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THE UNIVERSITY OF SOUTHERN MISSISSIPPI

THE RELATION BETWEEN PARENTING STYLES AND ATTRIBUTIONAL STYLES
ACROSS GENERATIONS

by

Andrea Lea Pritchard-Boone

A Dissertation
Submitted to the Graduate Studies Office
of The University of Southern Mississippi
in Partial Fulfillment of the Requirements
for the Degree of Doctor of Philosophy

Approved:

December 2007
PARENTING STYLES AND ATTRIBUTIONAL STYLES ACROSS GENERATIONS

by

Andrea Lea Pritchard-Boone

Abstract of Dissertation
Submitted to the Graduate Studies Office of
The University of Southern Mississippi
in Partial Fulfillment of the Requirements
for the Degree of Doctor of Philosophy

December 2007
ABSTRACT
THE RELATION BETWEEN PARENTING STYLES AND ATTRIBUTIONAL STYLES ACROSS GENERATIONS
by Andrea Lea Pritchard-Boone
December 2007

The present study sought to establish a transgenerational relation of attributional style across generations as mediated by parenting style characteristics. The main purpose of the present study was to examine the stability of attributional styles across three generations, the consistency of parenting styles across two generations, and the relation between attributional styles and parenting styles across two generations. Further, analyzing three generations may provide information as to which transgenerational variables (i.e., grandparent parenting style, parent parenting style, grandparent attributional style, or parent attributional style) explained the most variance when predicting the child’s attributional style. Participants were 110 grandparent-parent-child triads. Results indicated that attributional style characteristics and parenting style characteristics were interrelated both across and within generations. Further, the ASM and ASM-C related to the ASQ and instruments of psychological distress, indicating evidence of validity.
DEDICATION

This dissertation is dedicated to my mother, Barbara Pritchard. She has been my strength and support through all of life’s obstacles. When the graduate road was the hardest and I was left facing failure, she told me not to walk that road and instead to fly over it. Little did she know, she was the wind beneath my wings the whole journey.
ACKNOWLEDGMENTS

The writer would like to thank this dissertation's chairman, Dr. Bradley A. Green, for his supportive guidance through this process. I would like to thank Dr. Green for his wisdom in knowing when to provide suggestion and when to allow this writer her creative and scientific freedom. I have further gratitude for his willingness to adopt me as a student after the retirement of my previous major professor. I am sure he could not have imagined how much work I would be. Dr. Green will have my eternal respect and gratitude for his pivotal role in my completion of my degree.

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Lastly, appreciation must be expressed to C. Brendan Clark, a fellow Green team member for his diligent and meticulous assistance with the collection of this dissertation's pilot data. Brendan has a bright future as a researcher and it has been my sincerest pleasure working closely with him on a series of projects.
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CHAPTER I
INTRODUCTION

Researchers (Bruce et al., 2006; Cole & Bruce, 2005) have suggested that given the relation amongst parenting styles and personality and cognitive correlates, how a parent parents a child may relate to how a child interprets life experiences, which can be inferred through the child’s attributional style. There is an established relation between parenting style and attributional style (Gamble & Roberts, 2005, Hjelle, 1996; Rodriguez, 2003), however, past research on this relation studied the variables within one generation, and did not address how parenting style and attributional style affect the development of attributional style and parenting style in subsequent generations. Transgenerational research is pivotal in examining the stability, environmental influence, and genetic heritability of various constructs. The present study sought to establish a transgenerational relation of attributional style across generations as mediated by parenting style characteristics. The main purpose of the present study was to examine the stability of attributional styles across three generations, the consistency of parenting styles across two generations, and the relation between attributional styles and parenting styles across two generations. Further, analyzing three generations may provide information as to which transgenerational variables (i.e., grandparent parenting style, parent parenting style, grandparent attributional style, or parent attributional style) explained the most variance when predicting the child’s attributional style.

Parenting Styles

According to Baumrind (1971), there are variations in the styles in which parents guide the socialization of their children, particularly when a parent disciplines a child’s behavior. Baumrind identified three specific parenting styles: authoritative, authoritarian, and permissive. Later, other researchers (Collins, Maccoby, & Steinberg, 2000; Lamborn, Mounts, Steinberg, & Dornbusch, 1991) divided the permissive parenting style into two distinctly different permissive styles: neglectful and indulgent. Each of these styles (authoritarian, permissive-neglectful,
permissive-indulgent, and authoritative) differ in expression of warmth, assertion of control, and maturity demand of the parent, and can be either supportive or unsupportive in tone.

As described by Baumrind (1991), the authoritarian parenting style is low in warmth, high in control, and high in maturity demands to the degree of being developmentally inappropriate. In general, this style consists of punitive and directive strategies, in which the parent asserts boundaries and the child is expected to follow without negotiation (Querido, Warner, & Eyberg 2002). The authoritarian parent attempts to shape, control, and evaluate the behavior and attitudes of the child in accordance with a set standard of conduct (Baumrind, 1971). Authoritarian discipline is often harsh and can be inconsistent in nature. Physical punishment and verbal criticism are commonly used by parents with this parenting style. Additionally, parents with this style may fail to provide justification for or explanation of their discipline, thus neglecting to teach their child the expectations placed on future behaviors (Baumrind, 1991). Many authoritarian parents prefer their children be fearful of them and in fact, some children of authoritarian parents attempt to avoid interaction with their parent (Barber, 2000).

The permissive parenting style can be high in warmth (indulgent type) or low in warmth (neglectful type). However, both the indulgent and neglectful types are low in control, and low in maturity demand to the degree of underestimating their child's abilities (Lamborn et al., 1991). Permissive-indulgent parenting is founded in absolute trust, democracy, and indulgence, while permissive-neglectful parenting is characterized by a relative disregard for child-rearing responsibilities altogether (Lamborn et al., 1991). Both types of permissive parents rarely discipline their children or give them household or self-care responsibilities (Querido et al., 2002). Permissive parents rarely enforce boundaries or follow through with demands when disciplining their children. Instead, permissive-indulgent parents employ negotiation or lengthy explanation, while permissive-neglectful parents often fail to discipline at all (Querido et al., 2002). Interestingly, permissive-indulgent and permissive-neglectful parents may seem wholly unaware

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of the disservice their parenting style does to their child's social development, tending to view themselves as fair and nice parents (Lamborn et al., 1991).

The authoritative parenting style is characterized as high in warmth and as employing situationally appropriate control and developmentally appropriate maturity demands (Baumrind, 1991). More specifically, authoritative parenting consists of emotional support, bi-directional communication, firm limit setting, and responsiveness (Querido et al., 2002). An authoritative parent tends to be rational and directive, encouraging verbal expression and autonomy within their children (Baumrind, 1971). The parent typically maintains authority and control by using explanation with appropriate discipline (Baumrind, 1991). Authoritative parents also commonly use reinforcement techniques to modify their children's behaviors, rather than simply resorting to punishment (Rodriguez, 2003). Authoritative parents are consistent with their discipline, which allows children a predictable and rational environment in which to develop (Querido et al., 2002).

