<b>Output:</b>	Corr among rep measures	= 0.5
	Noncentrality parameter $\lambda$	= 11.01
	Critical F	= 4.00
	Numerator df	= 1.00
	Denominator df	= 60.00
	Power (1- $\beta$ err prob)	= 0.90

Figure 5. Power analysis: One-way ANOVA

### Procedure

Data analysis commenced once the investigator obtained approval from The University of Akron Institutional Review Board (IRB). This study utilized 2015 archival NHA program data from the Psychology Department at North Dakota State University. The owner of the data, Joel Hektner, Ph.D., Professor of Psychology, approved the use of the dataset for this study. He emailed the investigator the dataset in an Excel spreadsheet; the data did not contain any information that could identify study participants.

The investigator downloaded the data file from her email from Dr. Hektner, who collected the data in 2015, and transferred the data file as an Excel spreadsheet into a SPSS 24.0 data file, considered the *Master Data File*. The *Master Data File* had data from 307 parents, 250 of whom were in the NHA intervention group and 57 of whom



were in the control group. The investigator then created two data files that corresponded to the two study goals.

The first data file, called *Intervention Group*, was comprised only of the 219 NHA intervention parents who had children between the ages of five and eight. To derive this data file of cases, the investigator first made a copy of the *Master Data File*, which she labeled as *Master Data File 2*. Using the *Master Data File 2*, the investigator removed the 57 cases where the parent was in the control group and the 31 NHA intervention cases where the parents who had children under the age of five and older than the age of eight. The final sample of 219 NHA intervention cases comprised 87.6% of the total 250 NHA intervention cases in the original sample and 71.3% of the total sample of 307 cases (i.e., parents in both the intervention and control groups). The data, both pretest and posttest, for the 219 intervention parents were complete (i.e., there were no missing data with the exception of 10 cases in which gender was not provided) and contained no outliers. The investigator saved this data file, called *Intervention Group*, which she used to conduct analyses for the first study goal.

The investigator then utilized SPSS 24.0 software to create the data file, called *Intervention and Control Group (Matched)*, for the second research goal. She made a copy of the *Master Data File*, which she named *Master Data File 3*. Using the *Master Data File 3* as the resource data file, she first removed all 250 cases that pertained to the NHA intervention group and saved this file, which she labeled *Control Group Data File*. Using the *Control Group Data File*, the investigator removed 26 cases in which the control parent had a child under the age of 5 or over the age of 8, resulting in 31 cases, which comprised 54.4% of the total control cases and 10.1% of all original 307 cases.

The investigator then copied the *Intervention Group* data file, which contained data from the 219 NHA intervention parents who had children between the ages of five and eight, and merged this copied file with the *Control Group Data File*. The investigator then saved this file, which contained data from the 31 control parents and the 219 intervention parents who had children between the ages of 5 and 8. The investigator used the SPSS 24.0 function *Compare Cases* to select 31 intervention cases from the total of 219 intervention cases that matched the 31 control cases on baseline parenting confidence, use of appropriate discipline, and perception of child interpersonal strengths scores, parent gender and child age. There were not enough NHA intervention parents to also match the two groups on child gender. She saved this new file, which she labeled *Intervention and Control Group (Matched)*. Data from the 31 NHA intervention and the 31 control parents were complete (i.e., there were no missing data) at both pretest and posttest. There were no outliers in each group.

### **Data Analysis**

The dataset contained full subscale/scale data, and the inter-item reliabilities have already been computed for the subscales/scales and were reported in this chapter. The data sets contained no missing data, and as such, there was no need to impute data. Data were from one parent only. The use of data from just one parent may have influenced findings. The use of self-report data from one parent may have comprised study findings, for example, by increasing the likelihood of the social desirability bias. It is possible that the other parent may have had different perceptions of their parenting and the target child and in turn answered the survey questions differently from their spouse.

The data analyses for the study were conducted sequentially, in accordance with the two study research goals, and these analyses were conducted in an orderly fashion. The investigator first calculated the descriptive statistics (i.e., frequencies and percentages for categorical variables; mean, standard deviation, and minimum and maximum scores for continuous variables) on the demographic data of the respective participants. She followed these sets of analyses by computing the scales for the pretest and posttest variables and conducting descriptive statistics (i.e., mean, standard deviation, and minimum and maximum scores) on these scales.

The investigator conducted statistical analyses to test for covariates and to test for assumptions of ANOVAs (repeated-measures and mixed) prior to hypothesis testing; these analyses were done separately for each data set and study goal. Using the intervention data file, the investigator conducted independent-samples *t*-tests to assess if any posttest differences emerged across parent gender and child gender categories, respectively. Pearson bivariate correlations were conducted between the variables of child age and the three posttest scales.

Using the data file that contained data from the intervention and control groups, the investigator conducted three independent samples *t*-tests to determine if there were significant dependent variable differences between girls and boys. None of the results were significant. As such, three repeated-measures ANOVAs and three between-within (mixed) ANOVAs were conducted for hypothesis testing. Due to the relatively large number of statistics conducted for each of the two research goals, a Bonferroni-corrected *p*-value was utilized to determine significance. The *p*-value used was .05 (significance

level)/3(number of research questions per study goal) or  $p < .017$ . Results in this study were considered significant if  $p < .017$ .

The investigator then conducted tests to determine if the data met assumptions for ANOVA. There are three assumptions that need to be met for within-group, between-group, and between-within group (mixed) ANOVAS (Warner, 2014). These are (a) adequate power (at .80), (b) dependent variable normality in the distribution of scores, and (c) lack of multicollinearity between dependent variables (Warner, 2014). The investigator restated the findings from the *post hoc* power analyses to provide evidence of sufficient power. The investigator tested for violations of the assumption of variable normality by calculating  $z_{\text{skewness}}$  values for each data set of dependent variables. A  $z_{\text{skewness}}$  value that is greater than  $\pm 3.29$  indicates non-normality (Kim, 2013; Warner, 2014). The investigator examined the degree of association among the dependent variables by computing Pearson bivariate correlations and variance inflation factors (VIFs). In accordance with Garson (2012), a linear regression with the three dependent variables as predictors and a randomly selected variable as the dependent variable was conducted to derive the VIFs. Pearson bivariate correlations greater than  $r = \pm .80$ ,  $p < .001$ , and VIFs that are greater than 2.50 indicate multicollinearity (Garson, 2012).

There are a few assumptions that are specific to ANOVAs that have a repeated-measures component (which include repeated-measures and between-within [mixed] ANOVAs) (Abdi, 2010; Garson, 2012). One assumption is sphericity, which is analogous to the assumption of homogeneity of variances for between-groups ANOVAs (the equality of variances assumption is not relevant to repeated-measures ANOVA; Abdi, 2010; Qu, 2012). The sphericity assumption is met if “the correlation ... between

two treatments (conditions) is the same for all pairs of treatments (conditions)” (Abdi, 2010, p. 1). A significant Mauchly’s  $W$  test of sphericity indicates a violation of this assumption (Abdi, 2010; Qu, 2012). The assumption of sphericity is, however, only pertinent when using study data that has been collected at three or more time-points (e.g., pretest, posttest, post-posttest) (Abdi, 2010; Enders, 2003; Qu, 2012). The sphericity assumption is not relevant to pretest-posttest data, in which data are collected twice – at pretest and at posttest – as there is only one set of difference values (i.e., the difference in variances between pretest and posttest scores) for the dependent variables (Abdi, 2010; Qu, 2012). As such, the assumption of sphericity was not relevant to this study.

Due to its between-groups component, a between-within (mixed) ANOVA has one additional assumption, equality of variances, or similar distributions of dependent variable scale scores across the between-groups conditions (DasGupta, 2014), which, in this case, were the intervention and control conditions. Levene’s tests of equality of variances were conducted to determine if the equality of variances assumption was met. Significant Levene’s tests (at  $p < .05$ ) indicate that the dependent variable variances significantly differ across the intervention and control group and that the assumption of equality of variances is violated. The between-within (mixed) ANOVA is robust against a violation of the equality of variances assumption, should Levene’s tests be found significant (at  $p < .05$ ) (DasGupta, 2014; Nimon, 2012).

Once the assumptions of ANOVA were tested, the investigator conducted the respective ANOVA analyses to address the two study goals. ANOVA results included  $F$ -values, with  $p < .017$ , based on a Bonferroni correction. The investigator reported the

Cohen's  $d$  as the effect size. Cohen's  $d$ , a measure of effect size, was calculated using this formula:  $M_1 - M_2 / s_{\text{pooled}}$ , where  $s_{\text{pooled}} = \sqrt{[(s_1^2 + s_2^2) / 2]}$  (Babbie, 2015). A Cohen's  $d$  of .20 is a small effect size, Cohen's  $d$  of .50 a moderate (medium) effect size, and a Cohen's  $d$  of .80 a large effect size (Babbie, 2015).

### **Internal Validity and External Validity**

The study methodology, from the initial selection of instruments and collection of data to the statistical analyses, greatly impacts the validity of a study (Drost, 2011; LoBiondo-Wood & Haber, 2014). As pretest-posttest quasi-experimental designs have inherent threats to validity that can limit the ability to draw correct inferences (Stevens, 2009), quantitative studies that utilize such designs should optimally address threats to internal and external validity as well as statistical conclusion validity (Drost, 2011). This section of the chapter introduces and defines internal validity, statistical conclusion validity, and external validity and presents the ways in which the researcher attempted to reduce specific threats to these three types of validity.

