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ADULTS' KNOWLEDGE OF CHILD DEVELOPMENT AND CHILD GUIDANCE

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ADULTS' KNOWLEDGE OF CHILD DEVELOPMENT

AND CHILD GUIDANCE

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A Thesis

Presented to the

Faculty of

California State University,

San Bernardino

_____

In Partial Fulfillment

of the Requirements for the Degree

Master of Arts

in

Child Development

_____

by

Daniela Perez

March 2017

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March 2017

Approved by:

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ABSTRACT

Decades of research studies suggest that the quality of parenting skills and parenting knowledge about children's development have profound effects on children's development. Studies to date show that most adults lack knowledge of child development and developmentally-appropriate child guidance. These studies, however have focused on white, middle-class, well-educated women and are limited in the range of issues addressed. The purpose of this study was to gain a more accurate understanding about adults' knowledge of child development and child guidance by assessing female and male adults using an ethnically diverse population. Data from 705 adult participants showed that adults knew more than expected about child development, but lacked knowledge about developmentally-appropriate child guidance. Knowledge also varied by the amount of child development coursework taken. Results also showed that females were more knowledgeable than males, and knowledge varied somewhat by ethnicity with European-Americans being more knowledgeable in both child development and child guidance than other ethnic groups. These findings suggest that more work needs to be done to disseminate research- and evidence-based findings about child development and child guidance as the implications of this knowledge for child well-being are profound. The results of this study help to inform the design and content of parent education classes and related interventions to address gaps in knowledge and skills.

ACKNOWLEDGEMENTS

DEDICATION

This thesis is dedicated to all Latinas who strive everyday to make their voices heard and to all the parents and families I work with.

TABLE OF CONTENTS

CHAPTER FOUR: DISCUSSION

LIST OF TABLES

CHAPTER ONE

INTRODUCTION

The quality of parenting provided to children has a significant impact on their development. While research studies generally suggest that most parents lack knowledge about child development and child guidance, to date there have been few studies that have comprehensively assessed how much parents actually know about raising children. The purpose of this study is to investigate how much knowledge the average adult has about child development and child guidance.

The Importance of Parenting

Over the last 80 years, research studies have outlined the profound impact of parenting on child outcomes. Findings from these studies demonstrate that the quality of early caregiving is arguably the most influential factor on early as well as life-long development and behavior (Mullin, 2012). Parenting quality has a major impact on all domains of development including cognitive, brain, social, emotional, physical, and language development, and it establishes the basis for all future relationships (Landry, Smith & Swank, 2003; Mullin, 2012; Perry, 2002; Sroufe, 2005). The parent-child relationship is especially crucial during the early years of life because children are fully dependent on parents to meet their overall needs (Bowlby, 1951). Key findings of the effects that

parenting has on children's development come from three main sources of literature: attachment research, Baumrind's parenting styles research, and brain research.

Attachment Research

Attachment is defined as a genetically-based behavior which drives humans to stay connected and form deep relationships with others; in early life, the attachment system develops within the context of the primary caregiver-infant relationship (Ainsworth & Bowlby, 1991). Attachment involves proximity-promoting, affectionate interchanges, and behaviors that are appraised and pleasurable to both the child and caregiver (Bowlby, 1969). Key parental caregiving behaviors which facilitate the development of a "secure" attachment are expressions of warmth, responsiveness, consistency of presence, and sensitive attunement of the parent towards the child (Bowlby, 1951, 1969). These behaviors must be present during infancy and toddlerhood (0-3 years) which is the critical period to form a secure attachment bond (Bowlby, 1951). Children develop different forms of attachment depending on varying levels of affectionate interchanges and behaviors with their primary caregivers (Bolwby, 1969). The four different forms of attachment include secure, insecure-ambivalent, insecure-avoidant, and insecure-disorganized.

Parents who develop a secure attachment with their child are emotionally available to them, and they frequently express warmth, love, and responsiveness, and are consistently present (Davies, 2011). They also display

sensitive attunement, which involves the attunement by the parent to the emotional states of the child. These parents respond to their child's overall needs by being able to understand their child's unique cry and other nonverbal cues (Bretherton, 1992).

There are a multitude of developmental benefits for children when they build a strong, secure attachment with their parents. At young ages, children feel safe exploring their environment because they learn that their needs and interests will be responded to in a sensitive way (Ainsworth, Blehar, Waters, & Wall, 1978; Carr, Dabbs & Carr, 1975; Davies, 2011; Sorce & Emde, 1981). Securely attached children feel comfortable expressing their feelings openly, which in turn helps them in other aspects of development (Davies, 2011). They also tend to demonstrate superior social skills, less conflictual peer play, and are able to maintain intimate close relationships. They are also self-regulated, more advanced when it comes to cognitive and language development, and they have overall better mental and psychological functioning (Landry, Smith & Swank, 2003; Sroufe, 2005; Weinfield, Sroufe, & Egeland, 2000). Children who experience early sensitive caregiving during the first three years of life perform better academically--not only during childhood and adolescence, but also in adulthood (Raby, Roisman, Fraley, & Simpson, 2014). Overall, having a secure attachment with parents places children on a positive developmental trajectory during and beyond childhood including fostering a lifelong motivation to create strong affectional bonds with others.

Parents who form an "insecure-avoidant" attachment with their children are those who frequently ignore and actively reject their children, especially in terms of bodily contact (Bretherton, 2003). They speak negatively about their children and their children's behavior; they are not sensitively attuned to the child's needs, are often intolerant, and typically punish their child when the child expresses distress (Davies, 2011). These children grow up deprived of loving care as they are raised in a negative emotional environment.

Children with an insecure-avoidant attachment develop poor social and emotional skills, as well as poor cognitive functioning (Borhani, 2013; Rosenstein & Horowitz, 1996; Sroufe, Egeland, Carlson, & Collins, 2005). They tend to not show their emotions (i.e., they are "self-contained") and so become self-reliant as they do not look to adults for help in meeting their needs (Sroufe, Egeland, Carlson & Collins, 2005). These children grow up expecting rejection by adults, and they tend to have lower self-esteem, problems with peer relationships, and difficulties later on in marriage and when they become parents themselves (Hoghughi & Speight, 1998; Sroufe, Egeland, Carlson & Collins, 2005). These children are also at risk for engaging in risky sexual behavior, substance abuse, and associating with deviant youth (Sroufe, Egeland, Carlson & Collins, 2005). Having an avoidant attachment early on in life is also related to being diagnosed with oppositional defiant disorder, ADHD, and conduct disorder (Sroufe, Egeland, Carlson & Collins, 2005).

Parents who develop an "insecure-ambivalent" attachment with their children are unpredictable and inconsistent in responding, and are insensitive to the needs of their children (Davies, 2011). These parents do not provide consistent environments or responsive caregiving for their children. They often have unresolved issues from their own childhood and tend to place their own needs before their children's needs (Cassidy & Berlin, 1994).

Children with an insecure-ambivalent attachment tend to be anxious and lack confidence in interacting with others (Davies, 2011). They are less autonomous and demonstrate separation anxiety in preschool as well as in the school age years (which is far beyond what children with secure attachments exhibit). They are also likely to be victims of bullies due to their poor social and emotional development (Irons & Gilbert, 2005), and are vulnerable to conduct and attentional disorders, anxiety, depression, and substance abuse (Crittenden, 2006; Mikulincer & Shaver, 2007). These children have to demonstrate "extreme" behaviors in order to get their parents' attention (e.g., being loud and disruptive), and they are at risk for getting frequent physical illnesses (Crittenden, 2006).

Parents who form insecure-disorganized attachments show contradictory behaviors towards their children, e.g., displaying feelings of warmth to angrily rejecting their child (vanIjzendoorn, Schuengel, & Bakermans–Kranenburg, 1999). They often cause fear in their child, may be severely abusive and violent, and are usually anxious and fearful throughout most of the day (Davies, 2011). Many of these behaviors arise from unresolved traumas in the parents' own

childhoods (vanIjzendoorn, Schuengel, & Bakermans–Kranenburg, 1999), and they often suffer from bipolar disorder and substance abuse (DeMulder & Radke-Yarrow, 1991). Families living in poverty and parents who have a history of psychological disorders are more at risk of developing this type of attachment style with their children (Green & Goldwyn, 2002).

The effects of insecure-disorganized attachment on children are profound. These children develop poorly across all domains and exhibit significant amounts of externalizing behaviors (DeMulder & Radke-Yarrow, 1991). They grow up in a state of constant worry, causing high levels of cortisol in the brain (Davies, 2011). Due to their parent's inconsistent behavior, they grow up fearful of their parent and remain incapable of finding reliable ways to get their needs met (Davies, 2011). Insecure-disorganized attachments also predict high rates of role reversal (where the child takes on an adult-like role and begins to care for the parent) which end up causing even more stress for the child. This attachment style is also associated with high rates of psychopathy (Crittenden, 2006; Mikulincer & Shaver, 2007) as these detrimental effects extend far beyond childhood.

One of the primary reasons why the effects of attachment are so profound is because it is through this connection that children build an "internal working model" (Ainsworth, Blehar, Waters, & Wall, 1978; Bowlby, 1969). This early relationship establishes the foundation for all other relationships the child will have later on in life. It becomes the biological and emotional template for all

future relationships including peer relationships, marital relationships, and the relationships they will later have with their own children (Cozolino, 2006).

<u>Baumrind's Parenting Styles</u>

Baumrind's research (1967, 1991) also contributes to the understanding of the effects of parenting on child outcome as she (and other researchers) have outlined how specific parenting styles uniquely affect the development and behaviors of children and adolescents. She identified four "themes" of parenting behaviors including disciplinary strategies, warmth and nurturance, communication styles, and expectations of maturity and control (Baumrind, 1967) from which three parenting "styles" were created (i.e., authoritative, authoritarian, and permissive). Maccoby and Martin (1983) later suggested that permissive parenting be separated into two distinct styles: permissive-indulgent and permissive-neglectful. The parent behaviors and child outcomes associated with these four styles are discussed below.

Parents with an "authoritative" parenting style are assertive in establishing and monitoring clear limits while simultaneously showing affection and responsiveness towards their children, and having positive engagements with them (Baumrind, 1967). These parents empower their children by appropriately negotiating decisions so that both the child's and parent's needs are met (Baumrind, 1991). The disciplinary method these parents use is "inductive" (i.e., the use of reasoning and explanations without using punishment strategies) (Baumrind, 1991).

Children with authoritative parents enjoy many positive developmental outcomes. They grow up feeling capable, successful, and happy (Maccoby, 1992). They tend to have good social skills because they are competent at negotiating and understanding social functioning (Baumrind & Black, 1967). They are good at solving problems and making decisions, and they tend to be self-motivated and excel at school. As adolescents, they are less likely to engage in risky behaviors (e.g., alcohol and drug use, risky sexual behavior) (Baumrind, 1991; Steinberg, Lamborn, Darling, Mounts, & Dornbusch, 1994). In college, they are well adjusted and attain good grades (Strage & Brandt, 1999). Growing up with authoritative parents provides children with a lifetime of developmental benefits.

Parents who use an authoritarian parenting style display low warmth and responsiveness, and high levels of control (Baumrind & Black, 1967). They are "cold" towards their children, and they frequently yell, command, and criticize them. Authoritarian parents do not respect their children's thoughts, and they make up all of the rules, leaving very little room for negotiation (Baumrind, 1991).