It is important to note that there has been some debate as to whether to measure specific parenting practices or more global parenting styles as a more meaningful indicator of parenting (Amato & Fowler, 2002; Bean, Bush, McKenry & Wilson, 2003; Prevatt, 2003). To distinguish between the two, parenting styles have been defined not only by parenting behaviors, but also by attitudes and beliefs about parenting, whereas parenting practices are limited to specific behaviors performed in the course of parenting duties (Lee, Daniels, & Kissingler, 2006). Furthermore, while parenting behaviors comprise specific disciplinary goal-directed behaviors, parenting styles are not necessarily bound for a particular disciplinary outcome, rather they include the propensity for such an outcome and the beliefs related to that propensity (Lee et al., 2006). A recent study attempted to determine if the factor structure of Baumrind's parenting styles was supported by clusters of parenting behaviors. Utilizing a national database from the National Education Longitudinal Survey, researchers analyzed parenting practices questionnaires from 7,866 parents. The results indicated that four main factors emerged with items consistent with each of Baumrind's parenting styles. Researchers have suggested that parenting styles may be useful
descriptors of a parent’s dominant style but that specific behaviors and beliefs that comprise the parenting style have a direct relation to various dependent variables (e.g., social skills, Barber & Olsen, 1997; academic achievement, Barber, 2000; SES, Brenner & Fox, 1999). However, many parents possess specific parenting characteristics representative of more than one categorical style, making it difficult to label these parents as having one style over another (Brenner & Fox, 1999). Further, conceptualizing parenting styles categorically fails to take into account other specific parenting behaviors and beliefs consistent with another style, which, in turn, may neglect the impact of these behaviors and beliefs on day-to-day parent-child interactions (Lee et al., 2006).

Theoretically, some researchers suggest that measuring specific behaviors alone, outside of the context of other related behaviors and beliefs, may imply that only certain behaviors have influence, when in fact the interaction and compilation of a set of behaviors and beliefs (i.e., parenting style) may be responsible for the influence of parenting on child adjustment (Brenner & Fox, 1999). To address these concerns, researchers (Lee et al., 2006) suggested that the use of parenting styles rather than individual parenting practices in research is particularly useful when attempting to measure beliefs and behaviors rather than behaviors alone; however, they recommended measuring parenting styles continuously for the purpose of statistical comparison. Parenting styles as they relate to a specific set of parenting behaviors and beliefs were measured as continuous variables (i.e., dimensions of authoritarianism, authoritativeness, permissiveness from indulgence, and permissiveness from neglect) in the present study. Further, given that the present study sought to identify belief structures as important aspects of parenting, parenting style was identified as a more appropriate variable than parenting behaviors/practices alone.

Cognitive and Behavioral Effects of Parenting Styles

Parenting styles relate to specific cognitive and behavioral characteristics in children. Research has indicated that parenting styles are correlated with social-emotional and personality development of children, specifically, a child’s self-concept, competence, and interpersonal style (Lamborn et al., 1991). The authoritative parenting style is considered by some (Lee et al., 2006)
to be the “keystone of psychosocial wellness of children” (p. 253) and is related to positive outcomes such as better school performance, less substance use, and greater social competence (Amato & Fowler, 2002). The authoritarian style values “obedience and restricts autonomy” (Baumrind, 1966, p. 890) and is related to negative outcomes such as poorer social skills, negative mood, and feelings of insecurity and hostility (Barber & Olsen, 1997). Similarly, the permissive-indulgent style and permissive-neglectful styles are linked to negative indicators, like poor social skills, substance use, and relational aggression (Barber, 2000; Hart, Nelson, Robinson, Olsen, & McNeilly-Choque, 1998; Lamborn et al., 1991).

An authoritarian parenting style is thought to be related to cognitive and behavioral development of children through oppressive parent-child interactions and discipline practices (Lamborn et al., 1991). Because children of authoritarian parents have little control over their own lives, independent decision-making is discouraged, contributing to an underdeveloped sense of self (Baumrind, 1991; Gamble & Roberts, 2005; Lamborn et al., 1991). Authoritarian parenting is thought to contribute to poor social competence, particularly when inconsistent and threatening parent-child interactions were present (Gamble & Roberts, 2005). Further, in a previous study, adolescents of authoritarian parents scored lower on measures of child self-perception, indicating low self-esteem and diffused sense of self, likely a result of the child’s experience with critical verbal discipline (Lamborn et al., 1991). The harsh discipline related to the authoritarian style is believed to interfere with the child’s ability to process the parental message (Laible & Thompson, 2002). In other words, fear and anger experienced by the child in the moment of disciplinary action disrupts the child’s cognitive processing such that later the child is not able to report for what behavior they were punished. Children of authoritarian parents may develop difficulty trusting parental messages as a function of harsh discipline and lack of explanation, culminating in an insecure, mistrusting interpersonal style (Laible & Thompson, 2002).
Research suggests that this pattern is mirrored in adulthood with the creation and maintenance of dysfunctional relationships (Patock-Petkmam & Morgan-Lopez, 2006). Adult children of authoritarian parents were reported to have higher anxiety, depression, and substance use than adult children of authoritative parents (Patock-Petkmam & Morgan-Lopez, 2006). It has been suggested that emotional difficulties experienced by children of authoritarian parents are similar to those of maltreated children (Rodriguez, 2003). This pattern is evident even when there is no identifiable abuse in the authoritarian home (Rodriguez, 2003). In addition to cognitive and emotional problems, children of authoritarian parents exhibit more physical and relational aggression than children of authoritative parents (Hart, Nelson, Robinson, Olsen, & McNeilly-Choque, 1998).

A permissive parenting style, characterized by lack of contingencies, lack of discipline, and lack of boundaries, affects the cognitive and behavioral development of children by failing to guide and aid the development and organization of social, emotional and cognitive abilities (Lamborn et al., 1991). As a result, children of permissive parents are more similar to children raised in neglectful and abusive homes than to children raised in authoritative homes (Barber, 2000). Children of permissive parents are less self-reliant, curious, and self-controlled than children of either the authoritarian or the authoritative parents (Baumrind, 1971). Adolescents of permissive parents may tend to have a maladaptively high confidence in their social ability, which may be related to their manipulation of social interactions (Lamborn et al., 1991). Further, adolescents of permissive parents score high on measures of self perception (Lamborn et al., 1991) indicating an inflated sense of self, which may be a result of the child's experience governing the household. The permissive parent tends to have low expectations of his/her child, which may encourage the child to have low expectations of him/herself (Baumrind, 1971). Permissive parents avoid disciplining their children, likely because they want to avoid confrontations, often resulting in children who bully or intimidate their parents and peers (Barber, 2000; Baumrind, 1991).
Although most of the literature on the permissive parenting style has analyzed the permissive style in general without analyzing its subgroups, some literature exists addressing the characteristics of the indulgent and neglectful subtypes. Permissive-neglectful parenting and permissive-indulgent parenting are similar in that they both relate to problem behaviors, delinquency, low grades, and somatic complaints (Lamborn et al., 1991). Alternatively, unlike the permissive-indulgent type, permissive-neglectful parenting style related to low scores on measures of child self-confidence, self-reliance, and social competence (Barnes & Farrell, 1992; Lamborn et al., 1991). Girls of permissive-neglectful fathers displayed more relational aggression towards their classmates than girls of authoritative parents, indicating an externalizing pattern in a neglected child's behavior (Hart et al., 1998). Permissive-indulgent parenting is related to drug use and school misconduct, likely a result of a lack of respect for rules and authority (Lamborn et al., 1991). Some researchers proposed that the high levels of self-confidence, self-reliance, and social competence resulting from a permissive-indulgent parenting style could be better described as arrogance (Lamborn et al., 1991).