#### **Internal Validity**

Internal validity refers to the extent that the researcher can state that a relationship exists between the independent and dependent variables (Campbell & Stanley, 1963; Drost, 2011). In relation to this study, it refers to the extent that the NHA program did, in fact, influence changes in the dependent variables. Threats to internal validity are participant or study factors that compromise the researcher's ability to state that a relationship exists between the independent and dependent variables (Campbell & Stanley, 1963; Drost, 2011). Some threats to internal validity include (a) history (i.e., events occurring at the same time as the intervention that produce differences in

outcomes); (b) maturation (i.e., developmental changes that may influence responses on the posttest); (c) testing (i.e., the pretest itself may influence responses on the posttest); and (d) confounding variables (i.e., variables other than the independent variable(s) that influence the dependent variables) (Cook & Campbell, 1979).

This study was likely not unduly influenced by these threats to internal validity. It was unlikely that the history threat affected the study: there were no major historical events that occurred in 2015. The maturation threat was not relevant, as parents completed the study questionnaires. The testing threat was minimized by parents completing the posttest six weeks after the pretest. The primary threat to the internal validity of this study was confounding. While not all potential confounds could be measured and analyzed, the researcher did attempt to reduce confound effects by statistically testing if the demographic variables of parent gender, and child gender and age were significantly associated with the dependent variables of parenting confidence, use of appropriate discipline, and perceived child interpersonal strengths posttest scores. Variables found to be significant were included as covariates in analyses for hypothesis testing. There was no need to include these variables in analyses if results yielded no significant findings.

Another threat to the internal validity of the study was the use of self-report instruments to gather data. However, the use of self-report surveys is consistent with previous research on this topic, and research on the efficacy on parenting programs often includes self-report surveys as the main assessment strategy (Eyberg, 1993b; Lopez et al., 2011). Studies examining child problem behaviors have furthermore shown that scores on self-report surveys as answered by the parent and child are moderately

correlated and scores on self-report surveys as answered by the parent and another adult observer, such as teachers, are strongly correlated (Miller, Martinez, Shumka, & Baker, 2014; van der Ende, Verhulst, & Tiemeier, 2012). Evaluators of prevention and treatment programs often utilize self-report surveys to assess outcome effects, as the surveys are easy to administer, inexpensive, and efficient to use (Rich & Eyberg, 2001).

A threat to internal validity that is associated with the use of self-report surveys is the social desirability bias: parents in this study may have responded to the questionnaire items in such a way to give an appearance of being a “good parent.” Hektner and colleagues at North Dakota State University put into place certain processes in place to help reduce the social desirability bias. One was the use of informed consent, which protected the confidentiality of study participants. Another was the use of identification numbers assigned to participants – and not participant names – to connect pretest and posttest survey responses.

Self-report surveys may also be of poor psychometric quality - poor validity and reliability - which not only affects the internal validity of the study but also impacts the statistical conclusion validity of the study (Drost, 2011; Garcia-Perez, 2012). Statistical conclusion validity pertains to the degree “to which data from a research study [reveals] a link (or lack thereof) between independent and dependent variables” (Garcia-Perez, 2012, p. 1). Poor statistical conclusion can lead to a Type I error, that is, stating that findings were significant (rejecting the null hypothesis) when they were not (Drost, 2011; Garcia-Perez, 2012). The use of “irrelevant, unreliable, or invalid measures” is one of three key threats to statistical conclusion validity, with the others being small sample size and violation of statistical assumptions (Adams, 2008, p. 8). Certain



methodological procedures were implemented to increase the statistical conclusion validity of the study. The researcher sought out and obtained a data set in which the NHA program was evaluated using questionnaires with sound psychometrics and a history of extensive use in empirical studies examining the effects of parenting interventions. Furthermore, the researcher conducted *post hoc* power analyses and determined that the sample sizes in both data sets were large enough to achieve, at the minimum, power of .80.

Another threat to internal validity is reactive effects of testing; in other words, simply by taking a pre-test could differentially influence how participants behave during the intervention and how they respond on the posttest (Campbell & Stanley, 1963). The six-week period between pre- and post-testing likely reduced this threat. Moreover, participants may have responded differently on the survey simply because they were in an intervention, a type of *reactive effects due to the experimental situation* threat to internal validity. The length of the NHA intervention – six weeks – was a potential threat to the internal validity of this study. There is a general concern among interventionists and practitioners that “no one can predict how long it will take for ... parents to develop sufficient capacity to meet their children’s needs” (Ward, Brown, & Hyde-Dryden, 2014, p. 8). Changes in parenting knowledge and attitudes occur before (and lead to) changes in parenting behaviors; as such, shorter interventions will be more likely to affect cognitions and attitudes and less likely to influence behaviors of parent (National Academy of Sciences, 2016).

## **External Validity**

External validity refers to the ability to generalize findings from this study to other populations, situations/contexts, or times (Campbell & Stanley, 1963). External validity is a concern in this study with regard to the study sample and how representative they are of the population of parents who participate in the NHA program. The NHA workshop was initially developed for parents with children who had a diagnosis or clinical-level symptoms of ADHD, autism, oppositional defiant disorder, and related disorders (Ahmann, 2012). However, the program has evolved to include all parents (Ahmann, 2012). The data used in this study come from parents who volunteered to participate in the NHA program. These parents did not display significant dysfunction nor did their children have developmental disabilities or mental health diagnoses. One threat to external validity is volunteer bias, as it has been documented that volunteers have different characteristics as the general population (Rosenthal & Rosnow, 2008). Furthermore, data from parents who *completed* the NHA program will be analyzed in this study. It is a possibility that parents who willingly attend and complete the NHA workshop differed from parents who do not; for example, they may have had more motivation, social support, and self-efficacy to change their parenting behaviors or may have had a child who displayed relatively low or extremely high maladaptive behaviors.

## **Summary**

This chapter was an overview of the research methodology for the study. The topics addressed in sections of this chapter were the proposed study research design and research question. In this chapter, sections also contained topics as they related to the research participants, sampling procedure, instruments, data collection, and the proposed

data analyses to be utilized in this study. In addition, study limitations and threats to the internal and external validity were reviewed. The chapter that follows, Chapter IV, focuses on the statistical findings of the study.

## CHAPTER IV

### RESULTS

This dissertation, which utilized 2015 archival evaluation data on the NHA intervention, had two study goals. The first goal was to determine if there were statistically significant pre- to post-intervention increases in parenting confidence, use of appropriate verbal discipline, and parent perceptions of child interpersonal strengths among 219 parents with children, ages 5 to 8, who participated in the NHA intervention in 2015. The goal of the second study goal was to determine if parenting confidence, use of appropriate verbal discipline, and parent perceptions of child interpersonal strengths posttest mean scores were significantly different between 31 NHA and 31 control parents, who were matched on pretest scores, parent gender, and child age (there were not enough intervention parents to match on child gender).

This chapter is divided into three overarching sections. The first section concerns the preparation and cleaning of the data. The second section pertains to the within-group (i.e., NHA intervention pretest to posttest differences) component of the study: in this section the first through third research questions are addressed. The third section concerns the between-group (i.e., NHA intervention as compared to the control group) component of the study, and in this section, the fourth through sixth research questions are addressed. The second and third sections follow the same format.

## **Data Preparation and Cleaning**

The investigator downloaded the data file from her email from Dr. Hektner, who collected the data in 2015, and transferred the data file as an Excel spreadsheet into a SPSS 24.0 data file, considered the *Master Data File*. The *Master Data File* had data from 307 parents, 250 of whom were in the NHA intervention group and 57 of whom were in the control group. The investigator then created two data files that corresponded to the two study purposes.

The first data file, called *Intervention Group*, was comprised only of the 219 NHA intervention parents who had children between the ages of five and eight. To derive this data file of cases, the investigator first made a copy of the *Master Data File*, which she labeled as *Master Data File 2*. Using the *Master Data File 2*, the investigator removed the 57 cases where the parent was in the control group and the 31 NHA intervention cases where the parents who had children under the age of 5 and older than the age of 8. The final sample of 219 NHA intervention cases comprised 87.6% of the total 250 NHA intervention cases in the original sample and 71.3% of the total sample of 307 cases (i.e., parents in both the intervention and control groups). The data, both pretest and posttest, for the 219 intervention parents were complete (i.e., there were no missing data with the exception of 10 cases in which gender was not provided) and contained no outliers. The investigator saved this data file, called *Intervention Group*, which she used to conduct statistical analyses for the first study goal.

The investigator then utilized SPSS 24.0 software to create the data file, called *Intervention and Control Group (Matched)*, for the second research goal. She made a copy of the *Master Data File*, which she named *Master Data File 3*. Using the *Master*

*Data File 3* as the resource data file, she first removed all 250 cases that pertained to the NHA intervention group and saved this file, which she labeled *Control Group Data File*. Using the *Control Group Data File*, the investigator removed 26 cases in which the control parent had a child under the age of 5 or over the age of 8, resulting in 31 cases, which comprised 54.4% of the total control cases and 10.1% of all original 307 cases. The investigator then copied the *Intervention Group* data file, which contained data from the 219 NHA intervention parents who had children between the ages of 5 and 8, and merged this copied file with the *Control Group Data File*. The investigator then saved this file, which contained data from the 31 control parents and the 219 intervention parents who had children between the ages of 5 and 8. The investigator used the SPSS 24.0 function *Compare Cases* to select 31 intervention cases from the total of 219 intervention cases that matched the 31 control cases on baseline parenting confidence, use of appropriate discipline, and perception of child interpersonal strengths scores, parent gender and child age. There were not enough NHA intervention parents to also match the two groups on child gender. She saved this new file, which she labeled *Intervention and Control Group (Matched)*. Data from the 31 NHA intervention and the 31 control parents were complete (i.e., there were no missing data) at both pretest and posttest. There were no outliers in each group.