Being raised by authoritarian parents puts children at risk for internalizing behaviors. They tend to have poor self-control, are anxious and insecure around their peers, and they tend to react in a hostile manner when frustrated (Baumrind, 1967). They also show high rates of dependency and passive behaviors, and display little exploratory behavior (Baumrind & Black, 1967). They are more likely to look for peer acceptance since they do not feel accepted at

home. In addition, they tend to have poor critical thinking and problem-solving skills (Kamins & Dweck, 1999). Authoritarian parenting is also linked to poor school performance in both children and adolescents (Dornbusch, Ritter, Leiderman, Roberts, & Fraleigh, 1987; Steinberg, Elmen, & Mounts, 1989; Steinberg, Lamborn, Dornbusch, & Darling 1992).

Permissive-indulgent parents are high in warmth and responsiveness, but low in demandingness (Maccoby & Martin, 1983). They excessively praise their children and rarely guide or set limits for them (Henschel, 2014), and are easily manipulated by them as their primary concern is to be liked by their child. These parents often take on the role of a friend and not of a parent (Baumrind, 1991).

Permissive-indulgent parenting sets children on a poor developmental trajectory. While they tend to experience high self-confidence, they also exhibit more behavior problems (Milevsky, Schlechter, Netter & Keehn, 2007). For example, these children show more impulsive and rebellious behaviors, are overly demanding of adults, and are disobedient (Maccoby, 1992, Milevsky, Schlechter, Netter & Keehn, 2007). They tend to lack empathy, dismiss any responsibility for their misbehaviors, and often display narcissistic behaviors (Henschel, 2014; Otway & Vignoles, 2006). Indulgent parenting has also been linked to children's underachievement in school settings (Onatsu-Arvilommi & Nurmi, 1997).

Finally, permissive-neglectful parents show low levels of both warmth and control (Maccoby & Martin, 1983). They are uninvolved in the lives of their

9

children, have little commitment to being a parent, and see their caregiving duties as an inconvenience (Baumrind, 1991). Furthermore, they do not support or encourage their child's self-regulation, nor do they supervise their child (Barber, 1996; Maccoby & Martin, 1983).

The negative effects of growing up with uninvolved and neglectful parents are profound. These children develop poorly across all domains (Maccoby, 1992) and have the poorest psychological adjustment, often developing delinquent tendencies (Aunola, Stattin, & Nurmi, 2000; Hoeve et al., 2009). Additionally, these children are more likely to engage in heavy alcohol and drug use (Steinberg, Lamborn, Darling, Mounts, & Dornbusch, 1994) and have poor academic performance (Aunola, Stattin, & Nurmi, 2000; Maccoby & Martin, 1983). Their academic disengagement and problem behaviors place them on a downward trajectory (Steinberg et al., 1994). As a result of poor-quality parenting, these children also tend to lack the social and emotional skills needed to be able to function in society (Hoghughi & Speight, 1998; Sroufe, Egeland, Carlson & Collins, 2005).

Parenting Quality and Brain Development

Research studies also demonstrate that parenting quality impacts early brain development. Studies show that during the first three years of life, the brain develops up to 90 percent of adult size, and that the most important environmental influence on the developing structures and functioning of the brain is the quality of caregiving environment (Balbernie, 2001; Perry, 2001, 2002).

The brain undergoes tremendous changes during this time, and puts into place most of the systems responsible for emotional, behavioral, and physiological functioning (Perry, 2001). Warm, sensitively attuned, and responsive caregiving shapes the emerging neural circuitry in children's brains, which promotes the development of emotion regulation, the stress response system, autobiographical memory, and theory of mind (Cozolino, 2006; Siegel, 2004). Positive early experiences help young brains strengthen synapses, prune away unused synapses, and allow the structure and functioning of the brain to develop normally (Perry, 2002).

Poor-quality parenting (i.e., the lack of nurturing and caring behaviors) has a multitude of negative effects on brain structure and brain chemistry (Balbernie, 2001; Perry, 2001; Sunderland, 2006). Children growing up in disorganized and dysfunctional environments tend to experience delayed brain development and underdeveloped brain regions, the suppression of neuron production after birth, and increased irritability and stress (Ahnert, Gunnar, Lamb & Barthel, 2004; Perry, 2002). Children who suffer from severe neglect as infants grow up to have smaller brain sizes and lack well-functioning communication pathways between the two brain hemispheres (Nelson, Fox, & Zeanah, 2013) which negatively impact all developmental domains (Ahnert, Gunnar, Lamb, & Barthel, 2004; Perry, 2002).

Summary

       In sum, attachment research, Baumrind's parenting style research, and brain research all demonstrate that the way parents care for their children has a profound influence on their subsequent development, and the effects tend to last a lifetime. Secure attachments and the authoritative parenting style provide the best developmental outcomes for children, while the permissive neglectful, and avoidant/disorganized parenting styles provide the worst developmental outcomes. When parents are responsive, sensitive, and set developmentally appropriate limits, children have better developmental outcomes, such as higher self-control, better social skills, and perform better academically compared to children being raised with different parenting styles. Children who are raised in neglectful environments or with parents who are extremely strict and are not willing to compromise, tend to have lower levels of self-control, have a hard time interacting with others, and perform poorly academically compared to children being raised with a different parenting style. Additionally, findings from neuroscience research show that the brain develops differently depending on early life experiences. Positive early life experiences help the brain develop optimally, and negative early life experiences delay and may even alter optimal brain development.

Influences on Parenting Behavior

What influences the type of parenting that adults (especially mothers) ultimately employ in parenting their own children? Research studies have identified a number of influences including maternal mental health, the quality of the mother's own early parenting, the parents' educational (SES) level, parent gender, parent ethnicity, and parents' knowledge of child development and parenting skills.

First, poor maternal mental health is associated with overall poor developmental outcomes in children (Fonagy, Target, Gergely, Allen, & Bateman, 2003; Gurian, 2003; Moore, Whaley, & Sigman, 2004). Depression in mothers has been associated with poor physical, mental, and emotional development in children (Gurian, 2003). Children of anxious mothers tend to be more fearful, aggressive, and endorse less control (Whaley, Pinto, & Sigman, 1999).

Second, the quality of the mother's own early parenting history is also related to how parents raise their own children: most adults (75%) parent the way they were parented (Sroufe et al., 2005). For example, parents who grew up with a secure attachment tend to show more warmth and positive affect towards their children (Adam, Gunnar, & Tanaka, 2004). Conversely, parents who grew up with an insecure attachment tend to show more negative behaviors towards their children and tend to be insensitive and rejecting (Blizard, 2003; Cassidy & Shaver, 1999).

Third, parents' educational level is positively correlated with parenting behaviors: mothers with higher levels of education are more likely to be knowledgeable about children's developmental needs and are more likely to support children's overall development (Adam, Gunnar, & Tanaka, 2004; Benasich & Brooks-Gunn, 1996; Serbin & Karp, 2003). Mothers with lower educational levels, by contrast, tend to be less responsive and less likely to provide an enriching home environment for their children (e.g., they tend to show inappropriate, intrusive, and inconsistent styles of interaction and discipline) (Serbin, Peters, McAffer, & Schwartzman, 1991).

Fourth, current research has demonstrated that parent gender has an effect on what parenting style they use with their children. Mothers may adopt a warmer style of parenting, while fathers may adopt a more goal-oriented style of parenting (Russell et al., 1998). Mothers are more likely to use an authoritative parenting style, whereas fathers are more likely to use an authoritarian parenting style (Conrade & Ho, 2001; Holmbeck, Paikoff, & Brooks-Gunn, 1995; Russell et al., 1998; Smetana, 1995). In general, studies have found that mothers, compared to fathers, provide more warmth and support and have closer relationships with their children (Holmbeck et al., 1995; Phares, 1999; Tein, Roosa, & Michaels, 1994). The amount of time parents spend with their children may also vary by gender. Mothers tend to spend more time taking care and interacting with their children and adolescents than fathers do (Fagot, 1995; Holmbeck et al., 1995; Hosley & Montemayor, 1997; Lewis & Lamb, 2003;

14

Phares, 1999; Renk et al., 2003). Incorporating father's/male's perspective in research about parental involvement is important because fathers contribute different information compared to mothers.

It is also important to consider the influence that ethnicity has on parenting style and practice. Current research has found that Hispanic mothers living in the U.S. report higher usage of discipline and lower levels of nurturing behaviors compared to Anglo-American mothers (Cardona, Nicholson, & Fox, 2000). African American parents report higher levels of harsh discipline (Kessler & Neighbors, 1986; Pinderhughes, Dodge, Bates, Pettit, & Zelli, 2000). Authoritative parenting seems to be more prevalent in European American families while authoritarian parenting seems to be widely used by African American, Asian American, and Hispanic American parents (Escovar, & Lazarus,1982; Steinberg, 2001; Varela et al., 2004).

Parents' knowledge of child development and effective parenting skills is another important factor influencing parenting quality. Studies show that child development knowledge is positively correlated with supportive and more developmentally-appropriate parenting behaviors, and has a positive influence on many aspects of childrearing and child outcome.

First, studies have shown that mothers' overall knowledge of child development is positively correlated with *interacting more appropriately with their children* (Chamberlin, Szumowski, & Zastowny, 1979; Chang, Park, & Kim, 2009; Fry, 1985; Grusec & Goodnow, 1994) including being more likely to implement

15

developmentally-appropriate practices (e.g., having developmentally-appropriate toys, using developmentally-appropriate language when speaking to the children, and interacting more with their children during play) (Stevens, 1984). Mothers with more child development knowledge are also more likely to use inductive guidance (Smith, 2002). More knowledge about development diminishes the potential for physical abuse and the use of corporal punishment (Thomas et al., 2003).

Second, child development knowledge helps parents be more likely to *appropriately meet the developmental needs of their children* (Smith, 2002). Mothers with adequate child development knowledge tend to adopt parenting behaviors that help regulate children's behaviors and that also help children's social-emotional development (Benasich & Brooks-Gunn, 1996; Miller, 1988; Sigel, 1992; Smith, 2002). Knowledgeable mothers use more inductive reasoning as opposed to assertive disciplinary techniques because they understand the developmental level of their child (Smith, 2002).

Third, parents with more knowledge are more likely *to provide more enriching experiences.* For example, greater maternal knowledge of child development is associated with increased cognitive and language stimulation (e.g., parents read to children daily) as well as increased engagement with the child during parent-child activities (Chang, Park, & Kim, 2009). Greater child development knowledge provides parents with the skills to create a supportive and higher-quality learning environment (Dichtelmiller et al., 1992; MacPhee,

1983; Miller, 1988; Morawska, Winters, & Sanders, 2009; Parks & Smeriglio, 1986; Stevens, 1984).

Child development knowledge has also been found to help parents *understand their child's development* including the motives behind children's behaviors which help parents understand that such challenges as toddler meltdowns and difficulties with teens are normal (Reich, 2005).