An authoritative parenting style is thought to be related to cognitive and behavioral development of children through a rational approach to consistent, supportive discipline (Deslandes & Bertrand, 2005). Children of authoritative parents learn appropriate social behavior, including emotional regulation, conflict resolution, and problem-solving skills (Baumrind, 1971). These skills are internalized and drawn upon during social interactions or when building relationships (Barber, 2000). Authoritative parents use directive strategies that allow children to learn how to manage their own behavior as adults and how to approach new situations rationally, utilizing their own abilities to solve problems (Baumrind, 1991).

In previous studies, children of authoritative parents obtained scores on social competence and self-perception measures indicating an adaptive approach to others and the self, likely a result of consistent and positive parenting (Lamborn et al., 1991; Bornstein, 2002). Authoritative parents have children who are described as being more self-reliant, curious, and
content with themselves (Baumrind, 1971). Additionally, supportive parenting is predictive of prosocial behavior and lower levels of aggression (Domitrovich & Bierman, 2001; Mize & Petit, 1997). Lamborn et al. (1991) found that children of authoritative parents scored lowest on measures of psychological and behavioral dysfunction when compared to children of authoritarian and permissive parents. Overall, the authoritative style is thought to promote psychological health through the application of supportive warmth and structured, rational discipline, which enhances the child's self-confidence and impressions of others, allowing him or her to effectively engage the world beyond the family of origin (Barber, 2000; Lamborn et al., 1991). Each parenting style relates to specific child psychological outcomes in a different way; however, in general, the authoritative parenting style appears to be beneficial, and the authoritarian and permissive styles appear detrimental.

Although a vast amount of literature explores the detrimental effects of certain parenting styles on psychosocial variables, parallel research considers the role of cultural variables in these relationships (Avenevoli, Sessa, & Steinberg, 1999; Steinberg, Darling, & Fletcher, 1995; Steinberg, Dornbusch, & Brown, 1992). It is important to distinguish between differences in the distribution and the correlates of parenting style in different subpopulations. Although in the United States authoritative parenting is most common among intact, middle-class families of European descent, the relation between authoritativeness and child outcomes is quite similar across groups (Porter et al., 2005). There are some exceptions to this general statement, however. Although authoritative parenting predicts good psychosocial outcomes and fewer problem behaviors for adolescents in the typical ethnic groups studied (i.e., African-, Asian-, European-, and Hispanic-Americans), it is associated with better academic performance only among European-Americans and, to a lesser extent, Hispanic-Americans (Steinberg et al., 1995; Steinberg et al., 1992). Chao (1994) and others (Darling & Steinberg, 1993) have argued that observed ethnic differences in the association of parenting style with child outcomes may be due to differences in social context, parenting practices, or the cultural meaning of specific
dimensions of parenting style. Additionally, some aspects of authoritarian parenting (e.g., high control) are related to positive outcomes in a low socio-economic environment (Steinberg, Lamborn, & Darling, Mounts, & Dornbusch, 1994). Researchers posit that the authoritarian style, because of its high degree of control, may provide a protective barrier between the child and a chaotic external environment (Evans, 2004). Because of these findings, socioeconomic status (SES) is an important variable to consider regarding the association between parenting style and any outcomes and was considered in analyses involving parenting styles in the present study.

Attributional Style

In addition to SES, other researchers have suggested that attributional style may impact the effect that parenting styles have on proceeding generations (Gamble & Roberts, 2005; Garber & Flynn, 2001; Kaslow, Rehm, Pollack, 1988; Kaslow, Rehm, & Siegel, 1984; Lamborn et al., 1991; Leitzel, 2001; Schwartz, Kaslow, Seeley, & Lewinsohn, 2000; Taylor & Ingram, 1999). It seems plausible that the parenting style of a parent relates to the development of a child’s attributional style.

According to Attributional Theory, when faced with a life event, each of us immediately “attributes” the cause of the event to something or someone. Individuals arrive at different attributions for the same event, depending on their attributional style. Attributional style refers to the person’s individual perception of what causes the event (Abramson, Seligman, & Teasdale, 1978). There are three dimensions of attributional style. The first dimension is locus: the event happened due to something about the individual (an internal attribution) or something about the situation/circumstances (an external attribution; Peterson et al., 1982). The second dimension is stability of the causal explanation: the event happened due to something that will be consistent or persist (a stable attribution) or something that is inconsistent or transient (an unstable attribution; Peterson et al., 1982). The third dimension is globality of the causal explanation: the event influences many aspects of life (global attribution) or influences only the currently experienced event/situation (specific attribution; Peterson et al., 1982). Further, attributional style can be
measured specifically for how people attribute causes in negative situations as compared to positive situations.

Depressogenic attributional styles can be found in children, adolescents, and adults (Alloy, Lipman, & Abramson, 1992; Nolen-Hoeksema, Seligman, & Girgus, 1986; Schwartz et al., 2000). A depressogenic attributional style is described as one in which individuals attribute negative events to internal, stable, and global causes and positive events to external, unstable, and specific causes (Kaslow et al., 1988; Nolen-Hoeksema, Seligman, & Girgus, 1986; Schwartz et al., 2000). Overall, depressogenic attributional styles are associated with more psychological distress and more impaired cognitive and interpersonal functioning (Schwartz et al., 2000). There is a significant interaction between attributional style and life events in the development of depression for children in the third, fourth and fifth grades (Nolen-Hoeksema et al., 1986). Children who display a pattern of attributing negative events to internal, stable, and global causes have higher levels of depression than children who attributed negative events to external, unstable, and specific causes (Nolen-Hoeksema et al., 1986). These findings were corroborated by another study that indicated that children who viewed negative events as being caused by internal, stable, and global causes and viewed positive events as controlled by external, unstable, and specific causes were more likely to show symptoms of depression, low self-esteem, and low achievement motivation (Bell-Dolan & Wessler, 1994). Among adolescents, depressogenic attributional styles relate to greater suicidal ideation and depressive symptoms and tend to remain stable over time (Schwartz et al., 2000). Among college students, those with a depressogenic attributional style were more likely to experience more severe and more numerous episodes of depression, with hopelessness as a main feature, than those who attributed the cause of negative events to be external, unstable, and specific (Alloy et al., 1992). In pediatric populations with chronic illnesses like diabetes (Kuttner, Delamater, & Santiago, 1990), sickle cell anemia, and leukemia (Schoenherr, Brown, & Baldwin, 1997), depressogenic attributional styles were more prevalent than positive attributional styles. Depressogenic attributional styles were also related to higher
levels internalizing and externalizing behavior problems in children with cancer, cystic fibrosis, juvenile rheumatoid disorders (Phipps & Steele, 2002), sickle cell disease (Thompson et al., 1994), diabetes (Cohen, Lumley, Naar-King, Partridge, & Caden, 2004; Holmes, Respess, & Greer, 1998), and asthma (Alati et al., 2005).