Repeated-measures and one-way multivariate analyses of variance (MANOVAs) were not able to be conducted as the BERS-2 child interpersonal strengths posttest scores were not significantly associated with PDS use of appropriate verbal discipline posttest scores,  $r(219) = -.082$ ,  $p = .785$ , and therefore could not be treated as a composite variable. Due to the relatively large number of statistics conducted for each

of the two research goals, a Bonferroni-corrected  $p$ -value was utilized to determine significance. The value used was  $p = < .05/3$  or  $p = < .017$ . Results in this study were considered significant if  $p = < .017$ .

### **Study Goal 1: Pretest-to-posttest Differences among NHA Parents**

This section of the results chapter focuses on the first study goal, which examined if 219 of the parents who participated in a 2015 NHA intervention reported pretest to posttest improvement of parenting confidence, use of appropriate verbal discipline, and perceived child interpersonal strengths. This section opens with a summary of participant demographics (i.e., parent gender, child gender, and child age), which is followed by findings from the testing of covariates. Results from the testing of assumptions for a repeated-measures ANOVA are then reviewed. A presentation of findings from the repeated-measured ANOVA, which addressed the first three research questions addressed in this study, follow.

#### **Participant Demographic Descriptive Statistics**

Descriptive statistics for parent and child gender are presented in Table 1. Of the 219 intervention participants, 141 (64.4%) were mothers while 68 (31.1%) were fathers (10 [4.5%] did not provide their gender). Eighty-seven (39.7%) children were girls while 132 (60.3%) were boys. The mean age of the children was 6.34 years ( $Md = 6.00$  years,  $SD = 1.15$  years) and ages ranged from 5.00 to 8.00 years.

Table 1. Descriptive statistics: NHA intervention parent and child gender (N = 219)

Variable	Frequency <i>n</i>	Percentage %
Parent's Gender		
Woman	141	64.4
Man	68	31.1
Not reported	10	4.5
Child's Gender		
Girl	87	39.7
Boy	132	60.3

### Testing of Covariates

A series of independent-samples *t*-tests were conducted to determine whether the dependent variables of parenting confidence, use of appropriate verbal discipline, and parents' perception of child interpersonal strengths posttest scores significantly differed between mothers and fathers and between girls and boys. There were no significant differences between mothers and fathers with regard to parenting confidence (posttest),  $t(207) = -0.01, p = .997$ , use of appropriate verbal discipline (posttest),  $t(207) = 0.13, p = .901$ , or perception of child interpersonal strengths (posttest),  $t(207) = 0.71, p = .477$ . There were no significant differences between girls and boys with regard to parenting confidence (posttest),  $t(217) = 1.41, p = .161$ , use of appropriate verbal discipline (posttest),  $t(217) = -1.75, p = .081$ , or perception of child interpersonal strengths (posttest),  $t(217) = 1.60, p = .111$ .

Three Pearson bivariate correlations were conducted to determine if child age was significantly associated with dependent variables of parenting confidence, use of appropriate verbal discipline, and parents' perception of child interpersonal strengths



posttest scores. Child age was not significantly associated with parenting confidence (posttest),  $r(219) = -.122$ ,  $p = .072$ , use of appropriate verbal discipline (posttest),  $r(219) = .027$ ,  $p = .688$ , or perceived child interpersonal strengths (posttest),  $r(219) = -.015$ ,  $p = .822$ . Due to the lack of significant findings, parent gender, child gender, and child age did not need to be included as covariates in analyses for hypothesis testing.

### **Testing of Assumptions for a Repeated-Measures ANOVA**

A repeated-measures ANOVA has a specific assumption, sphericity (Abdi, 2010; Nimon, 2012). However, this assumption only pertains to repeated-measures analyses that have include three or more time-points, for example, testing participants at pretest, then immediately upon completion of an intervention, and then 6 and 12 months after the completion of the intervention (Abdi, 2010; Nimon, 2012). As this study pertained to data collected at just two time-points, the assumption of sphericity was not relevant. The repeated-measures ANOVA does not have the homogeneity of variances assumption that is required for one-way ANOVA, as there is not a between-group variable (Abdi, 2010; Nimon, 2012).

Three assumptions do need to be met for a repeated-measures ANOVA (Abdi, 2010; Nimon, 2012). The first is adequate power (Abdi, 2010; Nimon, 2012). A *post hoc* power analysis conducted using G\*Power (Faul et al., 2007) was conducted to determine power using the sample size of 219 parents. The significance value was set to  $p < .05$ , the number of groups was set to 1 (i.e., the intervention group), and the number of measurements was set to 2 (i.e., pretest and posttest). Based on findings from meta-analyses conducted on parenting interventions (Chen & Chan, 2015; Knerr et al, 2013; Piquero et al., 2016), the effect size was set to medium-to-large,  $f = .365$ . Results from

the post hoc power analysis showed that the power was .99, well above the required power of .80. The assumption of adequate power was met.

The second assumption for repeated-measures ANOVA is dependent variable univariate normality (Kim, 2013; Warner, 2014). Calculation of  $z_{\text{skewness}}$  values for each posttest variable, the results of which are presented in Table 2, were conducted to test for the assumption of variable normality. A  $z_{\text{skewness}}$  value  $> \pm 3.29$  indicates non-normality (Kim, 2013; Warner, 2014). While the  $z_{\text{skewness}}$  values, as seen in Table 2, were somewhat high, they were all less than  $\pm 3.29$ , indicating that the assumption of normality was met for the three dependent variables.

Table 2.  $Z_{\text{skewness}}$ : PRQ Parenting Confidence, PDS Appropriate Verbal Discipline, and BERS-2 Interpersonal Strengths Posttest Variables- NHA Intervention (N = 219)

Variable	$Z_{\text{skewness}}$
PRQ Parenting Confidence Posttest	-2.05
PDS Appropriate Verbal Discipline Posttest	-2.58
BERS-2 Child Interpersonal Strengths Posttest	2.99

### Repeated-Measures ANOVA: Hypothesis Testing

**Research question 1.** The first research question was, “Is there a statistically significant increase in parenting confidence, as measured by the PRQ parenting confidence subscale, upon completion of the 6-week NHA parenting intervention, among parents in the intervention condition?” Results from the first repeated-measures ANOVA are reported in Table 3. There were significant pretest-to-posttest increases for parenting confidence,  $F(1, 218) = 73.70$   $p = .001$ . The parenting confidence scores

increased from  $M = 39.16$  ( $SD = 10.54$ ) at pretest to  $M = 45.36$  ( $SD = 7.76$ ) at posttest, a difference of 6.20 points. Cohen's  $d$ , a measure of effect size, was calculated using this formula:  $M_1 - M_2 / s_{pooled}$ , where  $s_{pooled} = \sqrt{[(s_1^2 + s_2^2) / 2]}$ . The Cohen's  $d$  was .67, a medium-to-large effect size. Based on the significant pretest-to-posttest increases in parenting confidence, the null hypothesis was rejected for the first research question.

Table 3. Repeated-measures ANOVA: PRQ Parenting Confidence Pretest to Posttest Mean Scores (N = 219)

	M	SD	F	df	p
PRQ Parenting Confidence			73.70	1, 218	.001
Pretest	39.16	10.54			
Posttest	45.36	7.76			

**Research question 2.** The second research question was, “Is there a statistically significant increase in parent use of appropriate verbal discipline, as measured by the PDS appropriate discipline subscale, upon completion of a 6-week NHA parenting intervention, among parents in the intervention condition?” There were significant pretest-posttest *decreases* in PDS scores, indicating *increased* use of appropriate verbal discipline,  $F(1, 218) = 100.35$ ,  $p = .001$ , as seen in Table 4. The use of appropriate discipline scores decreased from  $M = 4.84$  ( $SD = 1.70$ ) at pretest to  $M = 3.96$  ( $SD = 1.54$ ) at posttest, a difference of -0.88 points. The Cohen's  $d$  was .54, a medium effect size. Based on the significant increased use of appropriate verbal discipline among intervention parents from pretest to posttest, the null hypothesis was rejected for the second research question.

Table 4. Repeated-measures ANOVA: PDS Appropriate Discipline Pretest to Posttest Mean Scores (N = 219)

	M	SD	F	df	p
PDS Appropriate Verbal Discipline			100.35	1, 218	.001
Pretest	4.84	1.70			
Posttest	3.96	1.54			

**Research question 3.** The third research question was, “Is there a statistically significant increase in parent perception of child interpersonal strengths, as measured by the BERS-2 interpersonal strengths subscale, upon completion of a 6-week NHA parenting intervention, among parents in the intervention condition?” As seen in Table 5, there were significant pretest-posttest increases for parent perception of child interpersonal strengths,  $F(1, 218) = 202.91, p = .001$ . Parents’ perceived child interpersonal strengths increased from  $M = 6.79$  ( $SD = 2.18$ ) at pretest to  $M = 8.71$  ( $SD = 2.21$ ) at posttest, a difference of 1.92 points. The Cohen’s  $d$  was .87, a large effect size. Based on the significant increases in parents’ perception of child interpersonal strengths from pretest to posttest, the null hypothesis was rejected for the third research question.