Studies also show that when parents are more knowledgeable about child development, infants perform better on the Bayley Scales of Infant Development (Dichtelmiller et al., 1992), and children display higher levels of intelligence, language, social, and emotional development (Assel et al., 2002; Ateach, 2003; Bronfenbenner, 1974; Chang, Park, & Kim, 2009; Johnson, Cohen, Chen, Kasen, & Brook, 2006; Pfannenstiel & Seltzer, 1985; Riesch, Anderson, & Krueser, 2006; Smith, 2002). Parental knowledge of child development is also related to children being more prepared for school and performing better academically (Zigler, Pfannenstiel, & Seitz, 2008). Mothers who have greater knowledge of child development also have children who display fewer behavior problems (Benasich & Brooks-Gunn, 1996; Huang, Caughy, Genevro, & Miller, 2005; McGillicuddy-DeLisi, 1985; Stevens, 1984). Greater child development knowledge has even been shown to have the capacity to shift their children's biology: parent's attendance at parenting education workshops, for example, has been found to be related to children having a lessened likelihood of being obese,

and with lower cortisol levels which lead to less aggressive behaviors (Brotman et al., 2007).

Research-based knowledge about parenting and child development has also been found to enable parents to more critically evaluate their own experiences growing up and the effects of those experiences on their own development (Center for the Study of Social Policy, 2014). This in turn has been found to allow parents to reflect on and evaluate their current practices and to consider other, more effective ways to guide and respond to children.

Conversely, the lack of child development knowledge increases the likelihood that parents will believe in and follow the many cultural myths about child development and child guidance, e.g., "Don't pick up a crying baby; they need to learn to quiet themselves"; "If you give too much love to a child, it will spoil them"; "Toddlers have tantrums because they just want attention and are trying to manipulate the parent"; "All that child needs is a good spanking" (Kamptner, personal communication, 2015). For example, parents often do not realize that harsh childrearing methods have negative consequences for children including diminishing children's curiosity and readiness to learn, increasing anger and misconduct, and even increasing the risk of developing brain abnormalities (Gardner, Burton, & Klines, 2006; Perry, 2001; Straus, 2001; Straus & Paschall, 2009; Tomoda et al., 2009). Also, a lack of developmental knowledge has been found to result in parents being more likely to be unaware of the timing of certain developmental milestones, and to have unrealistic and inappropriate

expectations for their children (Reich, 2005; Roggman, Benson, & Boyce, 1999). For example, parents have been found to underestimate how early children can experience feelings of sadness and fear and to overestimate how early children can control their emotions (Yankelovich & DYG Inc., 2000). Having unrealistic expectations of children may cause parents to be impatient and even to maltreat their children (Azar & Rohrbeck, 1986; Bavolek, 1989; Cowen, 2001; Peterson, Gable, Doyle, & Ewigman, 1997; Twentyman & Plotkin, 1982). Mothers who have unrealistic expectations typically fail to provide experiences that foster and support development (MacPhee, 1983), and they are less able to adequately meet the needs of their children (Reich, 2005).

In sum, there is a strong link between parents' child development knowledge and children's developmental outcomes (Benasich & Brooks-Gunn, 1996; Culp, Culp, Blankemeyer, & Passmark, 1998; Dichtelmiller et al., 1992; Goodnow, 1988; Honig & Wittmer, 1991; Huang, O'Brien Caughy, Genevro, & Miller, 2005; Hunt & Paraskevopoulos, 1980; MacPhee, 1983; Miller, 1988; Sigel, 1992; Smith, 2002; Stevens, 1984). Parents with greater knowledge tend to promote the optimal development of children as it increases the level of appropriate parental involvement (Bailey, 1993) and results in the overall better quality of parenting for children (Huang, O'Brien Caughy, Genevro & Miller, 2005; Reich, 2005; Hess, Teti, & Hussey-Gardner, 2004).

How Much Does the Typical Adult/Parent Know About Child
Development/Guidance?

The general consensus from the few existing studies is that most parents

know little[1] (e.g., Bigner & Gerhardt, 2014; Perry, 2013; Pillemer, 2011). The few

existing studies over the last several decades on this topic have primarily

investigated parent knowledge of developmental milestones and the physical

care of young children. The first known study assessing child development

knowledge examined the type of information mothers were most knowledgeable

about, and the information they most desired to learn about children's

development (Sperry & Gardner, 1965). Results showed that mothers were the

most informed about, and most desired information about, how to *physically* care

for infants, and that most lacked knowledge about overall child development.

The few studies subsequently conducted over the last 30 years have

reported similar findings (i.e., that parents lack accurate knowledge about child

development) (Al-Maadadi & Ikhlef, 2015; Ertem et al., 2007; Kliman & Vukelich,

1985; Ogg, 1975; Peters & Hoekelman, 1973; Reich, 2005; Shea & Fowler,

1983; Yankelovich & DYG Inc., 2000). For example, a study conducted in 1985

found that many parents overestimate and underestimate children's skills at

different ages, e.g., when a child can follow simple directions, when babies start

solid foods, when babies say their first word, or when children make 2-to-4 word

sentences (Kliman & Vukelich, 1985). More recent studies have found the same,

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[1] Dr. Bruce Perry, a top researcher and child trauma expert, for example has concluded
that our culture is "child illiterate" and "developmentally ignorant" (Perry, 2013).

i.e., that mothers expect too little too late, or too much too soon (Jahromi, Guimond, Umaña-Taylor, Updegraff, & Toomey, 2014; Karraker & Evans, 1996; Tamis-LeMonda, Shannon, & Spellman, 2002). Perhaps the most well known study on this topic was a national survey conducted in the U.S. in 2000 by Zero-to-Three, which measured parent knowledge of the development of children aged 0 to 3 years, as well as the policies that affect children. This study assessed knowledge on intellectual, emotional, and social development from age 0-3 years (Yankelovich & DYG Inc., 2000), and found that parents lack accurate knowledge about child development and they underestimate children's abilities at an early age. In addition, it was found that parents tend to value the types of play that are not beneficial to the development of young children (e.g., flashcards). This study also concluded that parents overestimate children's abilities, they believe young children can be spoiled, and they feel that spanking is a good disciplinary technique (although some did acknowledge some of its negative effects) (Yankelovich & DYG Inc., 2000).

Results of studies conducted after the year 2000 coincide with these findings. Parents are generally unaware of the timing of physical, social, emotional, and cognitive developmental milestones (Reich, 2005; Rikhy et al., 2010) and are unaware that sight, vocalization, social smiling, and overall brain development begin very early in life (and that they should begin to talk to their children early) (Ertem et al., 2007). Parents also tend to lack knowledge about sleep patterns at different ages and how to detect sleep problems (Schreck &

Richdale, 2011). The most recent studies published in 2015 on this topic continue to report similar findings, i.e., that mothers lack knowledge of typical child development and are more knowledgeable about physical care and safety (Al-Maadadi & Ikhlef, 2015; Safadi et al., 2015). The few studies that have focused on assessing parent knowledge of child *guidance* found that many parents approve of the use of corporal punishment and favor it as a form of discipline (Best Start Resource Centre, 2014; Taylor, Hamvas, Rice, Newman, & Dejong, 2011).

Results of studies from countries outside the U.S. are consistent with the above findings, i.e., that parents lack knowledge about early development and caregiving, and include Turkey (Ertem et al., 2007), Canada (Rikhy et al., 2010), Taiwan (Tsao, 1994), Qatar (Al-Maadadi & Ikhlef, 2015), Jordan, (Safadi et al., 2015), and Brazil (Ribas Jr. & Bornstein, 2005).

In sum, these studies demonstrate that adults lack accurate knowledge about child development and child guidance, they have inappropriate expectations for children's development, and are most knowledgeable on issues pertaining to physical care and safety. Additional shortcomings of studies assessing adults'/parents' knowledge about child development and child guidance are that they are limited in the range of issues addressed: for example, they do not include questions on child guidance or brain development, and instead generally focus on health and safety measures, developmental norms and milestones, and developmental principles relevant to very young children (up

to age three). Second, the participants of these studies were primarily married, white, well-educated women and for the most part, lack father/male participants. The two studies found on father knowledge only examined father knowledge as a predictor variable of how it impacted father involvement (Bailey, 1993; Roggman, Benson, & Boyce 1999). Few studies include ethnically-diverse participants. Third, the developmental age range focused on in these studies was mostly on development between the ages of 0-3, and did not address childhood or adolescent development. Fourth, few of the studies address parents' knowledge about developmentally-appropriate child guidance, or parent knowledge of the effects of commonly-used punishments such as time-outs or corporal punishments.

Summary and Purpose of Study

To date, studies of parent knowledge of child development and child guidance have focused primarily on parents' knowledge of developmental norms and milestones of children who are 0-3 years old. These studies have primarily assessed white, middle class mothers and have generally not included an ethnically-diverse sample, or males. In addition, there is very little research on how much parents know about appropriate child guidance, including the harmful effects of harsh rearing practices.

The purpose of the current study was to gain a more accurate understanding of what adult males and females understand about child

23

development and child guidance by empirically assessing knowledge of child development and parenting skills (i.e., child guidance) utilizing an ethnically-diverse sample. It was expected that 1) adults' knowledge about child development and child guidance would be very limited, and that 2) adult females would be more knowledgeable than adult males. Finally, it was expected that the amount of knowledge among ethnicities would not vary as it was expected that adults in general lack accurate knowledge about child development and guidance.

CHAPTER TWO

METHOD

Participants

Participants consisted of 705 adults (19.1% male; 80.7% female; 0.1% missing) recruited through CSUSB SONA system and by distributing the survey link via Facebook and email. Adults ranged in age from 18 to 35 years (M=21.99, SD=3.19). Participants came from diverse ethnic backgrounds: 6.4% Asian; 3.5% African American; 12.5% European American; 70.1% Hispanic; 0.4% Native American; 1.6% Middle Eastern; 5.2% Biracial; and 0.3% "other". (For the purpose of this study, participants who identified their ethnicity as Native American, Middle Eastern, or Other were grouped together due to their small numbers). The level of education completed was as follows: 0.1% did not complete high school; 31.2% graduated high school; 0.7% trade school; 56.5% some college; 8.7% graduated from college; 1.0% some post graduate work; and 1.8% graduate or professional degree. Out of the 705 participants, 10.5% were currently parents. Almost 24% of the participants had no previous coursework in child development; 51.6% had taken 1-3 classes in child development, and 25.3% had taken four or more classes.

Measures

The questionnaire was comprised of the following assessments.

<u>Parenting Knowledge, Skills, and Beliefs</u>

Four assessments measuring knowledge and beliefs about child development and child guidance were used. The first assessment was the *Adult Adolescent Parenting Inventory-version 2* (Bavolek & Keene, 1999). The AAPI-2 is a 40-item inventory designed to assess the parenting and child rearing attitudes of adolescents and adult parent and pre-parent populations (APPENDIX A). The inventory consists of five subscales: expectations of children, parental empathy towards children's needs, use of corporal punishment, parent-child family roles, and children's power and independence. Participants rated each item on a 5-point Likert scale (SA=Strongly Agree; SD=Strongly Disagree). Based on the known parenting and child rearing behaviors of abusive parents, responses to the inventory provide an index of risk (high, medium, low) for practicing behaviors known to be attributable to child abuse and neglect. The AAPI-2 is a validated and reliable inventory used to assess parenting attitudes; Chronbach's alpha=0.82. The AAPI-2 is written at a fifth-grade reading level.