Attributional Styles across Generations

In addition to extensive literature documenting the relation between attributions and other variables in children, adolescents, and adults (e.g., Kaslow et al., 1988; Kaslow et al., 1984), other research has addressed how these variables are related across generations. Within the domain of academic achievement, one study on child academic performance indicated that parents’ attributions of their child’s performance were similar to the child’s attributions of their own academic performance (Dweck, 1975). Parents who attributed their child’s academic performance to effort had children who also attributed their performance to effort whereas parents who attributed their child’s performance to ability had children who attributed their performance to ability (Dweck, 1975). Three studies of attributional style across generations revealed that chronically depressed mothers with depressogenic attributional styles were more likely to have children with depressogenic attributional styles and lower perceived self-worth than children of mothers without a depressogenic attributional style (Garber & Flynn, 2001; Schwartz et al., 2000; Taylor & Ingram, 1999). The authors suggested that depressed mothers may transmit negative cognitive characteristics to their children (Taylor & Ingram, 1999). In fact, maternal attributional style mirrored child attributional style for related events (Garber & Flynn, 2001) providing support that attributional styles related across generations. These studies of the relation of attributional style across two generations serve as the context for the present study about the intergenerational transmission of attributional style across three generations.

Although not available in the attributional style literature, other psychological constructs have been evaluated across three generations. When analyzing the intergenerational transmission of attachment insecurity, research suggests that attachment insecurity of the grandparent was
significantly related to attachment insecurity of the grandchild, mediated by the attachment insecurity of the parent (Besser & Preel, 2005). Further, in a separate analysis, personality vulnerabilities to depression (i.e., self-criticism, efficacy, and dependency) in grandparents were related to the same personality vulnerabilities to depression in the grandchild, mediated by the parent’s personality vulnerabilities to depression. Given the established relation between attributional style and depression, attributional style characteristics may be related across three generations as well. By analyzing the relation across generations, the present study moves beyond relating attributional style from one generation to the next, examining the hypothesis that it will be self-perpetuated consistently across multiple generations.

Parenting Styles across Generations

Parenting styles are also linked across generations. A study of parenting style indicated that physical discipline and other beliefs and behaviors consistent with an authoritarian parenting style (i.e., harsh criticism, high maturity demands, and negativistic interactions) increased the likelihood that the child would later possess an authoritarian parenting style (Bower-Russa, 2005). Researchers measured disciplinary history, parenting attitudes, and disciplinary responses in for 459 college students. Results indicated that there was a significant relation between the participant’s disciplinary history and the participant’s disciplinary responses during an analogue parenting task, which was mediated by participant parenting attitudes. Specifically, participants of authoritarian parents were likely to endorse that they would respond with disciplinary behaviors similar to an authoritarian style (i.e., physical discipline and criticism), which was mediated by their also holding parenting attitudes consistent with an authoritarian style (i.e., physical discipline is acceptable).

Rodriguez (2004) studied 104 non-parent college students to investigate whether their history of discipline would predict their future parenting behavior as measured by an abuse potential questionnaire. The researcher measured their past discipline experiences, physical abuse potential, and attributions. These findings suggested that a negative parenting style was related to
an increased potential for mirroring negative or abusive parenting practices in subsequent
generations. Further, results indicated that those who blamed themselves for past discipline
experiences (indicative of an internal attribution) scored higher on measures of abuse potential,
even in the absence of an abuse history.

It is possible that attributional style may remain consistent across generations because of
the influence of the parent’s parenting style. According to Beck and Young (1985), “a child
learns to construct reality through his or her early experiences with the environment, especially
with significant others” (p. 207), and “sometimes, these early experiences lead children to accept
attitudes and beliefs that will later prove maladaptive” (p.207). Parenting may be a way of
providing information to a child about how life events should be approached, which then can
become internalized by the child during the development of the self-concept. Parenting
characteristics consistent with an authoritarian parenting style convey negative self-concept
information and as a result, may instil more depressogenic views, while parenting characteristics
consistent with an authoritative parenting style encourage the development of a positive view of
the self and the world (Bruce et al., 2006). The author of one study (Hjelle, 1996) insisted that to
protect against the transmission of the authoritarian parenting style to the next generation, the
child must undergo an attributional shift away from a depressogenic style further demonstrating
the importance of studying the relation between parenting style of the parent and the attributional
style of the child when analyzing across generations.

Research has also indicated that authoritarian parents have children who perceive
academic achievement with a depressogenic attributional style, resulting in reduced engagement
in classroom activities (Glaslow, Dornbusch, Troyer, Steinberg, & Ritter, 1997). Parents who
over-emphasized the importance of achievement (high maturity demands) or under-emphasized
the importance of achievement (low maturity demands), had children with a depressogenic
attributional style (Leitzel, 2001). Further, given that permissive-indulgent parents explain away
their child’s negative behavior (Lamborn et al., 1991), it seems reasonable to assume that these
children may resist accepting responsibility for negative events regardless of their level of involvement in the event's occurrence.

The relation between parenting characteristics and attributional style was supported in one study of families with no known history of abuse (Rodiguez, 2003). In this study, 42 parent-child dyads in New Zealand participated by completing child report measures of attributional style, depression, and anxiety and parent report measures of physical discipline and child abuse potential. Results indicated that anxiety was higher in children whose parents reported higher levels of harsh discipline practices and higher levels of abuse potential. Further, a depressogenic attributional style in children was related to higher levels of abuse potential of the parent. The findings suggest that depressogenic attributional styles relate to negative parenting practices, even in the absence of identifiable abuse.

Several studies have addressed the mechanism of relation between parenting styles and attributional styles of the next generation. Some researchers suggest that the relation between parenting styles and a child's attributional style is a result of the development of domain-specific self-competence in children (Cole & Bruce, 2005). In middle childhood, one area of development is the construction of competence beliefs (Harter, 1986). Children face instances that enhance a sense of competence and instances that invoke a sense of incompetence. For example, when a child is faced with a negative event, he/she may feel bad, which can be ameliorated by a general sense of competence or worsened by general sense of incompetence. Researchers (e.g., Harter, 1986) have suggested that pervasive negative feedback from parents and other attachment figures encourage the development of a sense of incompetence, which makes recovery from negative events more difficult.

Family and social values as well as expectancies may guide the development of a child's attributional style (Cole & Bruce, 2005). Specifically, low self-competence as a result of internalized parent evaluation may be the developmental precursor for a depressogenic attributional style. Cole and Bruce (2005) suggested a developmental model of the effect of
negative life events on depressive symptoms in children. They found that in young children ages 5-7 years, only negative life events, not parenting style or self-competence, directly affected depressive symptoms, which were typically short-lived. In middle childhood, ages 8-11 years, negative life events, parental evaluation of the child relative to the event, and the child’s self-competence related to the event (the precursor to the child’s attributional style as proposed by Cole & Bruce, 2005) affected depression. In later childhood, ages 11-13, negative life events along with a developed attributional style (i.e., an internalized parent evaluation and sense of competence) affect depressive symptoms. In other words, parenting styles affect the development of a child’s sense of competence, which develops into their attributional style in middle to late childhood.