Table 5. Repeated-measures ANOVA: BERS-2 Child Interpersonal Strengths Pretest to Posttest Mean Scores (N = 219)

	M	SD	F	df	p
BERS-2 Child Interpersonal Strengths			202.91	1, 218	.001
Pretest	6.79	2.18			
Posttest	8.71	2.22			

## **Study Goal 2: Differences between NHA Intervention and Control Group at Posttest**

This section of the chapter addresses the second research study, which examined if a matched group of 31 NHA intervention parents had a significantly higher PRQ parenting confidence posttest mean score, a significantly lower PDS appropriate verbal discipline posttest mean score – indicating higher use of appropriate verbal discipline practices – and a significantly higher BERS-2 child interpersonal strengths posttest mean score, in comparison to the posttest mean scores of the 31 control group of participants. Thirty-one intervention parents were matched to the 31 control parents on parenting confidence, use of appropriate discipline, and perceived child interpersonal strengths pretest scores as well as parent gender and child age (the intervention group was not large enough to also match on child gender). Hypothesis testing entailed conducting a series of between-within (mixed) ANOVAs.

This section of the chapter opens with a review of the participant demographic variables, with results reported for the NHA intervention and control groups of parents. Results and conclusions drawn from the testing of covariates and the testing of assumptions for between-within (mixed) ANOVAs are then reviewed. This section of the chapter ends with presentation and discussion of the between-within (mixed) ANOVA results.

### **Participant Demographic Descriptive Statistics**

The sample consisted of 31 parents in the intervention group, matched on parenting confidence, use of appropriate discipline, perceived child interpersonal strengths pretest scores and parent gender and child age with the 31 control group

parents. There were not enough intervention parents to also match on child gender. Frequencies and percentages of men and women parent and children were calculated for the two groups. Results are presented in Table 6. The NHA intervention and control groups had relatively equivalent frequencies/percentages of mothers and fathers (i.e., 28 [90.3%] mothers and 3 [9.7%] fathers in the NHA intervention group and 23 [74.2%] mothers and 8 [25.8%] fathers in the control group). The intervention group had more daughters ( $n=18$ , 58.1%) and fewer sons ( $n=13$ , 41.9%) than did the control group (daughter  $n=10$  [32.3%]; son  $n=21$  [67.7%]).

Table 6. Descriptive Statistics: Parent and Child Gender for Intervention and Control Parents (N = 62)

Variable	Intervention <i>n</i> (%)	Control <i>n</i> (%)
Parent Gender		
Women	28 (90.3)	23 (74.2)
Men	3 (9.7)	8 (25.8)
Child Gender		
Girl	18 (58.1)	10 (32.3)
Boy	13 (41.9)	21 (67.7)

The mean, standard deviation, and minimum and maximum scores were computed on the child age variable for the two study groups, with the statistics presented in Table 7. The mean age of the targeted children of the 31 NHA of intervention parents was  $M = 5.90$  ( $SD = 0.94$  years), while the mean age of children of control parents was  $M = 6.08$  years ( $SD = 1.10$  years). The median child age for both groups was of 6.00 years, and both groups had the same age range of children, from 5.00 to 8.00 years.

Table 7. Descriptive Statistics of Child Age Across Intervention and Control Study Groups (N=62)

	Intervention Group ( <i>n</i> = 31)					Control Group ( <i>n</i> = 31)				
	M	Md	SD	Min	Max	M	Md	SD	Min	Max
Age	5.90	6.00	0.94	5.00	8.00	6.08	6.00	1.10	5.00	8.00

**Descriptive Statistics: PRQ Parenting Confidence, PDS Appropriate Verbal Discipline, and BERS-2 Child Interpersonal Strengths Pretest scores**

Thirty-one NHA intervention parents were matched on PRQ parenting confidence, PDS appropriate verbal discipline, and BERS-2 child interpersonal strengths pretest scores with the 31 parents in the control group. To confirm that the 31 NHA intervention and the 31 control group parents did not significantly differ on PRQ parenting confidence, PDS appropriate verbal discipline, and BERS-2 child interpersonal strengths pretest scores, a series of independent samples *t*-tests were conducted. Results from the independent samples *t*-tests are presented in Table 8. The 31 parents in the NHA intervention group did not statistically significantly differ from the 31 control parents on PRQ parenting confidences pretest scores,  $t(60) = 0.07, p = .948$ , PDS appropriate verbal discipline pretest scores,  $t(60) = 0.75, p = .454$ , or BERS-2 child interpersonal strengths pretest scores,  $t(60) = 0.16, p = .873$ . The mean difference between the intervention and control group at pretest was just .16 points for the parenting confidence variable, .24 for the use of appropriate discipline variable, and .13 for the child interpersonal variable.

Table 8. Independent-samples T-tests: PRQ Parenting Confidence, PDS Appropriate Verbal Discipline, and BERS-2 Child Interpersonal Strengths Pretest Mean Scores-NHA Intervention versus Control (N=62)

	M	SD	t	df	p
PRQ Parenting Confidence Pretest			0.07	60	.948
NHA Intervention	53.44	9.43			
Control	53.28	9.39			
PDS Appropriate Verbal Discipline Pretest			0.75	60	.454
NHA Intervention	4.87	1.54			
Control	4.54	1.91			
BERS-2 Child Interpersonal Strengths Pretest			0.16	60	.873
NHA Intervention	10.16	3.16			
Control	10.03	3.19			

### Testing of Covariates

Three independent samples *t*-tests were conducted to determine whether parents of girls and parents of boys significantly differed with regard to posttest parenting confidence, use of appropriate verbal discipline, and perception of child interpersonal strengths. Results from the three independent samples *t*-tests showed that parents of girls and parents of boys did not significantly differ with regard to posttest parenting confidence mean scores,  $t(60) = 0.13$ ,  $p = .89$ . Parents of girls and parents of boys did not significantly differ on use of verbal discipline mean scores at posttest,  $t(60) = 0.08$ ,  $p = .939$ . Finally, parents of girls and parents of boys did not significantly differ on



posttest perception of child interpersonal strengths,  $t(60) = -0.72, p = .476$ . As there were no child gender differences with regard to posttest variables, child gender did not need to be included as a covariate.

### **Testing of Assumptions for a Between-Within (Mixed) ANOVA**

There are three key assumptions of the data for a between-within (mixed) ANOVA. The first assumption is adequate power (at .80) (Warner, 2014). A *post hoc* power analysis using G\*Power (Faul et al., 2007) was conducted to determine if the sample size was large enough to have adequate power. The significance value was set to  $p < .05$ , the sample size was set to 62, and the number of groups was set to 2 (i.e., intervention and control group). Based on findings from meta-analyses of parenting interventions (Chen & Chan, 2015; Knerr et al., 2013; Piquero et al., 2016), effect size was set to medium-to-large,  $f = .365$ . Results from the *post hoc* power analysis showed that the power was .90, a sound degree of power. The assumption of adequate power was met.

The second assumption for a between-within or mixed ANOVA is equality of variances, which means that the variances of the dependent variables are similar across the intervention and control groups (Erceg-Hurn & Mirosevich, 2008). Levene's *F* test of equality of variances is commonly utilized to test the equality of variances assumption. A significant (at  $p < .05$ ) Levene's *F* indicates that this assumption is violated (Erceg-Hurn & Mirosevich, 2008). Table 9 presents the results of the Levene's tests conducted for the three dependent variables. Results showed that the variances of the PRQ Parenting Confidence, PDS Appropriate Verbal Discipline, and the BERS-2

Child Interpersonal Strengths posttest scales were similarly distributed for the NHA intervention and control groups. The equality of variances assumption was met.

Table 9. Levene's F Test: PRQ Parenting Confidence, PDS Appropriate Verbal Discipline, and BERS-2 Child Interpersonal Strengths Pretest Mean Scores-NHA Intervention versus Control (N = 62)

Variable	Levene's F	df	p
PRQ Parenting Confidence Posttest	0.45	1,60	.506
PDS Appropriate Verbal Discipline Posttest	0.91	1,60	.345
BERS-2 Child Interpersonal Strengths Posttest	1.48	1,60	.229

#### Hypothesis Testing: Between-Within ANOVA

**Research question 4.** The fourth research question was “Is there a statistically significant difference in parenting confidence, as measured by the PRQ parenting confidence subscale, upon completion of the six-week NHA parenting intervention, between parents in the NHA intervention condition versus parents in the control condition?” Results from the between-within (mixed) ANOVA showed no significant main effects of time, the within-group (i.e., pretest to posttest) variable, on parenting confidence,  $F(1,60) = 0.70$ ,  $p = .408$ , Cohen's  $d = .21$ . There were no significant group (i.e., intervention or control) by time (i.e., pretest to posttest) interaction effects,  $F(1,60) = 1.74$ ,  $p = .192$ , Cohen's  $d = .34$ , for either the intervention parents ( $M_{pretest} = 53.36$ ,  $M_{posttest} = 54.04$ ) or control group parents ( $M_{pretest} = 53.28$ ,  $M_{posttest} = 50.59$ ). There were no significant between-group differences in parenting confidence posttest mean scores between the intervention ( $M_{posttest} = 54.04$ ) and control parents ( $M_{posttest} = 50.59$ ),  $F(1,60)$

$= 0.70$ ,  $p = .408$ , Cohen's  $d = .24$  (see Figure 6). While the NHA intervention parenting confidence posttest mean score was higher than the control group mean score, it was not significantly higher. Based on the lack of significant findings in use of parenting confidence posttest mean scores between the NHA intervention and control group parents, the null hypothesis failed to be rejected for the fourth research question.