The second assessment utilized was the *What Grown-Ups Understand About Child Development: A National Benchmark Survey.* This 64-item questionnaire, created by Yankelovich and DYG Inc. (2000), is designed to assess adults' (18 years and older) knowledge about child development and child and family policies (APPENDIX B). The survey contains nine subscales: when

26

and how children develop, supporting children in their development, the importance of play, expectations of young children, spoiling, discipline, adult and child relationships, preparation for parenthood, and policies. For the purpose of this study, the policy questions were omitted. The sampling error for this survey is plus or minus 1.8%.

The third assessment to be used is the *Engaging Families in the Early Childhood Development Story.* This 38-item questionnaire created by the Ministerial Council for Education, Early Childhood Development and Youth Affairs (Winter, 2010) investigates parents', caretakers', and the communities' knowledge about evidence-based information from the neurosciences about early childhood development and how parents access information about child development (APPENDIX C). The questions were derived by carefully reviewing neuroscience research about children aged birth-eight years. All survey questions required a forced choice response.

The fourth assessment is the *Outcomes of Physical Punishment Scale (OPP)* (Durrant, Rose-Krasnor, & Broberg, 2003) (APPENDIX D). Eight items from the OPP scale were used to assess parents' expectations for using corporal punishment (CP). Participants rated each item on the scale using a 5-point Likert scale (1=never; 5=always). The scale is divided into two subscales, one consisting of five items indicating positive expectations for CP use ($\alpha=0.80$), and three items indicating negative expectations for CP use ($\alpha=0.84$). Items from the two subscales were summed and averaged.

In addition to the above, five items were created to measure adults' knowledge about brain development. These included questions about brain development, toddler tantrums, the effects of letting children cry for a long period of time, the effects of experiencing rich language in the first three years of life, and the effects of experiencing neglect and abuse at a young age (APPENDIX E).

Items from the assessments were reorganized according to the following factors: child development and child guidance (see Table 1). Child development items referred to developmental milestones, care of children, and adults' ideas about children's development. Higher scores reflect more accurate knowledge. Child guidance items referred to child guidance and discipline techniques, with higher scores indicating greater knowledge of developmentally-appropriate, positive child guidance skills including knowledge of the harmful effects of corporal punishment. Variables were recoded and participants were given two points for correct/ideal answers and zero points for incorrect answer. For the child guidance questions, the number of points possible was 52, and for the child development questions the number of points possible was 210.

Table 1.

Items Comprising Each of the Examined Factors

Factors:	AAPI-2 (Bavolek & Keene, 1999)	What Grown-Ups Understand (Yankelovich & DYG Inc., 2000)	Engaging Families (Winter, 2010)	OPP (Durrant, Rose-Krasnor, & Broberg, 2003)	Items created for use in the current study
Child Guidance	1-17	1		1-8	
Child Development	18-40	2-29	1-16		1-5

Background information

Items included questions regarding age, ethnicity, gender, education, parents' educational level, number of children they have (if any), previous parenting classes taken, courses taken in child development, how prepared they felt for parenthood, how prepared they believe most parents are when they have their first child, and their source of knowledge for information about child development and child guidance (APPENDIX F). Some of these items were adapted from Winter (2010) and Yankelovich & DYG Inc., (2000).

Procedure

The survey was created using the Qualtrics software and was distributed via the CSUSB SONA system, through email, and Facebook. SONA participants received extra-credit for participating in the survey.

CHAPTER THREE

RESULTS

Since most of the respondents were through the CSUSB SONA research system which is only available to students in psychology and human development courses, the participants were first divided into three groups based on the number of child development classes taken (since it was expected that coursework in child development would significantly impact participants responses). Of the 705 participants, 24% had not taken any child development courses, 51% had taken between one and three courses, and 25% had taken four or more child development courses. The distribution of child development classes by sex and ethnicity is shown in Appendix G.

Primary Analysis

The first hypothesis stated that adults' knowledge about child development and child guidance would be very limited. To test this hypothesis, mean scores for the above three groups were computed. Results showed that participants' knowledge of child development was fairly high, and participants demonstrated more knowledge of child development than child guidance (Table 2).

Table 2.

Mean and Percentage of Correct Responses for Child Development and Child Guidance
Items by Child Development Coursework Taken (N=705)

	Child Development Coursework								
	None (n=167)			1-3 Classes (n=360)			4 or More (n=178)		
	M	(SD)	% items correct	M	(SD)	% items correct	M	(SD)	% items correct
Child Development scores*[a]	128.5	(20.7)	61%	138.3	(24.3)	66%	159.2	(22.7)	76%
Child Guidance scores**[b]	18.1	(8. 4)	35%	20.7	(9.1)	40%	28.7	(9.1)	55%

*   Maximum possible score for child development items: 210 points
** Maximum possible score for child guidance items: 52 points
[a]   Child development items referred to developmental milestones, care of children, and adults' ideas about children's development. Higher scores reflect more accurate knowledge.
[b] Child guidance items referred to child guidance and discipline techniques, with higher scores indicating greater knowledge of developmentally-appropriate, positive child guidance skills including knowledge of the harmful effects of corporal punishment.

Overall, the results showed that the amount of child development coursework impacted participants' child development and child guidance knowledge scores. For child development knowledge, participants who had taken child development classes had a higher percentage of correct answers. An ANOVA showed statistical significance for child development knowledge $F_{(2, 704)}=82.14$, p=0.000, with an effect size of $n^2=0.19$, suggesting large practical significance. When analyzing eta-squared, small effect size is 0.01, medium effect size is 0.06, and large effect size is 0.14 (Cohen, 1988). A Tukey HSD post hoc test showed there was a significant difference between participants with no child development classes and those who had taken between 1-3 child development classes (p=0.000), with an effect size of Hedges' g=-0.42 suggesting medium practical significance. When analyzing Hedges' g, small effect size is 0.2, medium effect size is 0.5, and large effect size is 0.8 (Hedges, 1981). There was also a significant difference between participants with no child development classes and those with four or more classes (p=0.000), with an effect size of Hedges' g=1.41 suggesting a large practical significance. Finally, there was a significant difference between participants who had taken between 1-3 child development classes and those with four or more classes (p=0.000), with an effect size of Hedges' g=0.88 suggesting a large practical significance.

An ANOVA computed on the mean scores for child guidance for the three groups was also significant: $F_{(2, 704)}=66.06$, p=0.000, with an effect size of $n^2=0.158$, suggesting large practical significance. A Tukey HSD post hoc test

33

showed that there was a significant difference between the no child development classes group and the group who had taken between 1-3 child development classes (p=0.007), with an effect size of Hedges' g=-0.29, suggesting small practical significance. There was also a significant difference between participants with no child development classes and those with four or more (p=0.000), with an effect size of Hedges' g=1.15, suggesting a large practical significance. Finally, there was a significant difference between participants who had taken 1-3 child development classes and those with four or more (p=0.000), with an effect size of Hedges' g=-0.85, suggesting large practical significance.

In summary, participants with four or more classes had higher scores for both child development and child guidance compared to the other groups.

The second hypothesis stated that females would be more knowledgeable about child development and child guidance than males. To test this hypothesis, a t-test was performed on the male and female mean scores for child development and child guidance knowledge (Table 3). Results showed that females scored significantly higher than males for child development (t(702)= -6.48, p<0.001), with an effect size of d=-0.62, suggesting large practical significance. Females also scored higher than males on child guidance knowledge (t(702)=-4.3, p<0.001), with an effect size of d=-0.41, suggesting moderate practical significance. When analyzing Cohen's d, small effect size is 0.2, medium effect size is 0.5, and large effect size is 0.8 (Cohen, 1988).

Table 3.

T-Test Results Comparing Male's vs. Female's Child Development and Child Guidance

Knowledge (N=704)

	Gender								
	Males (n=135)			Females (n=569)					
	M	(SD)	% items correct	M	(SD)	% items correct	t	df	Sig.
Child Development Knowledge*[a]	128.7	(22.8)	61%	144.2	(25.4)	69%	-6.48	702	.000
Child Guidance Knowledge**[b]	18.9	(9.0)	26%	22.9	(9.9)	44%	-4.30	702	.000

* Maximum possible score for child development items: 210 points
** Maximum possible score for child guidance items: 52 points
[a] Child development items referred to developmental milestones, care of children, and adults' ideas about children's development. Higher scores reflect more accurate knowledge.
[b] Child guidance items referred to child guidance and discipline techniques, with higher scores indicating greater knowledge of developmentally-appropriate, positive child guidance skills including knowledge of the harmful effects of corporal punishment.

The third hypothesis stated that child development and child guidance scores would be similar among the different ethnic groups. To test this hypothesis, participants were first grouped into the following five ethnic groups: Asian-American, African-American, European-American, Hispanic, and "Other" (which included the small number of Native American, Middle Eastern, and "Other" participants). ANOVAs were then computed on the child development and child guidance mean scores across ethnic groupings and showed that the amount of knowledge varied somewhat among the different ethnic groups. For the child development scores, ANOVA results showed there was a significant difference, $F (4, 704)= 9.34$, $p=0.000$, with an effect size of $n^2=0.051$, suggesting moderate practical significance. Tukey HSD post hoc test showed there was a significant difference between European Americans and Hispanics ($p=0.000$) (with European Americans scoring 154.1 and Hispanics scoring 139.6), with an effect size of Hedges' $g=0.58$, suggesting a moderate practical significance. There was a significant difference between Asian American and European American scores ($p=0.000$) (with Asian Americans scoring 143.8 and European-Americans scoring 154.1), with an effect size of Hedges' $g=1.02$ suggesting a large practical significance. Finally, there was a significant difference between Asian Americans and Other ($p=0.018$) (with Asian-Americans scoring 129.2 and Other scoring 144.8), with an effect size of Hedges' $g=0.61$ suggesting moderate to large practical significance. The post hoc test also showed the difference between Asian Americans and Hispanics was

approaching statistical significance (p=0.060), with an effect size of Hedges'

g=0.41 suggesting moderate practical significance. There was also a significant

difference in child guidance knowledge among the five ethnic groupings $F_{(4, 704)}$=3.04, p=0.017, with an effect size of n^2=0.017, suggesting small practical

significance (Table 6). A Tukey HSD post hoc test showed a significant

difference between European Americans and Hispanics (p=0.021) (with

European Americans scoring 25.1 and Hispanics scoring 21.6), with an effect

size of Hedges' g=0.35 suggesting small practical significance.

In sum, the child development and child guidance scores among the

different ethnic groups differed with European Americans having the highest

average scores for both child development and child guidance knowledge.

Table 4.

Mean and Percentage of Correct Responses for Child Guidance and Child Development Knowledge by Ethnicity

| | Ethnic Grouping | | | | | | | | | | | | | |
| | Asian (n=45) | | | African American (n=25) | | | European American (n=88) | | | Hispanic (n=494) | | | Other (n=53) | | |
	M	(SD)	%	M	(SD)	%	M	(SD)	%	M	(SD)	%	M	(SD)	%
Child Development*[a]	129.2	(25.1)	62%	143.8	(18.7)	68%	154.1	(24.0)	73%	139.6	(25.4)	66%	144.8	(25.8)	69%
Child Guidance**[b]	22.5	(9.9)	43%	19.1	(7.9)	37%	25.1	(10.5)	48%	21.6	(9.9)	42%	23.1	(9.4)	44%

*   Maximum possible score for child development items: 210 points

** Maximum possible score for child guidance items: 52 points

[a] Child development items referred to developmental milestones, care of children, and adults' ideas about children's development. Higher scores reflect more accurate knowledge.