One study (Bruce et al., 2006) examined parenting behaviors, family negative life events, child self-perceived competence, depressive cognitions, and child attributional style in 299 parent and child dyads to test the developmental model proposed by Cole and Bruce (2005). The study examined the difference between 2nd, 4th, and 6th graders. Using multiple regression analyses, only positive parenting characteristics consistent with an authoritative parenting style and negative life experiences related to self-competence in children. Further, lower levels of positive parenting and higher levels of negative life events were associated with higher levels of negative thoughts about self, others, and the world. Children with depressogenic attributional styles reported higher levels of negative parenting characteristics of their parents consistent with an authoritarian or neglectful parenting style, even after controlling negative life experiences (Bruce et al., 2006). Further, the authors suggested that the mechanism of development of attributional style is the internalization of negative parental feedback and incorporation of parenting views of the world.

Another study (Gamble & Roberts, 2005) investigated the relation between parenting styles and attributional styles as they relate to attachment style. These researchers suggested that a depressogenic attributional style develops from an insecure attachment style as a result of parenting characteristics consistent with permissive-neglectful parenting and authoritarian...
parenting. Researchers measured child attributional style, parenting styles, parent-expected perfectionism, attachment security, self-esteem, and dysfunctional attitudes in 134 high school students. Adolescents with parents who were rated as more critical and perfectionistic were more likely to possess a depressogenic attributional style, lower self-esteem, and higher levels of dysfunctional attitudes (Gamble & Roberts, 2005).

The relation between parenting styles and attributional style appears to remain consistent across various populations. One study of 248 Chinese adolescents measured child attributional style and parenting styles rated by the adolescent and found that adolescents with a depressogenic attributional style reported fewer experiences of parental concern and more experiences of rejection, physical punishment, and negative interactions with parents (Li & Qian, 2000). The authors suggested that early childhood experiences of harsh discipline contributed to the development of a depressogenic attributional style. In a study comparing children with phenylketonuria and controls, the effect of chronic illness on the generational transmission of attributional styles was assessed (Antshel, Brewster, & Waisbren, 2004). Although both the control children and chronically ill children showed similar attributional styles as their parents, chronically ill children and their parents had attributions that were more likely to be external and stable for negative events than those of control dyads.

Parenting Styles and Attributional Style Linked Across Generations

Although there is an established link between attributional style from one generation to the next and parenting style from one generation to the next, most studies have not considered these relations across multiple generations. Additionally, past research that involves the measurement across generations (e.g., Garber & Flynn, 2001; Lamborn et al., 1991; Leitzel, 2001; Schwartz et al., 2000; Taylor & Ingram, 1999) did not measure both constructs (i.e., attributional style and parenting style). One further consideration in measuring this relation is the measurement of attributional style. To date, parallel measures of attributional style that allow for subscale comparison and domain consistency do not exist for parent-child dyads that would support
improved attributional style comparison across generations. Past research studying attributional style across generations utilized independent measures with different formats and domain inclusions. Further, commonly used measures of attributional style lack internal consistency which may hinder analysis of relations among variables (see Anderson, Miller, Riger, Dill, & Sedikides, 1994; Sweeney, Anderson, & Bailey, 1986; Tennen & Herzberger, 1985).

The most widely used instrument measuring attributional style is the Attributional Style Questionnaire (ASQ; Peterson et al., 1982). The ASQ is designed to measure adult attributional styles. It contains 12 hypothetical events, half of which are positive (i.e., “you meet a friend who compliments you”) and half of which are negative (i.e., “you go out on a date and it goes badly”). Events are further divided into achievement (i.e., “you have been looking for a job unsuccessfully for some time”) and interpersonal (i.e., “a friend comes to you with a problem and you don’t try to help him/her”) contexts. Respondents are asked to write one possible cause of each event. Then, they are to respond to three questions based on the participants’ written cause for the event, one measuring internality (due to the person or due to the situation), one measuring stability (likely or unlikely to occur again), and one measuring globality (limited in its influence or widespread) using a 7-point scale. Scores are computed for each dimension for both the positive and negative events. Factor analyses have supported distinct attributional styles for both positive and negative events as measured by the ASQ (e.g., Xenikou, Furnham, & McCarrey, 1997). In terms of validity, depressogenic attributional style as measured by the ASQ significantly relates to depression (Abramson & Sackiem, 1977; Corr & Gray, 1996; Fresco, Alloy, & Reilly-Harrington, 2006; Sweeney et al., 1986), making the ASQ a valid predictor of depression.

Despite the evidence of predictive validity, there are several problems with the ASQ. First, the internal consistency of the individual dimensions (i.e., internal positive, internal negative, stable positive, stable negative, global positive and global negative) are moderate to low across multiple studies (Sweeney et al., 1986; Tennen & Herzberger, 1985). In an initial examination of the ASQ, Cronbach’s alpha coefficients for the three dimensions combined into
composites across positive and negative events were low to moderate (i.e., internality $\alpha = .44$, stability, $\alpha = .54$, and globality, $\alpha = .69$; Peterson et al. 1982). A more recent study indicated similar low Cronbach's alpha coefficients (i.e., .35 for internality, .52 for stability, and .61 for globality; Pritchard-Boone, 2004). Furthermore, in one meta-analytic review completed by averaging the ASQ intra-dimensional reliability estimates of 8 different studies, the reported mean internal consistency was .56 with range of .40 to .66 for individual dimensions (Sweeney et al., 1986). One common solution to improve the internal consistency is to combine the three dimensions into a single composite or into two composites (i.e., composite positive style and composite negative style). Internal consistency for composite positive index is reported as moderate across studies (e.g., $\alpha = .69$; Sweeney et al., 1986 and $\alpha = .75$; Tennen & Herzberger, 1985). Similarly, the internal consistency for the composite negative index is also moderate across studies (i.e., $\alpha = .72$ for both Sweeney et al., 1986 and Tennen & Herzberger, 1985).

Although internal consistencies increase when dimensions are combined into composites, the investigator’s ability to interpret individual attributional style components becomes compromised. Peterson and Villanova (1988) created the Expanded Attributional Style Questionnaire with twice as many items (24) as the original ASQ to attempt to improve internal consistency of the measure. However Cronbach’s alpha values still remained modest ($\alpha = .62$ for internality, $\alpha = .69$ for stability, and $\alpha = .80$ for globality); thus, the problem with internal consistency of the ASQ is not simply remedied by increasing the number of items.

The problem of low to moderate internal consistency coefficients when measuring general attributional style is not unique to the ASQ. In addition to the ASQ, the Attributional Style Assessment Test (ASAT; Anderson & Riger, 1991), the Content Analysis of Verbatim Explanations (CAVE; Peterson, 1992), and the Children's Attributional Style Questionnaire (CASQ; Seligman et al., 1984) were named as the most commonly used measures of attributional style measures in a review of studies of attributional style (Hessling, Anderson, & Russell, 2002). Each of these measures has internal consistencies that tend to be weak to moderate with respect to
their individual dimensions (i.e., $\alpha = .50-.72$; Hessling et al., 2002). Alternative measures to the ASQ utilize forced-choice response formats (e.g., Attributional Style Assessment Test, Anderson & Riger, 1991; Children's Attributional Style Questionnaire, Seligman et al., 1984) that disregard the degree to which the participant endorses the attribution (Hessling et al., 2002). Some measures (e.g., Academic Attributional Style Questionnaire; Peterson & Barett, 1987) focus on specific domains (i.e., academic, occupational, etc), which provide measurements of attributional style in specific domains but do not provide an estimate of overall attributional style (Hessling et al., 2002). Other measures of attributional style (e.g., Content Analysis of Verbatim Explanations; Peterson, 1992) utilize narrative analysis, which is subject to investigator/rater bias (Peterson, 1992). In fact, the ASQ yields higher internal consistency coefficients than the other attributional style measures, which is likely one reason it is the most widely used of all attributional style measures (Hessling et al., 2002).