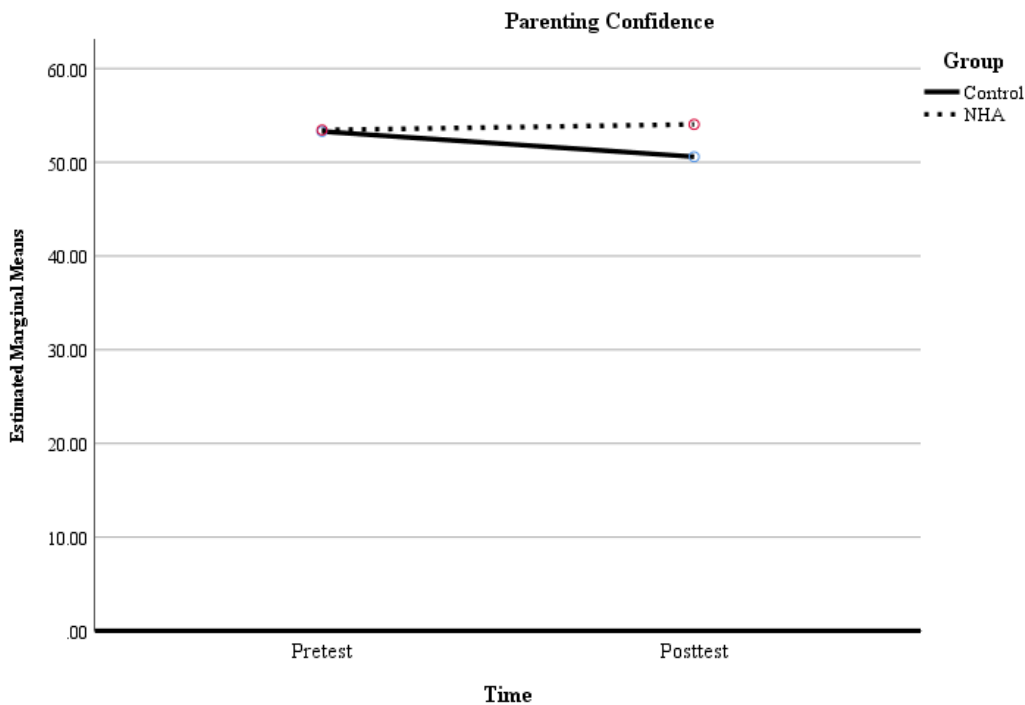


Figure 6. Intervention and control pretest and posttest parenting confidence mean scores

**Research question 5.** The fifth research question was, “Is there a statistically significant difference in parent use of appropriate discipline, as measured by the PDS appropriate verbal discipline subscale, upon completion of a 6-week NHA parenting intervention, between parents in the NHA intervention condition versus parents in the control condition?” The adjusted significance level for this set of analyses was  $p < .017$ , based on a Bonferroni correction. As such, results from the between-within (mixed)

ANOVA showed no significant main effects of time, the within-group (i.e., pretest to posttest) variable, on use of appropriate verbal discipline,  $F(1,60) = 5.22, p = .026$ , Cohen's  $d = .59$ . There were, however, significant group (i.e., intervention or control) by time (i.e., pretest to posttest) interaction effects,  $F(1,60) = 7.62, p = .008$ , Cohen's  $d = .71$ . As seen in Figure 7, NHA intervention parents' PDS appropriate verbal discipline subscale mean score decreased from pretest to posttest (i.e.,  $M_{pretest} = 4.87, M_{posttest} = 3.74$ ). In contrast, the PDS appropriate verbal discipline mean score did not significantly decrease – it, in fact, *increased* - from pretest to posttest for the control group parents ( $M_{pretest} = 4.53, M_{posttest} = 4.65$ ). While parents in the NHA intervention had a use of appropriate verbal discipline posttest mean score ( $M_{posttest} = 3.74$ ) that was lower than the subscale mean score for the parents in the control group ( $M_{posttest} = 4.65$ ), this was not significantly different,  $F(1,60) = 0.79, p = .379$ , Cohen's  $d = .23$ . Based on the significant time by group interaction effects in use of appropriate verbal discipline, the null hypothesis was rejected for the fifth research question.

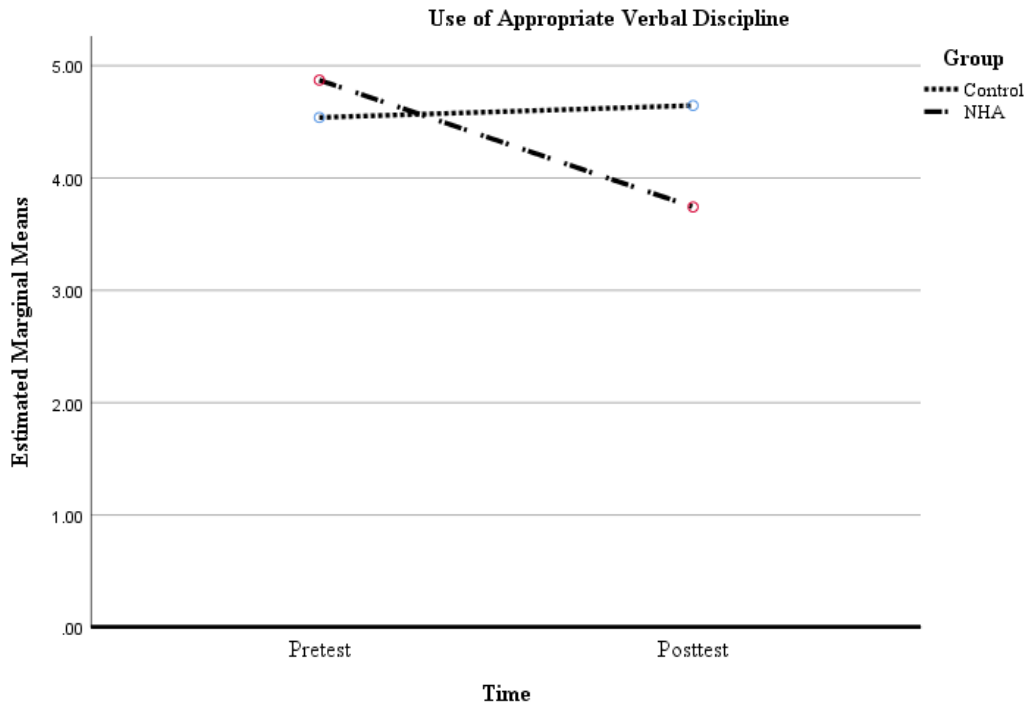


Figure 7. Intervention and control pretest and posttest use of appropriate verbal discipline mean scores

**Research question 6.** The sixth and last research question for this study was, “Is there a statistically significant difference in parent perception of child interpersonal strengths, as measured by the BERS-2 interpersonal strengths subscale, upon completion of a 6-week NHA parenting intervention, between parents in the NHA intervention condition versus parents in the control condition?” Results from the between-within (mixed) ANOVA showed no significant main effect of time, the within-group (i.e., pretest to posttest) variable, on parent perceptions of child interpersonal strengths,  $F(1,60) = 2.63, p = .110$ , Cohen’s  $d = .42$ . As this study used a Bonferroni-adjusted significance value of  $p < .017$ , there were no significant group (i.e., intervention or control) by time (i.e., pretest to posttest) interaction effects,  $F(1,60) = 4.15, p = .046$ ,

Cohen's  $d = .53$ , for either the intervention parents ( $M_{pretest} = 10.16$ ,  $M_{posttest} = 11.65$ ) or control group parents ( $M_{pretest} = 10.03$ ,  $M_{posttest} = 9.86$ ). There were also no significant between-group differences in parenting confidence posttest mean scores between the intervention ( $M_{posttest} = 11.65$ ) and control parents ( $M_{posttest} = 9.86$ ),  $F(1,60) = 2.53$ ,  $p = .117$ , Cohen's  $d = .41$  (see Figure 8). While the NHA intervention perception of child interpersonal strengths posttest mean score was higher than the control group posttest mean score, it was not significantly higher (at  $p < .017$ ). Based on the lack of significant findings in parents' perceptions of child interpersonal strengths between the NHA intervention and control group parents, the null hypothesis failed to be rejected for the sixth research question.

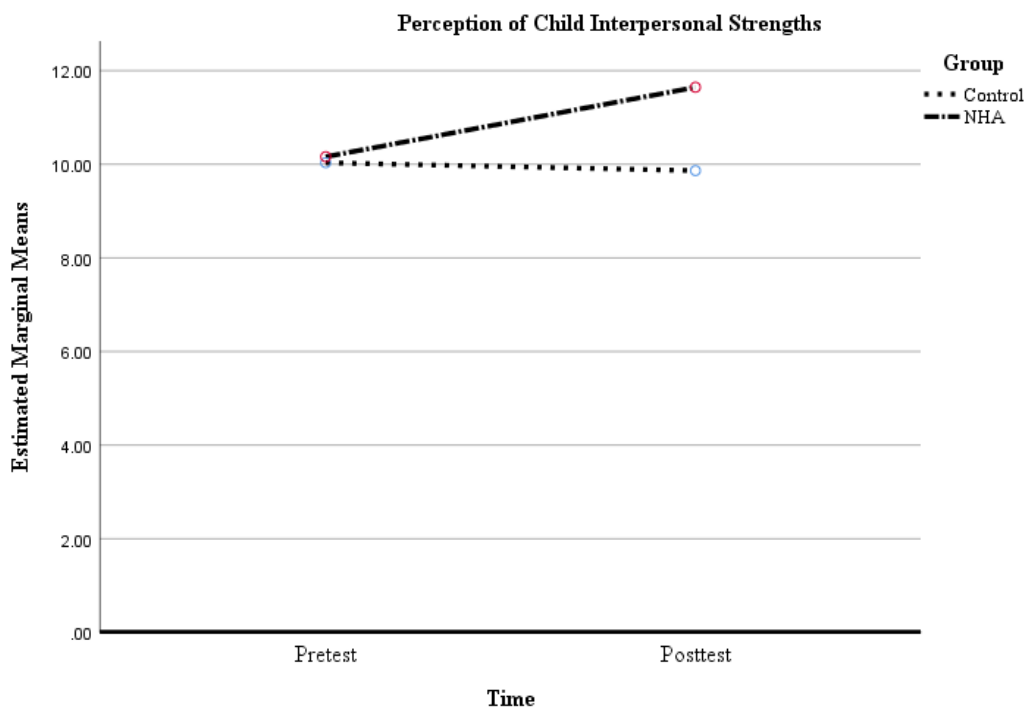


Figure 8. Intervention and control pretest and posttest parent perception of child interpersonal strengths mean scores

The lack of significant findings for the 31 intervention parents with regard to parenting confidence and use of verbal discipline may have resulted from the participant/sample factors of sample size, convenience sampling, and participant ethnic homogeneity and the measurement factors of the use of self-report data from one parent.