[b] Child guidance items referred to child guidance and discipline techniques, with higher scores indicating greater knowledge of developmentally-appropriate, positive child guidance skills including knowledge of the harmful effects of corporal punishment.

Additional Analysis

Participants were asked several additional questions regarding parenting. First, they were asked whether they had ever taken any parenting classes (and if not, why). Results showed that for the total group, only 18% of the participants had taken a parenting class (Table 5). Most of the participants who had taken parenting classes were parents and female.

Table 5.

Results of Question: Have You Ever Taken a Parenting Class?

	Total Group (N=707)	Gender		Parenthood Status	
		Males (n=135)	Females (n=569)	Parents Only (n=74)	Non-Parents Only (n=631)
	%	%	%	%	%
Yes	18%	5%	21%	36%	16%
No	81%	93%	78%	64%	83%

The reasons for not taken parenting classes are listed in Table 6, and generally show that most participants had not taken parenting classes because they were not a parent and were not expecting to be one soon.

Table 6.

Reason For Not Taking a Parenting Class

Reason:	Total Group N=354	
	n	%
Not a parent/not expecting to be a parent soon	206	58%
Not needed/no interest	49	14%
No chance/no time	33	9%
Had not thought about taking them	23	7%
No information about local parenting classes	11	3%
Parenting classes not part of major	11	3%
Planning to take them in future	6	2%
Focus on career before thinking about children	5	1%
Previously have been teachers/caregivers and do not feel the need to take parenting classes	5	1%
Had already taken child development classes	5	1%

Participants were next asked how prepared they felt for parenthood. Results showed that as a group, most participants felt either totally or slightly prepared; results were similar for male and female participants (Table 7). With parenthood status taken into account, more than half of current parents felt not prepared at all and close to half of non-parents reportedly felt "totally prepared".

Table 7.

How Prepared Participants Reported They Feel/Felt for Parenthood

	Total Group (N=698)	Gender		Parenthood Status	
		Males (n=132)	Females (n=566)	Parents (n=74)	Non-Parents (n=624)
	%	%	%	%	%
Totally prepared	44%	49%	42%	5%	48%
Slightly prepared	39%	33%	40%	39%	39%
Not really prepared at all	12%	10%	12%	55%	6%
Not sure	5%	6%	5%	0%	6%

Next, participants were asked how prepared they thought first-time parents in the U.S. were for parenthood. Results showed that most participants thought first-time parents were totally prepared for parenthood (Table 8). Very few participants (1-2%) across all groups felt that most parents were not really prepared at all.

Table 8.

How Prepared for Parenthood Participants Thought First-time U.S. Parents Were

	Total Group (N=698)	Gender		Parenthood Status	
		Males (n=132)	Females (n=566)	Parents (n=74)	Non-Parents (n=624)
	%	%	%	%	%
Totally prepared	61%	61%	64%	64%	61%
Slightly prepared	34%	30%	32%	32%	34%
Not really prepared at all	1%	2%	1%	1%	1%
Not sure	4%	5%	3%	3%	4%

Next, participants were asked *"how often"* they knew where to get

information about child development and child guidance, and what resources

they tended to use. Regarding "how often" they knew where to get this

information, 8.2% answered all of the time, 28.7% most of the time, 34.7%

sometimes, 19.1% rarely, and 9.3% never. Finally, when asked *where* they are

most likely to get information about child development and child guidance, results

showed that they are most likely to get information from family, healthcare

providers (doctors, nurses), the Internet (informational websites), parenting

classes, and teacher/childcare providers (Table 9).

Table 9.

Likelihood of Using the Following Resources for Information About Child Development and Child Guidance.

Resources:	Very likely: (%)	Some what likely: (%)	Not very likely: (%)	Not at all likely: (%)	I don't know (%)
Family	65.5	23.0	6.8	4.2	0.6
Friends	27.7	44.4	19.9	6.6	1.3
Parenting Groups or Workshops	38.3	32.8	16.2	10.3	2.5
Childcare provider or teacher	41.4	37.0	12.2	7.2	2.2
Health care providers (doctors, nurses)	58.5	29.5	6.9	3.8	1.3
Parent helpline	18.0	20.3	26.7	28.4	6.7
Pamphlet or poster	8.0	28.1	31.1	27.6	5.2
Magazine	5.7	26.4	32.0	31.9	4.1
Books	33.7	44.1	11.9	8.4	1.9
Newspaper	3.0	14.9	35.6	42.7	3.8
Internet (information websites)	34.9	43.8	12	7.8	1.4
Facebook, Twitter, or other social networking sites	3.8	14.5	28.6	51.2	1.9
YouTube	6.4	22.8	29.1	39.1	2.6
TV, movies, or documentaries	8.2	26.5	30.1	31.7	3.5
Videos or DVDs	5.5	28.0	32.0	30.9	3.5
Radio	2.0	12.1	36.1	46.3	3.4
Parenting classes	43.7	34.5	11.4	8.7	1.7
Social worker	20.9	32.1	20.6	19.3	7.0

CHAPTER FOUR

DISCUSSION

The purpose of this study was to assess adults' knowledge of child development and child guidance. Overall, the findings of this study suggest that adults' knowledge varied with their previous college coursework in child development as well as with their gender and ethnicity. These findings are outlined in more detail below.

Hypothesis 1

The first hypothesis stated that adults would generally lack knowledge about child development and child guidance. This hypothesis was only partially supported as results showed that participants had more knowledge than expected about child development. Not surprisingly, however, they had little knowledge about child guidance.

Since most of the participants were students in the CSUSB psychology department, it is likely that majoring in psychology and child development gave them some exposure to child development concepts, thus generating higher child development scores compared to a broader, less educated participant sample from outside the university setting. Overall, participants with no reported coursework in child development answered more than 60% of the child development questions correctly. Those who had taken four or more child development classes answered approximately 80% of the questions correctly.

These latter findings are consistent with previous studies that have shown that child development courses and workshops help adults better understand child development and child guidance (e.g., Chang, Park, & Kim, 2009; Jarvis & Graham, 2004; Nieuwboer, Fukkink, & Hermanns, 2013; Webb & Sheeran, 2006). When adults' child development knowledge is enhanced, adults' behaviors and attitudes towards children are also improved and they tend to become more developmentally-appropriate in their interactions with children (Nieuwboer, Fukkink, & Hermanns, 2013; Teubert & Pinquart, 2010). In the present study, close to 80% of the participants had taken at least one child development class and even one class or workshop on child development has been found to influence adults' knowledge of child development and child guidance (Chang, Park, & Kim, 2009; Jarvis & Graham, 2004; Roosa, 1984; Sandler, Schoenfelder, Wolchik, & MacKinnon, 2011).

The finding that participants had a greater amount of child development knowledge than expected may also be due to the fact that more than half of the participants had completed at least some college. Studies have found that adults with more education tend to have more knowledge about child development (e.g., Al-Maadadi & Ikhlef, 2014; Benasich & Brooks-Gunn, 1996; Bornstein, Cote, Haynes, Hahn, & Park, 2010; Dichtelmiller et al., 1992; Ertem, et al., 2007; Ribas & Bornstein, 2005; Tsao, 1994).

The finding that participants were not as knowledgeable about child guidance compared to child development was not surprising. While child

47

guidance knowledge did vary with the amount of child development coursework taken (as some child development courses do cover child guidance), participants overall had less knowledge in this domain than in the child development milestones. One possible explanation for this is that adults' ideas about child guidance are generally based on how they were parented (Kind, 2005; Meurer, 1995; Sroufe et al., 2005), and most individuals experienced discipline techniques that were not beneficial to their development such as spanking, yelling, and shaming (Kind, 2005). Most adults are not aware of positive guidance strategies, and thus do not employ them when interacting with children (Best Start Resource Centre, 2014; Taylor, Hamvas, Rice, Newman, & Dejong, 2011). Most adults in the U.S. actually have positive views about spanking and timeouts (Yankelovich & DYG Inc., 2000), even though the research clearly shows that these forms of discipline have negative effects on children's development (Gershoff, 2010).

Adults generally wish for children to grow up to be responsible, respectful, and have good morals, and they tend to believe these goals can be achieved through physical discipline and fair punishments (Coldron & Boulton, 1996; Taylor, Hamvas, Rice, Newman, & Dejong, 2011). These ideas date back many centuries (e.g., Aries, 1962; DeMause, 1974). In the last century, adults have been advised by behaviorists to withhold from children any forms of affection; the idea was that too much love was dangerous for children because it spoiled them (e.g.,Watson, 1928). Decades of research has now made it abundantly clear that

children learn best when adults are warm and use positive guidance with children, not harsh discipline or any form of punishment (Durrant & Ensom, 2012; Gershoff, 2010). Positive guidance teaches children the skills they need to grow up to be responsible and respectful adults who make ethical decisions (Gartrell, 2012). Clearly, there still exists a large gap between what most people *think* children need in terms of discipline and what research actually shows.

Low levels of child guidance knowledge may also be related to the idea that most of the information that adults seek from others (e.g., doctors, family, caregivers) is about children's *development* and whether or not it is falling within the norms, not child guidance (Goodnow & Collins, 1991; MacPhee, 1983; McKim, 1987; Shea & Fowler, 1983; Vukelich & Kliman, 1985). Studies show that adults are more receptive to hearing information about whether or not their child is developing normally than they are about child guidance strategies as they do not want others to believe they do not know how to raise their own children (Berkule-Silberman, Dreyer, Huberman, Klass & Mendelsohn, 2010; Biglan & Metzler, 1998). Adults often become defensive, in fact, when somebody tells them about guidance strategies that are different (and perhaps more beneficial) than the ones they currently use (Dumka, Garza, Roosa, & Stoerzinger, 1997; O'Key & Hugh-Jones, 2010; Rohrbach et al., 1994; Spoth & Conroy, 1993; Spoth & Redmond, 2000; Wahler, Leske, & Rogers, 1979). Parents may even say, "I do not need anybody to tell me how to raise my children" (O'Key & Hugh-Jones, 2010).

Many of the ideas and beliefs about resistance towards learning positive child guidance strategies can be tied back to the concept of "childism", which is the prejudice against children and the belief that children are property and can be controlled (Pierce & Allen, 1975; Young-Bruehl, 2012). Stating phrases like, "What I do with my children is my business" implies that the child has no ownership of themselves and thus belongs solely to the parent (Kind, 2005). This results in adults not valuing or respecting young children, and often times placing their own needs, desires, hopes, and fears above those of children's (Pierce & Allen, 1979). A belief in "childism" may also condone the use of physical punishments and harsh discipline, as many parents see this as a form of showing love and as a way to teach children right from wrong (Kind, 2005).

Hypothesis 2

Hypothesis 2 predicted that females would be more knowledgeable than males about both child development and child guidance. This hypothesis was supported. These findings are consistent with previous studies which have found that females tend to know more than males about child development and child guidance (Bailey, 1993; Kliman & Vukelich, 1985; Ribas & Bornstein, 2005; Tsao, 1994), possibly because mothers/females spend more time with children (Craig, 2006; Yeung, Sandberg, Davis-Kean, & Hofferth, 2001). Cultural gender roles likely play an enormous role as from early on, most girls are taught and are expected to be more nurturing and caring than boys (Witt, 1997). Although

gender roles are slowly changing, many females still assume the majority of the responsibility of taking care of children and guiding children's development, while males tend to be more involved in the social life of children (e.g. play, outings, social interactions) (Bailey, 1993; Cabrera, Shannon, & Tamis-LeMonda, 2007; Ribas & Bornstein, 2005; Tsao, 1994).