Another potential problem with the ASQ is with the administration procedure. Specifically, the procedure may introduce preventable measurement error by instructing participants to generate their own cause for a presented event (i.e., “decide what you believe to be the one major cause of the event if it happened to you and write this cause in the space provided”). Participants are then asked to rate the internality, stability, and globality of the cause they generated rather than the event presented by the measure. For example, when presented with the event “you give an important talk in front of a group and the audience reacts negatively,” participants may generate a variety of responses but are forced to write down one cause. The cause created can be inconsistent with the standard questions that follow, potentially resulting in more confused responding (Pritchard-Boone, 2004). For example, for the participant-generated cause “I had on a bad shirt,” participants would then be asked if this cause was “due to you” or “due to situation,” “will always be present or will never again be present,” and “influences just this situation” or “influences all situations in my life.” A participant may respond with an internal (given that the choice of shirt was likely due to them), unstable (given that the choice of shirt will
likely be different in the future), and specific (given that the shirt is likely to effect only this situation) manner. However, the resulting ratings then become a measure of how the participant views the choice of an article of clothing rather than their more typical attributions about having a crowd react negatively when they give a talk. In rating the cause, the participant may have lost sight of the original event.

Furthermore, when being forced to create one cause for an event, participants may not write down the cause most representative of their style and are not permitted to rate their style in the face of multiple causes (e.g., I was not prepared for the talk, others were in a bad mood, etc.), perhaps hindering the measurement of overall attributional style. One suggestion may be to eliminate the free response portion of the ASQ and simply ask participants to consider causes of the event and rate whether these causes are internal, stable, or global (e.g., Clark, Green, & Pritchard-Boone, 2006). Results from a prior study (Clark et al., 2006) indicated that removing the free-response portion of the measure indeed improved the reliability of all six subscales of the ASQ when compared to the unaltered version of the ASQ. The overall internal consistency of the original ASQ was .77 as compared to the modified version of the ASQ (i.e., .82; Clark et al., 2006).

Attributional Style Measure (ASM)

A goal in creating the Attributional Style Measure (ASM) was to reduce potential measurement error in an attributional style measurement by having participants imagine themselves in the situation without requiring that they decide upon one specific cause of the situation. Follow-up questions on internality and stability can then be related to several causes, allowing the respondent to attribute across potentially several relevant sources of influence. Furthermore, the ASM does not ask participants to rate the globality of the cause of the event. Past factor analysis research suggests that stability and globality are highly correlated, to such a degree as to suggest that they are the same factor (Arntz, Gerlsma, Albersnagel, 1985; Furnham, Sadka, & Brewin, 1992). Theoretically, differences between whether something will "always be
present" and whether it “influences other situations” may be difficult for participants to discern (Corr & Gray, 1996). Thus, the ASM collapses the concept of globality across all items and does not seek to produce an independent globality score. Rather, the internal/external and stable/unstable subscale means and standard deviations are “generalized” or “global” indicators of that style across situations.

Through colleague collaboration, the original ASM was created by first listing a comprehensive overview of common life situations across multiple domains (e.g., interpersonal, occupational, illness, injury, performance, achievement, etc.). Situations or events were created based on these domains to develop a general attributional style measure rather than one specific to a particular domain (e.g., Academic Attributional Style Questionnaire; Peterson & Barett, 1987). The instructions, “Imagine yourself in each of the following situations and answer each question about that situation.” were developed to prevent the respondent from focusing on one specific cause for the situation, as would be the case with the ASQ. The original version of the ASM included 30 items (15 positive and 15 negative situations). Participants were asked to rate the internality of the event on a scale from 1 to 7 with 1 being “because of me” and 7 being because of the situation. Participants were asked to rate stability of the event on a scale of 1 to 7 with 1 being “almost always happens” and 7 being “almost never happens.” A pilot study was conducted with undergraduate participants ($N = 247$) who were administered the ASM and the ASQ, along with other measures as a part of a larger study. Internal consistencies were computed for each dimension, and item analysis was conducted to identify items that were reducing the internal consistency of the measure. Overall ASQ internal consistency was .74 as compared to overall ASM scale internal consistency of .77. For the ASQ, Cronbach’s alpha estimates are weak to moderate for internal negative (.52), internal positive (.68), stable negative (.65), and stable positive (.71), while ASM Cronbach’s alpha estimates are moderate for internal negative (.79), internal positive (.75), stable negative (.81), and stable positive (.76).
Item analysis of the ASM revealed that the recomputed internal consistency of each subscale (i.e., $\alpha = .80$ for internal negative, $.76$ for internal positive, $.82$ for stable negative, and $.76$ for stable positive) was improved or maintained with the removal of four items. Upon review, the items were judged to be poorly constructed and may have created confusion for participants. These four items were edited for clarity. The researchers chose to edit rather than remove these items given that they represented domains considered important to the goal of creating a comprehensive measure of attributional style across multiple domains. One purpose of the present study is to assess the internal consistency of the ASM including these four revised items. Further, two additional items were added as well to address a previously neglected domain (i.e., overall actions, “I did something good”). The modified version of the ASM described above was utilized in the present study to gain additional psychometric data as to its value amongst the other attributional style measures, particularly the ASQ.

In addition, a parallel child version of the ASM, the ASM-C, was used in this study. The ASM-C was constructed in the same way as the ASM and was introduced in the present study to compile pilot data on the measure and determine its relation to other study variables. The most commonly used attributional style measure in children is the Children’s Attributional Style Measure-Revised CASQ-R (Kaslow & Nolen-Hoeksema, 1991). The CASQ-R, like the other attributional style measures discussed above, is plagued by weak to moderate internal consistency (Thompson, Kaslow, Weiss, & Nolen-Hoeksema, 1998). The CASQ-R is a 24-item forced choice measure of children's attributional style. Children are asked to imagine that an event has occurred and to choose between two possible reasons the event happened to them. The questionnaire consists of 12 positive and 12 negative events, each followed by two possible causes for the event. The choices for each item (e.g., “you make a new friend”) vary on one dimension (internality, stability, or globality) of attributional style (e.g., internality: “I am a nice person” or “The people that I meet are nice”). Previous evidence on the reliability has found weak to moderate internal consistency ($\alpha = .42$ to $.73$) and test-retest reliability ($r = .66-.71$; Gladstone & Kaslow, 1995;
Panak & Garber, 1992). There were three goals leading to development of the ASM-C. One goal was to create a dimensional measure of attributional style in children rather than a forced-choice measure. The second goal was to develop a measure with adequate internal consistency. Thirdly, the ASM-C provided a parallel form for the ASM used in the study. Overall, in addition to analyzing the generational transmission of attributional style and parenting style, an additional goal of the present study was to create a new attributional style measure, with both a child and an adult version, allowing for a parallel comparison. It is hoped that introduction of parallel forms will enhance the measurement of the attributional similarities and differences amongst parent-child dyads, allowing for improved analysis of these styles across generations and with variables of interest.