## CHAPTER V

### SUMMARY, CONCLUSIONS, AND IMPLICATIONS

The purpose of this quantitative study was to test the effectiveness of the Nurtured Heart Approach (NHA) parent education intervention, using 2015 NHA archival data from North Dakota State University Department of Psychology. This study had two goals. The first goal was to determine if the 219 intervention parents in the NHA intervention condition reported significant increases in perceived parenting confidence, increased use of appropriate discipline, and perceived improvement in the target's child interpersonal strengths from participating in the NHA program. The second study goal was to determine if a matched group of 31 NHA intervention parents had significantly higher parenting confidence, use of appropriate discipline, and parent perceptions of child interpersonal strengths posttest mean scores as compared to 31 control parents.

The purpose of this chapter is to review the key findings of this study as well as provide interpretations of these findings within the context of the guiding theories, and prior empirical literature. It will also include recommendations for practice and future research. Limitations of the study are denoted. The chapter ends with a final conclusion.



## Review of Findings

This dissertation proposed two studies, both of which utilized 2015 archival evaluation data on the NHA intervention. The goal of the first study was to determine if there were significant pre- to post-intervention increases in parenting confidence, use of appropriate verbal discipline, and parent perceptions of child interpersonal strengths among 219 parents who participated in the NHA intervention in 2015.

The first research question was, “Is there a statistically significant increase in parenting confidence, as measured by the PRQ parenting confidence subscale, upon completion of the 6-week NHA parenting intervention, among parents in the intervention condition?” There were significant pretest-to-posttest increases in parenting confidence among the 219 NHA intervention parents. For example, parents rated themselves higher on the qualities of being a good parent, making good parenting decisions, and having higher levels of parenting efficacy at posttest as compared to pretest.

The second research question was, “Is there a statistically significant increase in parent use of appropriate verbal discipline, as measured by the PDS appropriate discipline subscale, upon completion of a 6-week NHA parenting intervention, among parents in the intervention condition?” There were significant pretest-to-posttest *decreases* in PDS scores, indicating *increased* use of appropriate verbal discipline among the 219 NHA intervention parents. That is, parents reported less negativity/more positivity toward their child and reductions in yelling or scolding their child at posttest.

The third research question was, “Is there a statistically significant increase in parent perception of child interpersonal strengths, as measured by the BERS-2

interpersonal strengths subscale, upon completion of a 6-week NHA parenting intervention, among parents in the intervention condition?” There were significant pretest-posttest increases for parent perception of child interpersonal strengths following the NHA intervention. For example, parents reported higher agreement that, for example, their child was kind toward others, showed concern for the feelings of others, and could control his/her behavior, at posttest.

The second goal of the study was to determine if a matched sample of 31 NHA intervention parents had significantly higher parenting confidence, use of appropriate verbal discipline, and parent perceptions of child interpersonal strengths posttest mean scores as compared to 31 control parents. The 31 intervention parents were matched to the 31 control parents on parenting confidence, use of appropriate discipline, and perceived child interpersonal strengths pretest scores, and parent gender and child age (the intervention sample was too small to also match on child gender).

The fourth research question was “Is there a statistically significant difference in parenting confidence, as measured by the PRQ parenting confidence subscale, upon completion of the 6-week NHA parenting intervention, between parents in the NHA intervention condition versus parents in the control condition?” The results for parenting confidence were not significant. While the NHA intervention parenting confidence posttest mean score was higher than the control group mean score, it was not significantly higher.

The fifth research question was, “Is there a statistically significant difference in parent use of appropriate discipline, as measured by the PDS appropriate verbal discipline subscale, upon completion of a 6-week NHA parenting intervention, between

parents in the NHA intervention condition versus parents in the control condition?”

There were significant pretest-to-posttest increases in use of appropriate verbal discipline for the 31 NHA intervention parents; control parents did not show similarly significant increases.

The sixth and last research question for this study was, “Is there a statistically significant difference in parent perception of child interpersonal strengths, as measured by the BERS-2 child interpersonal strengths subscale, upon completion of a 6-week NHA parenting intervention, between parents in the NHA intervention condition versus parents in the control condition?” The results for perceived child interpersonal strengths were not significant (when  $p$  was set to .017, based on a Bonferroni correction). While NHA intervention parents had a higher perceived child interpersonal strengths posttest mean score than the control parents, it was not significantly higher (at  $p < .017$ ).

### **Interpretations of the Study**

The findings have relevance to Bandura’s (1977) social learning theory (SLT) and Mowder’s (2005) parent development theory (PDT), the two guiding theories of the study. The findings are also relevant to pertinent empirical research. In this section of the chapter, the findings are discussed in relation to the two guiding theories and the empirical literature.

#### **Interpretations of the Study: Bandura’s (1977) Social Learning Theory (SLT)**

A primary tenet of SLT is the concept of reciprocal determinism, that is, the person interacts with his/her environment to influence behavior (Bandura, 1977, 2011). SCT and reciprocal determinism often frame parenting interventions, including NHA, and these interventions frequently incorporate elements of SCT – such as modeling and

vicarious reinforcement (Dittman et al., 2016; Scott & Dadds, 2009; Taylor & Biglan, 1998). Evaluations of interventions support the assumption of parenting interventions that both child and parent behaviors can be changed by changing aspects of their environment and how they respond to their environment (Ponzetti, 2015; Sunderland, 2016). Results of this study for the most part confirmed that parents can change their behavior (at least for the short term) for the positive as a result of participating in the NHA. The NHA was especially effective in reducing parents' use of inappropriate verbal discipline and enhancing their perceptions of their child's strengths.

A foundational component of SCT is the concept of self-efficacy. Bandura (1977, 2008, 2011) argued that motivation to change a behavior is influenced by one's perceptions of their self-efficacy based on past success or failure in performing the behavior. Self-efficacy pertains to specific behaviors, and an individual can have high self-efficacy in one area (e.g., academics) and low self-efficacy in another (e.g., sports) (Bandura, 2011). Parenting confidence has been defined as a parents' perception of their parenting self-efficacy (Khajehei & Lee, 2017; Sevigny & Loutzenhiser, 2010; Vance & Brandon, 2017). In this study, findings indicated that intervention parents increased their sense of parenting confidence from baseline to completion of the program but a subset of intervention parents did not report significantly higher posttest parenting confidence levels when compared to a group of parents in the control condition. Based on study findings, there is less support for the argument that the NHA intervention can effectively influence and change parenting confidence (self-efficacy).

## **Interpretation of the Findings: Mowder's (2005) Parent Development Theory (PDT)**

Mowder (2005) in PDT, posited that parenting is shaped by the parents' perceived social role as it pertains to parenting: specifically, individuals who become parents have specific schemas and perceptions as they relate to the role of parent; in addition, a child develops a specific social role in relation to the parent, that of "being a child to a parent" (Mowder, 2005, p. 81). Mowder (2005) postulated that the parenting role is influenced by the developmental stage of the parent and the child and personal attributes of the parent. One of Mowder's (2005) central arguments was that parents change in response to their child's developmental stages. This study focused on parents of children between the ages of 5 and 8. The children would have been in the preoperational to concrete operational stages of cognitive development (Sunderland, 2016). Children between the ages of 5 and 8 should have sound basic language skills and may be able to think in a logical fashion (Brock & Kochanska, 2016; Sunderland, 2016). They should be able to grasp that others have different perspectives than their own. Children are in the early elementary years and should have enough socioemotional maturity to develop friendships, follow basic societal rules, and engage in prosocial behaviors (Brock & Kochanska, 2016; Sunderland, 2016).

It is proposed that the strengths of the study findings were in part due to the young age of the children. The median age of the children was 6 years and children's ages ranged from 5 to 8 years in this study. Findings may not have been as significant or significant at all had this study focused on parents of children age 9 or older. When child gender is defined as a social role, study findings did not support Mowder's (2005)

premise. The child's gender did not seem to influence intervention or control parents' perceptions of their specific behaviors directed at the child or their perceptions of their child's behavior.

Mowder (2005) further postulated that six key parenting factors influence the parent social role. The first characteristic is *bonding*, or the level of attachment between the parent and child (Mowder, 2005). The second characteristic is *discipline*, and is similar to Baumrind's (1966) concept of parental control (Mowder, 2005). The third characteristic is *education*, which Mowder (2005) defined as "the parental transmission of information in order to inform and guide the child" (p. 82). The fourth characteristic is *general welfare*, which is the means in which the parent protects and provides for the child (Mowder, 2005). The fifth characteristic is *responsiveness* of the parent to the child (Mowder, 2005). The sixth characteristic is *sensitivity*, defined by Mowder (2005) as "the sense of accuracy in determining and responding appropriately to children's needs" (p. 82).