Hypothesis 3

The third hypothesis stated that knowledge about child development and child guidance would be similar across the different ethnic groups included in this study. Results, however, showed a significant difference between the ethnic groupings for both child development and child guidance knowledge.

European-Americans scored higher than the other groups on the child development questions, while Asian-Americans scored the lowest. Culture may play an important role in how adults view children's development, and in the knowledge about the timing and sequence of "expected" or "normal" developmental milestones. Families of different backgrounds have different beliefs and thus may focus on different ideas, goals, and skills when thinking about children (Goodnow & Collins, 1991; Hoffman, 1988; Super & Harkness, 1982). European-American families tend to emphasize nurturance and guidance when it comes to children (Kelley & Tseng, 1992), while Asian-Americans tend to focus on achievement (Lin & Fu, 1990; Staples & Mirande, 1980). In Asian cultures children are expected to obey their parents unquestioningly and fulfill

their expectations, and children are expected to be compliant and have respect for authority (Wang & Phinney, 1998). Studies show that Asian-American caregivers expect children to develop emotional maturity (self-control), compliance, and social courtesy skills at a young age (Hess, Kashiwagi, Azuma, Price, & Dickson, 1980).

Participants' scores for child guidance varied somewhat across ethnicity. The primary difference was between European-American and Hispanic participants with European-American participants scoring significantly higher than Hispanic participants. This finding is consistent with previous studies that show non-white racial groups tend to know less about child development (and hence child guidance) than white racial groups (Reich, 2005), thus unconsciously affecting their parenting behaviors (Goodnow & Collins, 1991; Hoffman, 1988; Super & Harkness, 1982). Research studies have found that European-Americans tend to use a more *authoritative* parenting style (Hammer & Turner, 1990; Rodriguez & Olswang, 2003), and as mentioned above, they tend to score higher on measures of sensitivity, consistency, nurturance, and rule setting (Kelley & Tseng, 1992). Authoritative parenting/caregiving is more consistent with positive guidance strategies, which is why they may have scored higher on the child guidance items. Conversely, Hispanics tend to use more of an *authoritarian* parenting style (Rodriguez & Olswang, 2003), placing a larger emphasis on independence, self-control, obedience, and children getting along with others (Julian, McKenry, & McKelvey, 1994). Authoritarian parents/caregivers tend to

use more discipline and punishment strategies, which may have contributed to them scoring lower on the child guidance items.

Another explanation for this difference in scores is that the questionnaires used in this study were developed primarily for European American participants. This could indirectly affect the scores of other ethnic groups.

Additional Analysis

Additional analyses revealed that overall, few participants had taken parenting classes. Those who did were primarily female (21%) and were already parents (36%). Why so few, given that parenting is such a difficult and challenging job? As stated above, most parents parent the way they were parented (Kind, 2005), and most look to family and friends for advice (Goodnow & Collins, 1990; MacPhee, 1983; McKim, 1987; Shea & Fowler, 1983; Vukelich & Kliman, 1985), especially low-income mothers (Keller & McDade, 2000). There are also several myths about parenting classes that may prevent adults from seeking help and guidance in parenting (Trevor, 2013). First, many parents believe that parenting classes are only for parents dealing with their child's challenging behaviors (Trevor, 2013). This is a myth because parenting classes focus on a variety of topics like developmental milestones, child guidance strategies, school readiness, as well as how to deal with challenging behaviors (Kind, 2005). Parents don't have to wait until there is a problem to get help; there is a lot they can learn about children even before they become parents (Kind,

2005). Second, most adults believe that parenting comes "intuitively" and there is therefore no need to take classes (Trevor, 2013). This is a myth because parenting is a *learned* behavior, and that what comes intuitively is to parent the way we were parented (Kind, 2005). Third, parents tend to think they will be required to share their personal life with strangers (Trevor, 2013). Many parents who take parenting classes actually find relief in knowing that others are experiencing similar thoughts and frustrations about parenting, and have similar family experiences; parenting classes actually serve as social support for many (Hanna, Edgecombe, Jackson, & Newman, 2002; Telleen, Herzog, & Kilbane, 1989). Fourth, parents believe classes take too long and too much time (Trevor, 2013). The classes may be time-consuming, but in the long run they end up saving parents countless hours of nagging, feeling frustrated, yelling, and trying to get children to cooperate (Trevor, 2013). Fifth, parents believe parenting classes are for people who don't know what they are doing (Trevor, 2013). On the contrary, after taking parenting classes many parents feel that their parenting skills are enhanced due to the new tools and strategies they learned, and parents feel more positive, confident, and optimistic about their role as a parent (Feinberg, Jones, Kan, & Goslin, 2010; Gordon, 2008; Hanna, Edgecombe, Jackson, & Newman, 2002; Nolan, et al., 2012; Vandenhaoudt et al., 2010).

Participants in the present study listed the main reason for not taking parenting classes as not being a parent and not expecting to be one soon. Research shows, however, that taking classes *before* parenthood actually helps

adults understand what to expect once they do become parents (as opposed to trying to figure everything out as it is happening) (Hanna, Edgecombe, Jackson, & Newman, 2002; Nolan, et al., 2012). Being informed about child development and child guidance is beneficial to any adult, since most adults interact and/or encounter children frequently (e.g., relatives, siblings, own children, at the store, in the community) (Kind, 2005). There are many advocates for the notion that parenting classes should be taught in high school (Kind, 2005) as teenagers will gain insight into adult responsibilities, learn how children develop and what to expect at each stage, and learn how to interact with children at a developmentally-appropriate level (Kind, 2005). Teens who take parenting classes in high school are more likely to want to delay parenthood due to learning about the important impacts parents have on children's development (Kind, 2005). Parenting education is essential as it teaches what healthy childrearing is (Kind, 2005). This information is valuable at any age, especially from adolescence onward.

In the present study, when participants were asked how prepared they felt for parenthood, many *non-parents* said they felt totally prepared (48%), while many *parents* said they felt not really prepared at all (55%). These findings are consistent with previous findings that show non-parents rate themselves higher than parents on preparedness for parenthood (Yankelovich & DYG Inc., 2000). Becoming a parent has been shown to make people feel unprepared and in need

of more guidance as once parents have children they come to the realization that they are not equipped with the right tools to be a parent (Gordon, 2008).

When participants were asked how prepared they thought first-time parents in the U.S. were for parenthood, most participants felt parents were totally prepared for parenthood regardless of gender and parenthood status. These findings differ from previous studies which state that non-parents felt first-time parents are only slightly prepared or not prepared at all, while a third of parents felt others were totally prepared (Yankelovich & DYG Inc., 2000). Participants in the current study may feel that first-time parents are totally prepared because in modern society, knowledge is easily accessible via the Internet (e.g., social media, YouTube, blog post, online magazines). Most of our participants were current college students, and research shows that college students readily use the Internet to seek knowledge and many even say it has enhanced their education (Jones, 2002; Kennedy, Judd, Churchward, Gray & Krause, 2008). Tech-savvy college students may perceive others as well-versed in seeking knowledge as they are. Conversely, these results could also be another indication of the general public's lack of understanding of the challenges and complexities that come with raising children.

When asked how often they knew where to get information regarding child development and child guidance, most participants in the present study indicated that "most of the time" or "sometimes" they knew where to get information. Currently, there are many books, websites, and classes that claim to help

parents learn about child development and child guidance. A key challenge, however, is making sure parents are getting *accurate* information as there are many parenting materials and programs that are not research-or evidence-based, and they often advocate for using discipline techniques that are detrimental for children's development (e.g., time-out, ignoring children's behavior) (Collins, 2012). Many blog posts on the internet, for example are written by parents and are solely based on writer's own experiences and opinions. Many people believe everything posted on the internet is credible information, when at times this isn't the case (Flanagin & Metzger, 2000).

Finally, when asked where they were most likely to get information about child development and child guidance, participants in the present study most frequently named family members and healthcare providers. These findings are consistent with findings of other studies that suggest most adults get information about child development and childrearing from their own mother and/or their primary physician (e.g., Berkule-Silberman, Dreyer, Huberman, Klass & Mendelsohn, 2010; Goodnow & Collins, 1990; MacPhee, 1983; McKim, 1987; Safadi et al., 2015; Shea & Fowler, 1983; Vukelich & Kliman, 1985; Yankelovich & DYG Inc., 2000). While adults may believe that their families know best due to the experience they have from already having raised children, this information is often inaccurate and full of myths (Kind, 2005).

Similarly, adults may believe that physicians are well-versed when it comes to child development knowledge, but most doctors know about physical

care and illnesses, not about how to raise children and what is optimal for a child's holistic development (e.g., cognitive, emotional, social, physical) (Haggerty & Friedman, 2003; Macphee, 1983; Richmond, 1967). Most pediatricians only take classes in general medicine, and may take child development classes as electives (with the main focus being physical health) (Haggerty & Friedman, 2003).

A third resource identified by participants as being most likely to be used are parenting classes/workshops. This may be the most beneficial place to get information, especially if parent educators are well trained and are implementing research-and/or evidence-based parent curricula.

Limitations and Future Research

There were several limitations that may have impacted the results of this study. First, most participants came from the online SONA system, which is only available to students taking psychology or human development courses. As mentioned previously, these students likely had more knowledge about child development and child guidance compared to the general public outside of university setting. Future research should aim to gather participants from settings outside a college campus.

A second limitation is that participants were not asked to distinguish between the types of child development classes taken (e.g., history of child development, child guidance, infant and toddler development, cognitive

development, etc.). Future research can examine if there is a difference in child development and child guidance knowledge based on the type of child development classes taken.

A third limitation of this study is that most of the participants were Hispanic, a reflection of the general student population at the university. Future research could aim to gather more equal representations from all of the major ethnic groups as this may result in a more accurate picture of ethnic variations in child development and child guidance knowledge.

Lastly, the majority of our participants were female. This most likely occurred because there tends to be more females than males in psychology and human development classes at the site of the present study. Future research could focus on including more equal numbers of males and females to achieve a better understanding of males' beliefs and knowledge about child development and child guidance.

Summary and Conclusions

Adults in this study demonstrated to be somewhat knowledgeable in child development, while lacking knowledge in child guidance. The number of child development classes taken appeared to be the most influential factor impacting child development and child guidance knowledge. Gender also influenced participants' scores, with females knowing more than males about both child development and child guidance. Ethnicity impacted both child development and

child guidance knowledge, with European Americans having the most knowledge about child development and child guidance. Many of the findings in the present study were consistent with previous research findings particularly regarding adults' knowledge of child development. Few studies have examined knowledge about child guidance strategies, and the present study demonstrates that overall participants knew fairly little about positive ways to guide children's behavior and development.

Findings from this study emphasize the importance of child development workshops and classes, not just for parents, but for adults in general. Parent education workshops should focus not only on care and developmental milestones, but also on developmentally-appropriate ways to interact with children and guide children's behavior that are research- and evidence-based.

Since most participants tend to seek information from doctors and nurses, it should be a requirement for health care providers to have proper training in both child development and child guidance. Information about child development and child guidance should also be provided in hospital/clinic waiting rooms and available as well to all caregivers of children, e.g., grandparents, males etc.