Hypotheses

Attributional Style across Generations

It was expected that grandparents’ scores on composite positive and composite negative scales would be significantly correlated with parents’ scores on the same composite attributional styles, which in turn would be significantly correlated with the same composite attributional styles of the child. For example, higher scores composite positive attributional style scores for parents would predict higher scores on composite positive attributions for the child. The same relation was also expected with a composite negative attributional style across generations (i.e., grandparent to parent, parent to child). Further, it was hypothesized that grandparents’ attributional style scores would predict attributional style scores on the same composite in grandchildren, mediated by parents’ attributional style composite.

Parenting Style across Generations

It was expected that parenting styles would be related across two generations, such that grandparents’ scores on each parenting style dimension would be significantly correlated with parents’ scores on the same dimensions of parenting style characteristics. For example, higher scores on the subscale measuring authoritarianism for grandparents would predict higher scores
on the same subscale for the parent. The same relation was also expected with authoritativeness and permissiveness.

**Attributional Styles and Parenting Styles within Generations**

It was expected that attributional style characteristics would predict parenting characteristics within generations given that attributional styles develop in childhood. Specifically, composite negative attributional style would predict relatively higher authoritarian and permissive parenting characteristics, and composite positive attributional style characteristics would predict authoritativeness.

**Attributional Styles and Parenting Styles across Generations**

It was expected that attributional style and parenting style would be related across two generations such that the parenting style characteristics of one generation would relate to the attributional style of the next generation, mediated by parenting style. Further, the attributional style of one generation would predict the attributional style of the next generation mediated by parenting style. In other words, grandparent composite negative attributions would predict composite negative attributions in parents mediated by negative parenting style characteristics of grandparents (i.e., level of permissiveness and authoritarianism). Composite positive attributional characteristics in grandparents would predict composite positive attributional style characteristics in parents mediated by grandparent positive parenting style characteristics (i.e., level of authoritativeness). These predictive relationships were expected for the parent-child cross-generational comparison as well.
**Figure 1.** Hypothesized relationship between negative attributional style and authoritarianism

**Figure 2.** Hypothesized relationship between negative attributional style and permissiveness
Further, the relation between attributional style and parenting style was anticipated across three generations. It was hypothesized that composite attributional style characteristics of the grandparent would predict similar composite attributional style characteristics of the child, which would be mediated by parenting style characteristics of the child’s parent. Composite negative attributional style characteristics of the grandparent would predict a composite negative attributional style in their grandchild, which would be mediated by negative parenting style characteristics (i.e., authoritarianism or permissiveness) of the child’s parent. The same model is anticipated for the relation of the grandparent composite positive attributions to child composite positive attributions.

Figure 3. Hypothesized relationship between positive attributional style and authoritativeness

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Figure 4. Hypothesized relation between negative attribution style and authoritarianism across generations

Figure 5. Hypothesized relation between negative attribution style and permissiveness across generations
Figure 6. Hypothesized relation between positive attribution style and authoritativeness across generations

Psychometrics of New Attributional Style Measure

It was predicted that the internal consistency of the ASM and ASM-C would be similar to or greater than the internal consistency of the ASQ and CASQ-R, respectively. It was also predicted that the ASM and ASM-C would demonstrate criterion validity in that scores on this measure would be significantly correlated with scores on the ASQ and CASQ-R, respectively. Further, construct validity was predicted in that internal negative, stable negative, and global negative responses of the ASM would positively correlate with scores of depression in parents and grandparents, whereas the same dimensions on the ASM-C would be related to internalizing (i.e., depression) and externalizing problems in children.
CHAPTER II

METHODS

Participants

Participants \((N = 330)\) were comprised of 110 triads (grandparent, parent, and child) and were recruited from local schools and an inpatient pediatric unit. Letters requesting participation were distributed to classrooms \((4^{th}-10^{th} \text{ grade})\) and were distributed to parents upon admission to the inpatient general pediatric unit. Parents who agreed to participate then facilitated the participation of the grandparent and the child and returned the packets to the school or to their nurse in the inpatient unit. Each member of the triad consented/assented to participate.

Requirements to participate included having three-generation participation and having child participants aged 8 years-16 years.

The 110 grandparent participants had a mean age of 65.85 \((SD = 8.28)\), with 28 grandfathers and 82 grandmothers participating. The 110 parent participants had a mean age of 41.3 \((SD = 7.81)\) and a gender distribution of 12 fathers and 98 mothers. Of the 110 parents, 31 were parents of chronically ill children. The total sample of 110 child participants had a mean age of 12.65 \((SD = 2.60)\). The chronically ill sub-sample has a mean age of 12.39 \((2.76)\) and the non-clinically ill children has a mean age of 12.88 \((2.45)\). Average grade level of the child participants was 7th grade for the total sample and both chronically ill and non-chronically ill sub-samples.

The gender distribution was 52 (47%) males and 58 (53%) females for the total sample, 46% male and 54% female for the chronically ill sub-sample and 47% male and 53% female for the non-chronically ill sample. Of the 110 child participants, 31 (12 with asthma, 11 with sickle cell disease, 4 with diabetes, 2 with cystic fibrosis, 2 with other chronic illnesses) reported having a chronic illness, while 79 did not report having a chronic illness.

The ethnic distribution of the triads was 80 (73%) White/Caucasian, 25 (23%) African-American, 2 Hispanic, 2 Asian, and 1 Native American (4% other). The chronically ill sample and not chronically ill sample did not differ substantially in ethnic distribution (for chronically ill,
62% White/Caucasian, 35% African American, and 3% other; for non chronically ill, 76% White/Caucasian, 20% African American, and 4% other. The two factor index of social status by Hollingshead (1975) ranging from 8 to 66, was $M = 42.87$ ($SD = 13.71$) for the total parent sample, $M = 41.92$ ($SD = 14.52$) for children with chronic illness, and $M = 43.71$ ($SD = 12.04$) for parents of children without chronic illness. These means the SES index fall within the fourth category on the social strata consistent with employees working in "medium businesses" as "minor professionals" (Hollingshead, 1975). The mean household income of the parent sample falls between $51,000 and $70,000. Mean parent educational level was that of someone with a technical or associates degree and mean spouse education was that of someone with some college (no degree). Further, most parent participants were married ($n = 94$ married, $n = 9$ divorced, $n = 5$ single, $n = 1$ separated, and $n = 1$ widowed).