Findings from this study have relevance to Mowder's (2005) concepts of attachment and bonding, discipline, and sensitivity. Parenting confidence has been strongly associated with attachment and bonding. The equivocal findings in this study suggest that the NHA intervention may be less effective in changing aspects of attachment and bonding. As attachment and bonding are crucial to the development of a strong infant-parent bond, interventions aimed at parents of infants and toddlers may be more successful in shaping parents' attachment and bonding. Results from this study do suggest however that the NHA intervention may be effective in reducing parents' use of inappropriate discipline techniques and enhancing their sensitivity toward their child.

### **Interpretation of Findings: Prior Evaluations of the NHA Intervention**

The majority of studies evaluating the NHA intervention have been conducted by Brennan, Hektner, and colleagues (Brennan et al., 2016; Brennan & Hektner, 2012; Brennan, Hektner, Brotherson, & Hansen, 2016; Hektner, 2012; Hektner et al., 2013). Hektner (2012), in a pilot study of the NHA intervention conducted with 190 intervention and 94 control parents found significant pretest to posttest increases in parenting confidence and perceptions of child's interpersonal strengths and significant pretest to posttest decreases in use of inappropriate verbal discipline. These changes were not found for the group of 94 control parents. Brennan and Hektner (2012) found that parents in the NHA program reported significantly higher levels of parent well-being, positive parenting practices, and enhanced perception of child interpersonal strengths. Parents in the NHA workshop reported increased levels of child interpersonal strength regardless of the birth order of the child (Brennan & Hektner, 2012b). Similar findings were found in this study.

Ahmann (2014) and Hektner et al. (2013) denoted that evaluation findings on the efficacy of the NHA intervention may be influenced by certain (a) program elements (e.g., the length of the NHA intervention, which is usually conducted in 5 or 6 weeks, session topics); (b) participant characteristics (e.g., ethnicity, age, income level); (c) aspects of the study sample (e.g., sample size, homogeneity, convenience as compared to random); and (d) measurement factors (e.g., use of self-reports). It is also certainly possible that the self-report is influenced by the simple factor such as the child's behavior that day, in both the pre and post test. Observational testing would certainly be useful, whenever possible. The lack of significant findings for the 31 intervention

parents with regard to parenting confidence and use of verbal discipline may have resulted from the participant/sample factors of sample size, convenience sampling, and participant ethnic homogeneity and the measurement factors of the use of self-report data from one parent. It is also possible that the reason why parenting confidence and perception of children's interpersonal strength did not have significant outcomes in the control group, because of the duration of the program being so short. It is understandable that there may be significant findings for a behavior change; factors such as confidence and interpersonal strength may likely take longer to see significant changes.

There were some differences between findings in this study and the study done by Brennan et al. (2016). The authors utilized the data set which is partially used in this study, although the authors used data from all parents, not just parents of children ages 5 to 8 (Brennan et al., 2016). Brennan et al. (2016), using paired-samples *t*-tests, found that the participants in the NHA intervention reported significant pretest to posttest increases in the use of appropriate verbal discipline (as measured by the PDS appropriate discipline). However, when examining posttest differences between intervention and control parents, Brennan et al. (2016) found that intervention parents did not significantly differ from control parents with regard to perceptions of child interpersonal strengths (as measured by the BERS-2). This study found that a subset of 219 NHA intervention parents of children, ages 5 to 8, also had significant pretest to posttest increases in the use of appropriate verbal discipline. Contrary to Brennan et al.'s (2016) finding, this study showed that parents of children, ages 5 to 8, who participated in the NHA intervention, had significant pretest to posttest increases in perceptions of child



interpersonal strengths. These differences suggest that, as stated previously, parents of children in their early elementary years may most benefit from participation in the NHA intervention.

### **Recommendations for Practice and Future Research**

This study has both applied and empirical recommendations. In this section of the chapter recommendations for practice are first discussed. Recommendations for future research are then presented.

#### **Recommendations for Practice**

Findings from this study suggest that, similar to education and special education, early intervention is key. Evidence from this study supports the benefits of parent participation in the NHA program. Parenting interventions such as NHA should continue to be offered to parents of all efficacy levels so that they can raise the next generation of children with more skill and competence, promote healthy interactions and relationships with their children, and engage in more positive rather than punitive parenting practices. This in turn can enhance children's self-esteem and wellbeing and ultimately affect the choices they make. The findings from this study suggest that the NHA intervention may be especially beneficial for parents of children in the preoperational and concrete operational stages of cognitive development. The NHA intervention should be considered for parents of infants and toddlers (which may require changing some aspects of the intervention). As the research has utilized Caucasian parents when examining the efficacy of the NHA, it is important to provide this intervention to parents of different ethnicities, cultures, socioeconomic status, and

education levels. Expectant parents often participate in programs that prepare them for their coming child; the NHA intervention may provide additional support and guidance.

Marriage and Family Therapists (MFTs) utilize various counseling and therapy methods with families. MFTs should consider discussing and/or using concepts from the NHA in their work with families, particularly parents of younger children. As an MFT, I often explain the basic concepts to parents and advise them to read up on it and then we discuss in sessions how to implement what they have read. Every parent thus far, has found it to be powerful and interesting, and I've received only positive feedback on it. As a parent myself, I find the concepts relevant and specifically regarding the impact on self-esteem to be so important. Considering what we know regarding the impact of low self-esteem and the struggle that the majority of individuals experience, how profound would it be to change a child's experience in this world. I believe the NHA to be useful and effective for MFTs to utilize in their practice with families. With further research as well, we may impact how all MFTs and families understand and view NHA as being effective and relevant for practice and treatment.

### **Recommendations for Research**

The NHA intervention has received some evaluation attention, especially from Brennan, Hektner, and colleagues (Brennan et al., 2016; Brennan & Hektner, 2012; Brennan et al., 2016; Hektner, 2012; Hektner et al., 2013). The participants in these studies were predominantly Caucasian and who had children without significant health/mental health concerns or developmental disabilities. There is a need for research evaluating the effectiveness of the NHA with more diverse parent and child samples, including (a) parents and children of color; (b) parents of differing income and education

levels; (c) parents of infants, toddlers, and adolescents; (d) parents of children with developmental disabilities; and (e) parents of children who have diverse mental health needs (Baumann et al., 2015; Brock & Kochanska, 2016). It is important to understand the effects of NHA with regard to diverse groups of child guardians (e.g., adoptive/foster parents, grandparents) and family types (e.g., gay/lesbian parents, step-families, families experiencing divorce or reunification, military families). It may also be important to understand if some of the tenets of NHA would be contrary to some cultures, for example, hierarchical cultures which may be more collectivistic rather than individualistic. If so, it may be interesting to hear if not all parenting programs are universal, how can certain specific important and universal concepts in NHA be adapted to be acceptable to all cultures, or if other cultures would be agreeable to learning about a program that doesn't fit their values in its entirety. For example, if I was recommending a parent to read up on the NHA and I knew that there are some concepts that may be more collaborative, I would discuss how to adapt or to choose to dismiss one or two items or concepts, rather than to dismiss the entire program as irrelevant to them. I would wonder how various cultures would respond to such an approach.

Studies are needed that examine the effects of the NHA intervention on fathers and/or if the intervention differentially affects mothers and fathers who attend the program together, as such a program may promote and encourage consistent parenting practices and enhance the relationship between parents (Panter-Brick, Burgess, Eggerman, McAllister, Pruett, & Leckman, 2014). ). It might be interesting to note if mother/father dyads taking the NHA course together, would improve outcome because they would be able to create a team approach and support each other in this endeavor.

In addition, we are seeing more variation in homes today, for example, single fathers, stay-at-home dads, as well as gay parents and, therefore, it is important to understand the clinical and empirical factors relevant with fathers specifically.

Most of the evaluation work conducted on the NHA intervention was conducted by Brennan, Hektner, and colleagues (Brennan & Hektner, 2012; Brennan et al., 2016; Hektner, 2012; Hektner et al., 2013). As a result, much is known about the effectiveness of the NHA intervention regarding to parenting confidence, use of appropriate verbal discipline, and perceptions of child interpersonal strengths. Additional studies that evaluate the effects of the NHA intervention on other parent outcomes, such as parenting stress, attachment and bonding, parenting styles, and parent use of discipline techniques are needed. Studies that focus on the child benefits and changes in child behavior are also needed.

In order to assess true transformational change long-term, it would be relevant and critical to also consider longitudinal research. Considering the lack of significant findings for the control group particularly in the areas of parenting confidence and perception of children's interpersonal strengths, it may be that change is a gradual process particularly when it comes to concepts such as confidence and interpersonal strength rather than for behavioral changes.