The quality of parenting a child receives has the potential to either enhance a child's development or to deprive them from optimal development. Child development and brain research studies all demonstrate the critical importance of parenting quality for children's lifelong development. Parenting quality has tremendous societal implications and costs as it influences children's

later mental health, school readiness and success, future relationship stability, and financial well-being as adults (Heckman, 2008, 2010; Mikulincer & Shaver, 2007, 2012; Sroufe, Duggal, Weinfield, & Carlson, 2000). From early on, children need to be cared by warm and sensitively-attuned adults that are going to meet their needs and set developmentally-appropriate limits. Parents with the most child development and child guidance knowledge are more likely to provide safe, warm, and enriching experiences for their children. One of the best ways to help parents gain more knowledge about child development and child guidance is for them to attend parenting classes/workshops. Now that we know what information adults know and what information adults are lacking it is crucial to find ways to effectively distribute knowledge about child guidance and child development to diverse populations.

Research should explore ways to get more adults to participate in parenting workshops and/or child development classes. Most adults appear to believe that everyone goes in fully prepared for parenthood, and although no one can be 100% prepared for the tremendous task of raising and taking care of a child, parenting classes do help. It would be beneficial if the perceptions of adults on preparedness for parenthood matched reality. It is the hope that as more research findings are disseminated to mainstream sources (e.g., magazines, social media, T.V., movies) adults will obtain more insight about child development and child guidance and place a greater importance on educating themselves about the early years of life.

APPENDIX A

ADULT ADOLESCENT PARENTING INVENTORY-VERSION 2

(AAPI-2)

Instructions:

There are 40 statements in this booklet. They are statements about parenting and raising children. You decide the degree to which you agree or disagree with each statement by circling one of the responses.

Strongly Agree- Check SA if you strongly support the statement, or feel the statement is true most of all the time.

Agree- Check A if you support the statement, or feel this statement is true some of the time.

Strongly Disagree- Check SD if you feel strongly against the statement, or feel the statement is not true.

Disagree- Check D if you feel you cannot support the statement or that the statement is not true some of the time.

Uncertain-Check U only when it is impossible to decide on one of the other choices.

Begin with Number 1 and go on until you finish all the statements. In answering them, please keep these four points in mind:
1. Respond to the statements truthfully. There is no advantage in giving an untrue response because you think it is the right thing to say. There really is no right or wrong answer-only your opinion.
2. Respond to the statements as quickly as you can. Give the first natural response that comes to mind.
3. Check only one response for each statement.
4. Although some statements may seem much like others, no two statements are exactly alike. Make sure you respond to every statement.

	Strongly Agree	Agree	Disagree	Strongly Disagree	Uncertain
01. Time-out is an effective way to discipline children.					
02. Strong-willed children must be taught to mind their parents.					
03. Spanking teaches children right from wrong.					
04. Strict discipline is the best way to raise children.					
05. Children can learn good discipline without being spanked.					
06. A good spanking never hurt anyone.					
07. Children learn respect through strict discipline.					
08. Hitting a child out of love is different than hitting a child out of anger.					
09. Spanking teaches children it's alright to hit others.					
10. Sometimes spanking is the only thing that will work.					
11. Children should do what they are told to do, when they're told to do it. It's that simple.					
12. Children should be taught to obey their parents at all times.					
13. It's ok to spank as a last resort.					
14. Children need discipline, not spanking.					
15. A good spanking lets children know parents mean business.					
16. "Because I said so" is the only reason parents need to give.					
17. A certain amount of fear is necessary for children to respect their parents.					
18. Children need to be allowed freedom to explore their world in safety.					
19. Children who receive praise will think too much of themselves.					
20. Children who are one-year-old should be able to stay away from things that could harm them.					
21. Babies need to learn how to be considerate of the needs of their mother.					
22. The sooner children learn to feed and dress themselves and use the toilet, the better off they will be as adults.					
23. Children have a responsibility to please their parents.					
24. Good children always obey their parents.					
25. In father's absence, the son needs to become the man of the house.					

26. Children should be aware of ways to comfort their parents after a hard day's work.					
27. A good child sleeps through the night.					
28. Children should be potty trained when they are ready and not before.					
29. Children who feel secure often grow up expecting too much.					
30. There is nothing worse than a strong-willed two-year-old.					
31. Children should know what their parents need without being told.					
32. Children should be responsible for the well-being of their parents.					
33. Letting a child sleep in the parents' bed every now and then is a bad idea.					
34. A good child will comfort both parents after they have argued.					
35. Children should be their parents' best friend.					
36. Children should keep their feelings to themselves.					
37. Parents who nurture themselves make better parents.					
38. Parents need to push their children to do better.					
39. Parents should be able to confide in their children.					
40. Parents who encourage their children to talk to them only end up listening to complaints.					

Bavolek S. J. & Keene R. (1999). *Adult-Adolescent Parenting Inventory AAPI-2: Administration and Development Handbook*. Park City, UT: Family Development Resources

APPENDIX B

WHAT GROWN-UPS UNDERSTAND ABOUT CHILD DEVELOPMENT:

A NATIONAL BENCHMARK SURVEY

Following are some questions about children and their development. Please give me your opinions on these:

1. At what age is it appropriate to spank a child as a regular form of punishment or do you think it is never appropriate to spank a child? Age_____ or Never Appropriate _____

2. When do you think a parent can begin to significantly impact a child's brain development, for example impact the child's ability to learn? _____years

3. At what age do you think most children begin to develop their sense of self-esteem? _____years

4. At what age do you think an infant will know the difference between his mother's voice and a stranger's voice? _____months

5. At what age do you think an infant or young child begins to take in the sights, sounds, and smells of their surrounding and reacts to them? _____months

6. At what age do you think a baby or young child can begin to sense whether or not his parent is depressed or angry, and can be affected by his parent's mood? _____months

Following are a few statements about children. Please tell me whether you think the statement is true or false.

7. Children's capacity for learning is pretty much set from birth and cannot be greatly increased or decreased by how the parents interacts with them. ____True ____False

8. In terms of learning about language, children get an equal benefit from hearing someone talk on TV versus hearing a person in the same room talking to them. ____True ____False

9. Parents' emotional closeness with their baby can strongly influence that child's intellectual development. ____True ____False

10. A child aged six months or younger who witnesses violence, such as seeing his father often hit his mother, will not suffer any long-term effects from the experiences, because children that age have no long-term memory. ____True ____False

11. I'd like your opinion on how important you think it is for children of different ages to spend time playing. Please use a 1 to 10 scale, (1=playing is not at all important to the child's development; 10= playing is crucial to the child's development). Use any number in between:

	Rating	Not sure
Five-year-old		
Three-year-old		
10-month-old		

12. Suppose a 12-month old walks up to the TV and begins to turn the TV on and off repeatedly while her parents are trying to watch it. It's impossible to know exactly why the child is doing this, however for each of the following reasons, please say how likely you believe that explanation is.

	Very likely	Somewhat likely	Not likely at all	Not sure
The child wants to get her parents' attention				
The child enjoys learning about what happens when buttons are pressed				
The child is angry at her parents for some reason, so she is trying to get back at them				

13. Here are different forms of play. Please use a 1 to 10 scale to rate each of the following play activities, (1=the activity is not at all effective in helping a child become a better learner; 10= means the activity is extremely effective in helping a child become a better learner. Use any number in between.

	Rating	Not sure
A six-month-old exploring and banging blocks		
A 12-month-old rolling a ball back and forth with her parent		
A two-year-old playing a computer activity		
A two-year-old having a pretend tea party with her mom		
A four-year-old making artwork using a computer art program		
A four-year-old memorizing flash cards		
A four-year-old collecting and sorting leaved in the yard		
A four-year-old making an art project with art supplies		
A six-year-old and his friends playing pretend firemen		
A six-year-old playing cards with his dad		

14. Suppose the cries of a three-month old are frequently not responded to by her parents and caregivers. In this case, how likely is it that the following is happening: very likely, somewhat likely or not at all:

	Very likely	Somewhat likely	Not likely at all	Not sure
The baby's self-esteem will be negatively affected				
The baby will learn to be independent				
The baby's brain development will be negatively affected				
The baby will learn good coping skills				

15. Should a 15-month old baby be expected to share her toys with other children, or is this too young of an age to expect a baby to share?

____Yes, 15-month-old can be expected to share

____No, too young to share

16. Should a three-year-old child be expected to sit quietly for an hour or so, be it in church or in a restaurant, or is three years old too young to expect a child to sit quietly for an hour?

____Three-year-old should be expected to sit quietly for an hour

____Three-year-old should NOT be expected

17. Suppose a six-year-old points a gun at a classmate and shoots him. Do you think it is possible that this six-year-old could have fully understood the results of his actions, meaning could understand that the classmate might die and never come back, or do you think that a six-year-old simply cannot understand these consequences?

____Six-year-old capable of fully understanding

____Six-year-old NOT capable of fully understanding

18. At what age do you think a child can experience real depression? _____

19. Generally speaking, at what age can most infants and children first do the following:

	Age	Not sure
Smile		
Say their first word		
Communicate by pointing to objects		
Begin pretend and fantasy play		
Fell shame or embarrassment for his or her actions		

20. There are different ideas regarding what can help a two-year old child develop intellectually and become a better learner. Please rate the following activities on a one to ten scale, where one means the activity is not at all effective in helping a child become a better learner, and a 10 means the activity is extremely effective in helping a child become a better learner. Use any number in between.

	Rating	Not sure
Playing Mozart as background music during play time		
Playing any type of music that the child enjoys during playtime		
Educational flashcards		
A healthy diet		
Watching educational shows on television		
Having the child play educational games on the computer by himself		
Climbing on playground equipment while being supervised		
A sense of safety and security		
Reading with the child		
Talking with the child		
Quality daycare for children of working parents		

21. Use a 1 to 10 scale (1=playing is not at all important; 10=playing is crucial to a child's social development).

	Rating	Not sure
Thinking about young children, how much impact do you think playing has on a child's social development, meaning her ability to interact with others?		
How much impact does play have on a young child's intellectual development, such as her ability to learn?		
How much impact does play have on a child's language skills?		

22. Some people say that frequent changes in childcare providers can positively impact an infant's development because it makes them more adaptable. Others say that infants need a lot of time to develop bonds of security with individuals, so frequent changes in care providers has a negative impact. Which for you agree with more, or do you think there really is no impact one way or the other?
____Frequent changes are positive   ____Frequent changes have no impact
____Frequent changes are negative   ____Not sure

23. Children usually have stronger bonds with parents who do not work and stay home than they do with parents who work full time outside of the home.
____Definitely true   ____Probably true
____Definitely false   ____Probably false

24. Children with fathers who are active in their lives tend to develop more self-confidence than children who lack an active father in their lives.
____Definitely true   ____Probably true
____Definitely false   ____Probably false

25. Children with fathers who are active in their lives tend to be better problem-solvers than children who lack an active father in their lives.
____Definitely true   ____Probably true
____Definitely false   ____Probably false

26. Some people say that a child's experiences in the first year of life have a major impact on their performance in school many years later. Others say babies 12 months and younger are too young for their experiences to really help or hurt their ability to learn in school later in life. Which do you agree with more?
____First year has a major impact on school performance.
____First year has little impact on school performance.
____Not sure.

27. Some people say that a six-month-old, because he is so young, cannot be spoiled, no matter how much attention his parents give him. Others say that a six-month-old can be spoiled. Which do you agree with more?
____Six-month-old too young to spoil
____Six-month-old NOT too young to spoil
____Not sure

28. Please tell me if you would rate the following behavior, on the part of a parent or caregiver, as appropriate OR as something that will likely spoil child if done too often:

	Appropriate	Will likely spoil the child	Not sure
Picking up a three-month-old every time she cries			
Rocking a one-year-old to sleep every night because the child will protest if this is not done			
Letting a two-year-old get down from the dinner table to play before the rest of the family has finished their meal			
Letting a six-year-old choose what to wear to school everyday			

29. How many babies (newborns to 12-month-olds) do you think one adult can appropriately care for in a 10-hour day? _____

Yankelovich, D. & DYG Inc. (2000). *What grown-ups understand about child development: A national benchmark survey.* Washington, DC, Civitas Corporation, Zero to Three, Brio Corporation.

APPENDIX C

ENGAGING FAMILIES IN THE EARLY CHILDHOOD

DEVELOPMENT STORY

The next few questions ask about what you think about looking after children. There are no right or wrong answers; we are just interested in your opinion.

	Strongly Agree	Agree	Disagree	Strongly Disagree	Uncertain
01. Compared to children's genes (what they're born with), a parent cannot make much of a difference to how a child's brain develops.					
02. Parents should comfort a baby quickly every time the baby gets upset or cries.					
03. Exploring and playing is important for how children learn language and math.					
04. Watching children's television helps children's brains develop better than playing.					
05. Young children get all the nutrition they need whether or not they eat breakfast, fresh fruit, and vegetables every day.					
06. It is important that children go to bed at about the same time every day.					
07. You need to be strict with a baby otherwise you will spoil them.					
08. You should only praise a child when they succeed at something.					
09. Young children learn how to act and behave from watching what adults and other children do.					
10. A one-year-old child should understand the difference between right and wrong.					

	Not Much	Quiet a Bit	A lot
11. How much touching, such as holding, rocking and cuddling, do very young children need?			
12. How much should adults talk to babies before they are 3 months old?			
13. How much do young children gain from knowing what is going to happen during their day?			
14. How much difference do the first 5 years of a child's life make for their learning compared with what happens when they get older?			
15. How important is it to read books to children before they are 4 months old?			
16. How much difference does it make to how well children learn at school if they do jobs with you around the house when they are little, such as sort clothes, set the table and put shopping away?			

Winter, P. (2010). *Engaging families in the early childhood development story.* Victoria, Australia. Ministerial Council for Education, Early Childhood Development and Youth Affairs.

APPENDIX D

OUTCOMES OF PHYSICAL PUNISHMENT SCALE

(OPP)

Following are some questions about children and their development. Please give me your opinions on these:

	Always	Regularly	Sometimes
01. How often do you think that physical discipline, such as spanking, of a child leads to obedience of parents?			
02. How often do you think that physical discipline, such as spanking, of a child leads to respect for parents?			
03. How often do you think that physical discipline, such as spanking, of a child leads to physical injury to the child?			
04. How often do you think that physical discipline, such as spanking, of a child leads to long-term emotional upset in the child?			
05. How often do you think that physical discipline, such as spanking, of a child leads to learning of acceptable behavior?			
06. How often do you think that physical discipline, such as spanking, of a child leads to increased child aggression?			
07. How often do you think that physical discipline, such as spanking, of a child leads to healthy family relationships later in life?			
08. How often do you think that physical discipline, such as spanking, of a child leads to a better sense of self-control?			

Durrant, J. E., Rose-Krasnor, L., & Broberg, A. G. (2003). Physical punishment and maternal beliefs in Sweden and Canada. *Journal of Comparative Family Studies*, 585-604.

APPENDIX E

SELF-CREATED ITEMS MEASURING KNOWLEDGE

ABOUT BRAIN DEVELOPMENT

01. What is the most important period for brain development regarding later learning and
    academic success?
    a) 0-3 years
    b) 3-5 years
    c) 5-12 years
    d) adolescence

	Not Much	Quiet a Bit	A lot
02. How much of an effect do you think that letting a child "cry it out" (cry for a long period of time) has on children's' brain development?			
03. How much of an effect do you think experiencing neglect and abuse has on children's brain development?			
04. How much of an impact does talking, reading books and/or singing during the first three years of life have on children's brain development?			

	Strongly Agree	Agree	Disagree	Strongly Disagree	Uncertain
05. Toddlers should be ignored when they are having a tantrum because they just want attention.					

Developed by Daniela Perez

APPENDIX F

DEMOGRAPHICS FORM

Demographics Form

Please answer the questions below.

1. What is your age? _____yrs

2. What is your gender? _____male   _____female

3. What is your ethnic background? (check one):
   _____Asian   _____Native American
   _____African American   _____Middle Eastern
   _____European American   _____Biracial: _____
   _____Hispanic   _____Other: _____

4. What is the highest level of education you have completed? (check one):
   _____have not finished high school   _____graduated high school
   _____trade school   _____some college (includes A.A. degree)
   _____some post graduate work   _____graduated from college (includes B.A or B.S. degree)
   _____graduate or professional degree
   (specify: _____)

5. What is the highest level of education your mother completed? (check one):
   _____have not finished high school   _____graduated high school
   _____trade school   _____some college (includes A.A. degree)
   _____some post graduate work   _____graduated from college (includes B.A or B.S. degree)
   _____graduate or professional degree
   (specify: _____)

6. What is the highest level of education your father completed? (check one):
   _____have not finished high school   _____graduated high school
   _____trade school   _____some college (includes A.A. degree)
   _____some post graduate work   _____graduated from college (includes B.A or B.S. degree)
   _____graduate or professional degree
   (specify: _____)

7. If you are currently (or have been) a college student, what is (was) your major?
   _____

8. How many classes in child psychology or child development have you taken? _____

9. Are you currently a parent? _____Yes   _____No
   9a. If yes, what are your children's ages? _____

10. Have you ever taken a parenting class? _____Yes _____No
    10a. If not, please explain why:_____

11. How prepared for parenthood do you feel right now?
    _____totally prepared   _____not really prepared at all
    _____only slightly prepared   _____not sure

12. In general, how prepared do you think most parents in this country are when
    they have their first child?
    _____totally prepared   _____not really prepared at all
    _____only slightly prepared   _____not sure

13. Thinking about times when you needed information about child development or raising children, how often did you know where to go to get this information?

    ____never   ____sometimes

    ____rarely   ____most of the time

                                  ____all of the time

14. When you misbehaved and were disciplined as a child, which of the following were used by your parents/caregivers?

    ____Time-out   ____Loss of privileges

    ____Spanking/hitting   ____Put on restriction/grounded

    ____Talked to   ____Other (please explain:_____)

15. Which of the following was used by your parent/caregiver most often?

    ____Time-out   ____Loss of privileges

    ____Spanking/hitting   ____Put on restriction/grounded

    ____Talked to   ____Other (please explain:_____)

16. Were you spanked as a child/teen? ____Yes ____No

17. As a child, how often were you spanked? Please circle the number that best matches how you feel.

Never	Not often	Sometimes	Often	Very often
1	2	3	4	5

18. As an adolescent, how often were you spanked? Please circle the number that best matches how you feel.

Never	Not often	Sometimes	Often	Very often
1	2	3	4	5

19. Which of the following discipline techniques do you use with children?

    ____Time-out   ____Loss of privileges

    ____Spanking/hitting   ____Put on restriction/grounded

    ____Talked to   ____Other (please explain:_____)

20. How often do you spank the children you interact with?

    ____never   ____many times a year

    ____once or twice   ____weekly or more

    ____a few times a year

21. How likely are you to use the following resources to get information about child development and child guidance? (please check one per category)

Resources:	Very likely:	Somewhat likely:	Not very likely:	Not at all likely:	I don't know
Family					
Friends					
Parenting Groups or Workshops					
Childcare provider or teacher					
Health care providers (doctors, nurses)					
Parent helpline					
Pamphlet or poster					
Magazine					
Books					
Newspaper					
Internet (information websites)					
Facebook, Twitter, or other social networking sites					
YouTube					
TV, movies, or documentaries					
Videos or DVDs					
Radio					
Parenting classes					
Social worker					

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APPENDIX G

DISTRIBUTION OF CHILD DEVELOPMENT CLASSES

BY SEX AND ETHNICITY

Number of Child Development Classes Taken by Gender

	Child Development Coursework		
	None (n=167)	1-3 Classes (n=360)	4 or More (n=178)
Male	38%	17%	5%
Female	62%	83%	95%

Number of Child Development Classes Taken by Ethnicity

	Child Development Coursework		
	None (n=167)	1-3 Classes (n=360)	4 or More (n=178)
Asian	8%	7%	3%
African American	1%	5%	2%
European American	8%	12%	18%
Hispanic	78%	68%	68%
Other	5%	8%	8%

APPENDIX H

INFORMED CONSENT

College of Social and Behavioral Sciences
Department of Psychology

Informed Consent
Thoughts About Children

Dear Participant,

This survey includes items about your experiences (and beliefs about) caring for children, your thoughts about how children develop, and your background.

Please know that your name will NOT be recorded anywhere on any form. Your responses will be completely anonymous (private) and will be grouped with those of other adults. We will not report or interpret any individual responses.

The amount of your time needed to complete these questionnaires is approximately 35 minutes. For your participation in this study, you may receive 2 unit of credit to be applied toward the research component for your course(s).

Of course, you are free to not answer any questions you choose, and you may stop your participation at any time without penalty or losing any benefits. If you choose not to participate, there is no penalty. Your participation in this study is entirely voluntary.

This study involves no risks beyond those routinely encountered in daily life, nor any direct benefits to you as a participant. Although we hope the results of this study will benefit society, you may not directly benefit from taking part in this research. The information you provide will help us to better understand what kinds of information would be the most helpful and useful to adults who enroll in future parent education classes we will be offering throughout the local community.

All data collected will be be kept in password protected computers in Dr. Kamptner's research laboratory and will be destroyed seven years after publication as per the American Psychological Association guidelines.

This project has been reviewed and approved by the Department of Psychology Institutional Review Board Sub-Committee of the California State University, San Bernardino, and a copy of the official Psychology IRB stamp of approval should appear on this consent form. The University requires that you give your consent before participating in this study. If you have any questions about the project, or wish to receive a copy of the results when they become available, please feel free to contact Dr. Kamptner at kamptner@csusb.edu. If you have any concerns about the study you may also contact the Department of Psychology Institutional Review Board Sub-Committee of the California State University, San Bernardino.

Thank you. Your participation is greatly appreciated!

Sincerely,

Daniela Perez
Principal Investigator
CSUSB Department of Psychology

Dr. Laura Kamptner
Department of Psychology

Please place a check or an X in the space provided below to acknowledge that you are at least 18 years old and have read and understand the statements above. By marking the space below you give consent to participate voluntarily in this study. Thank you very much.

Participant's X _____

Date: _____

CALIFORNIA STATE UNIVERSITY			
PSYCHOLOGY INSTITUTIONAL REVIEW BOARD SUB-COMMITTEE			
APPROVED	5/20/16	VOID AFTER	5/20/17
IRB #	H-16SP-22	CHAIR	

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