Studies are needed that improve upon the methodological limitations of existing NHA research. Studies that utilize experimental designs where parents are randomly selected and randomly assigned to intervention or control conditions are needed, as all NHA studies to date used convenience samples. Studies utilizing retrospective designs would also be beneficial as it is understood to be useful for improving the accuracy of

self-report. NHA intervention studies have utilized parent- or teacher self-report data. The use of multi-method (e.g., observational coupled with self-report) data and/or mother/father and parent/teacher dyad data would be of great benefit, as the use of such data would reduce the effects of the social desirability bias and enhance the psychometrics of study scales (Drost, 2011). Qualitative or mixed methods research may also be useful in understanding better the specific usefulness of the NHA program. Such research could provide evidence of the effectiveness of the NHA approach for parents, therapists and researchers, as well as to those in positions of power to impact social change opportunities and government-funded programs. My hope is that with further research, we might be able to advocate and influence policy in order to provide free parenting programs or possibly mandatory parenting programs. Subsequently, the ripple effect that results from parenting education, and parents feeling more competent, more engaged with their children as well as children's self-esteem improving can have drastic changes on society as a whole. Rather than spending billions of dollars on the penal system, we can possibly introduce policies to prevent all sorts of emotional and mental health issues by teaching parents and therefore, utilizing trickle-down theories to create positive change.

### **Strengths and Limitations of the Study**

There were strengths to this study. One strength of the study pertained to the sample sizes, which were large enough to have adequate power. Another strength was that the data set used for this study had complete data and thus did not require missing data to be imputed or cases with missing data removed. The use of instruments with a history of validity and reliability evidence was also a strength of the study, as was the

sound inter-item reliability of the PRQ parenting confidence subscale (with Cronbach's alphas of .85 at pretest and .84 at posttest).

There were limitations to the study. The data used in this study were derived from a sample of North Dakota parents of children ages 5 to 8 who volunteered to participate in Brennan et al.'s (2016) study. Individuals who volunteer are likely different in comparison to the general population, based on research that indicates that people who volunteer have specific characteristics (e.g., they are more likely to be female, have higher levels of education, and have few dysfunctional behaviors) (Drost, 2011). This study had more mothers than fathers, and in this study, mothers and fathers did not significantly differ with regard to their perceptions of their parenting confidence, use of appropriate verbal discipline, and their child's strengths. Nonetheless, results may have differed had a larger percentage of parents been fathers than mothers. However, the lack of father participation in parenting interventions is a consistent issue, to the point that interventions have been developed that focus specifically on fathers (Panter-Brick et al., 2014). We also don't know anything about the participants as related to whether or not their partners or spouses supported them in utilizing the NHA concepts. Perhaps some parents came home and shared with their partners who were unable to come, but were interested in joining the participating parent in utilizing the skills they learned. Others may have been uninterested or skeptical, etc.

It is possible that parents who willingly attended and completed the NHA workshop differed from parents who do not; for example, they may have more motivation, social support, and self-efficacy to change their parenting behaviors or may have a child who displayed relatively low or extremely high maladaptive behaviors. The

results also cannot generalize to parents who differ on socioeconomic status or who are of ethnic minority status or have children younger than 5 and older than 8.

An additional limitation is the use of archival data from a 2015 research study. While the intervention sample size of 219 was more than adequate, the smaller sample size of the 62 matched control and intervention groups was somewhat small (although the power analysis findings indicated it was adequate to achieve sufficient power). The use of the archival data set precluded the ability to utilize other instruments that measure the constructs of parenting confidence, use of appropriate verbal discipline, and perceptions of child strengths. While the instruments used in this study have been shown to be valid and reliable, the Cronbach's alphas were low for the PDS appropriate verbal discipline subscale (i.e., .67 at pretest and .65 at posttest) and the BERS-2 child interpersonal strengths scale (i.e., .68 at pretest and .65 at posttest).

### **Conclusion**

This study has indicated that NHA is a promising intervention for parents. Even though the study used an existing data set, and there are some limitations to the study as described above, the results are relevant for MFTs to promote NHA as being effective and relevant for their work with families. More research needs to be conducted on positive parenting programs, as this area is so critical for raising children with positive self-regard which is a result of positive parenting. Parenting programs such as the NHA are important, since prevention is key. It is imperative that there be more opportunities to provide parents with the positive parenting inherent in the NHA program that allows them to confidently and competently parent their children from a young age in a way that allows for the positivity in the parent-child relationship to be primary rather than

resorting to negativity. As we understand from the literature and from the tenets of the NHA, negativity produces negative behavior on the part of both parent and child which produces a pattern that becomes more ingrained and difficult to change. It is easier to build a child than to repair an adult. Providing tools to parents to improve their parenting social roles and subsequent interactions with their child is key to the health and well-being of the whole family. As recipients of positive parenting, children may be better equipped to handle what comes their way.



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## APPENDICES

## APPENDIX A

### CONSENT FOR USE OF DATASET

**Sara E. Roth**

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**To:** Hektner, Joel  
**Subject:** RE: update

**From:** Hektner, Joel [mailto:joel.hektner@ndsu.edu]  
**Sent:** Tuesday, September 12, 2017 10:21 AM  
**To:** 'Sara E. Roth' <ssroth@sbcglobal.net>  
**Subject:** RE: update

Sara,

I checked my previous email messages to you and realized that I never did put in writing my consent for your use of my data. We must have just discussed that over the phone. So, to confirm what we have previously discussed on the phone, I do consent to your use of my NHA dataset for your dissertation research. I would appreciate receiving an electronic copy (or link) of your dissertation when it is completed. If you plan to submit anything based on this dataset for publication in a peer-reviewed journal, I would also expect to be consulted first. Finally, you are asked not to share the dataset with anyone else.

Best regards,

Joel Hektner

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Joel Hektner  
Professor and Department Head / Human Development and Family Science  
**NORTH DAKOTA STATE UNIVERSITY**  
p: 701.231.8269 / f: 701.231.9645 / [www.ndsu.edu](http://www.ndsu.edu)



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**From:** Sara E. Roth [mailto:ssroth@sbcglobal.net]  
**Sent:** Monday, September 11, 2017 10:06 PM  
**To:** Hektner, Joel <joel.hektner@ndsu.edu>  
**Subject:** RE: update

Good evening,

Hope you are well.

I am wondering if you received my email below. I am hoping you might have a chance to send me an email with a brief statement of your consent for me to utilize your data for my research. I am so grateful for your time and graciousness.

All the best,

**Sara E. Roth, MS, IMFT**  
23360 Chagrin Boulevard  
Suite #102  
Beachwood, OH 44122



## APPENDIX B

### STUDY SURVEY

**Nurtured Heart Approach Parent Questionnaire** ID: \_\_\_\_\_ Date: \_\_\_\_\_

Age of child you are most concerned about: \_\_\_\_\_

Gender of this child: ☐ Male ☐ Female

Ages of other children living with this child: \_\_\_\_\_

Your gender: ☐ Male ☐ Female

Please read each statement and mark the number that corresponds to the rating that best describes your child's status over the past 3 months. Rate each statement to the best of your knowledge of your child. Rate all items by the following criteria:

3 = If the statement is very much like your child

2 = If the statement is like your child

1 = If the statement is not much like your child

1. Manages anger	3	2	1	0
2. Expresses anger	3	2	1	0
3. Resists anger	3	2	1	0
4. Controls anger	3	2	1	0
5. Accepts responsibility	3	2	1	0
6. Accepts consequences	3	2	1	0
7. Loses temper	3	2	1	0
8. Lists reasons	3	2	1	0
9. Admits mistakes	3	2	1	0
10. Accepts criticism	3	2	1	0
11. Resists criticism	3	2	1	0
12. Shows respect	3	2	1	0
13. Argues	3	2	1	0
14. Is obedient	3	2	1	0
15. Uses words	3	2	1	0

For the following questions, please circle a letter to indicate how frequently the event happens.

N – Never    S – Sometimes    O – Often    A – Almost Always

1. It is a problem	N	S	O	A
2. My child is angry	N	S	O	A
3. My child is sad	N	S	O	A
4. I feel angry	N	S	O	A
5. I feel sad	N	S	O	A
6. Due to my child's behavior	N	S	O	A
7. I have a headache	N	S	O	A

8. I let	Copyrighted material from PRQ.	N	S	O	A
9. It is		N	S	O	A
10. M		N	S	O	A
11. I s		N	S	O	A
12. M		N	S	O	A
13. M		N	S	O	A
14. I r		N	S	O	A
15. I c		N	S	O	A
16. M		N	S	O	A
17. M		N	S	O	A
18. M		N	S	O	A
19. I s		N	S	O	A
20. I l		N	S	O	A

For the following questions, use this Key for your responses:

Key:

1 = Almost Never    2 = Once in a While    3 = Sometimes    4 = Often    5 = Almost Always

When your child does something that he or she is not allowed to do or that you don't like, how often do you...

1. Take away a privilege or money or a toy?	1	2	3	4	5
2. Send your child out of the room or to time out?	1	2	3	4	5
3. Yell or scold?	1	2	3	4	5
4. Have your child take a break in the room with you?	1	2	3	4	5
5. Calmly discuss what happened?	1	2	3	4	5
6. Spank your child?	1	2	3	4	5
7. Make your child stay in his/her room or ground your child for more than one hour?	1	2	3	4	5
8. Respond to your child with the same level of negativity	1	2	3	4	5

When your child has done something that you like or approve of, how often do you...

9. Give your child a wink or a smile?	1	2	3	4	5
10. Say something nice about it; praise or approval?	1	2	3	4	5
11. Give your child a hug, pat on the back, or a kiss for it?	1	2	3	4	5
12. Give your child some reward for it, like a present, extra allowance or something special to eat?	1	2	3	4	5
13. Give your child some special privilege such as staying up late, watching TV, computer time, or electronic game time?	1	2	3	4	5
14. Do something special together with your child, such as going to the movies, or playing a game or going somewhere special?	1	2	3	4	5
15. Mention it to someone else, letting your child overhear?	1	2	3	4	5
16. Give your child grown-up tasks to do?	1	2	3	4	5