Materials

Attributional Style Questionnaire

The Attributional Style Questionnaire (ASQ; Peterson et. al, 1982) consists of 12 hypothetical situations, 6 positive (e.g., "you do a project and you are highly praised") and 6 negative (e.g., "you meet a friend who acts hostilely towards you"). Four questions follow each scenario. One question asks for the cause of the scenario, which is not scored but is used by the participant to answer the three remaining questions. The remaining three Likert-scale questions measure the degree to which the participant's reported cause of the scenario is internal or external, stable or unstable, and global or specific. Participants mark an answer ranging from 1 to 7 with 1 as the anchor for external, unstable, and specific, and 7 anchoring internal, stable, and global. Evidence of reliability is satisfactory for overall internal consistency ($alphas = .66$ to .88; Peterson et al., 1982; Sweeney et al., 1986) and low to moderate for individual dimensions ($alphas = .40$ to .66;
Sweeney et al., 1986; Tennen & Herzberger, 1985). Evidence of validity is significant correlation with open-ended attributions of events and prediction of depression in adults (Peterson et al., 1982). See the Results section for internal consistency estimates and validity evidence derived from the present study. See Table 1 for means and standard deviations.

**TABLE 1. Means & Standard Deviations of Attributional Style Measured by ASQ and CASQ-R**

<table>
<thead>
<tr>
<th>Measure</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Child Attributional Style (CASQ-R)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Internal Positive</td>
<td>2.79</td>
<td>(.98)</td>
</tr>
<tr>
<td>Stable Positive</td>
<td>2.89</td>
<td>(1.11)</td>
</tr>
<tr>
<td>Global Positive</td>
<td>2.43</td>
<td>(.96)</td>
</tr>
<tr>
<td>Internal Negative</td>
<td>1.31</td>
<td>(1.09)</td>
</tr>
<tr>
<td>Stable Negative</td>
<td>1.19</td>
<td>(1.06)</td>
</tr>
<tr>
<td>Global Negative</td>
<td>.87</td>
<td>(1.01)</td>
</tr>
<tr>
<td><strong>Parent Attributional Style (ASQ)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Internal Positive</td>
<td>4.70</td>
<td>(1.00)</td>
</tr>
<tr>
<td>Stable Positive</td>
<td>4.83</td>
<td>(.87)</td>
</tr>
<tr>
<td>Global Positive</td>
<td>4.81</td>
<td>(.92)</td>
</tr>
<tr>
<td>Internal Negative</td>
<td>3.90</td>
<td>(.98)</td>
</tr>
<tr>
<td>Stable Negative</td>
<td>4.02</td>
<td>(.77)</td>
</tr>
<tr>
<td>Global Negative</td>
<td>3.84</td>
<td>(1.02)</td>
</tr>
<tr>
<td><strong>Grandparent Attributional Style (ASQ)</strong></td>
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</tr>
<tr>
<td>Internal Positive</td>
<td>4.53</td>
<td>(.96)</td>
</tr>
<tr>
<td>Stable Positive</td>
<td>4.72</td>
<td>(.92)</td>
</tr>
<tr>
<td>Global Positive</td>
<td>4.78</td>
<td>(1.05)</td>
</tr>
<tr>
<td>Internal Negative</td>
<td>3.81</td>
<td>(.91)</td>
</tr>
<tr>
<td>Stable Negative</td>
<td>4.12</td>
<td>(.88)</td>
</tr>
<tr>
<td>Global Negative</td>
<td>4.07</td>
<td>(1.00)</td>
</tr>
</tbody>
</table>

**Attributional Style Measure-Adult version (ASM)**

This measure consists of 32 items. Participants are asked to imagine themselves in a given scenario (16 positive and 16 negative) and to answer questions (ranging from 1 to 7) about the internality and stability of the cause of the scenario. For example, "I performed poorly on a job task" is a negative scenario. The internality question is anchored on the ends with "was
because of me” and “was because of the circumstances” and anchored in the middle with “equally me and circumstances.” The stability question is anchored on the ends with “almost always happens” and “almost never happens” and anchored in the middle with “happens about half of the time.” Scores for each subscale (internal positive, internal negative, stable positive, and stable negative) range from 16 to 112 with higher score indicates more externality and instability of attribution. See the results section for internal consistency estimates and validity evidence derived from the present study. See Table 2 for means and standard deviations of the ASM.

TABLE 2. Means and Standard Deviations of Attributional Style Measured by ASM and ASM-C

<table>
<thead>
<tr>
<th>Measure</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Child Attributional Style (ASM-C)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Internal Positive</td>
<td>51.15</td>
<td>(14.18)</td>
</tr>
<tr>
<td>Stable Positive</td>
<td>47.74</td>
<td>(12.45)</td>
</tr>
<tr>
<td>Internal Negative</td>
<td>64.05</td>
<td>(17.56)</td>
</tr>
<tr>
<td>Stable Negative</td>
<td>88.60</td>
<td>(15.77)</td>
</tr>
<tr>
<td>Parent Attributional Style (ASM)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Internal Positive</td>
<td>56.35</td>
<td>(11.38)</td>
</tr>
<tr>
<td>Stable Positive</td>
<td>67.20</td>
<td>(13.13)</td>
</tr>
<tr>
<td>Internal Negative</td>
<td>51.06</td>
<td>(12.47)</td>
</tr>
<tr>
<td>Stable Negative</td>
<td>85.39</td>
<td>(15.51)</td>
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<td>Grandparent Attributional Style (ASM)</td>
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<tr>
<td>Internal Positive</td>
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<td>(11.77)</td>
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<tr>
<td>Stable Positive</td>
<td>68.77</td>
<td>(13.95)</td>
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<tr>
<td>Internal Negative</td>
<td>53.50</td>
<td>(13.46)</td>
</tr>
<tr>
<td>Stable Negative</td>
<td>79.34</td>
<td>(19.24)</td>
</tr>
</tbody>
</table>

Attributional Style Measure-Child Version

The Attributional Style Measure-Child Version (ASM-C) is the parallel child version to the ASM used in the present study. Participants are asked to imagine themselves in a given scenario (17 positive and 17 negative) and to answer questions (ranging from 1 to 7) about the internality and stability of the cause of the scenario. For example, “I performed poorly on a school task” is a negative scenario. The internality question is anchored on the ends with “was
because of me” and “was because of the circumstances” and anchored in the middle with “equally me and circumstances.” The stability question is anchored on the ends with “almost always happens” and “almost never happens” and anchored in the middle with “happens about half of the time.” Scores for each subscale (internal positive, internal negative, stable positive, and stable negative) range from 17 to 119 with higher score indicates more externality and instability of attribution. See the results section for internal consistency estimates and validity evidence derived from the present study. See Table 2 for means and standard deviations of the ASM-C.

*Children’s Attributional Style Questionnaire-Revised*

The Children’s Attributional Style Questionnaire-Revised (CASQ-R; Kaslow & Nolen-Hoeksema, 1991) is a 24-item forced choice measure of children’s attributional style. Children are asked to imagine that an event has occurred and to choose between the two reasons why the event happened to them. The questionnaire consists of 12 positive and 12 negative events, each followed by two possible causes for the event. The choices vary on one dimension of attributional style. For example, “You have a messy room” is a negative event in which children are asked to respond to their level of stability in attribution by responding either, “I did not clean my room that day” or “I usually do not clean my room.” The CASQ-R includes 4 positive and 4 negative events for each of the three dimensions (Thompson et al., 1998). See Table 1 for means and standard deviations in the present study. The CASQ-R has shown weak to moderate internal consistency (alpha = .42 to .73) and adequate test-retest reliability (r = .66-.71; Gladstone & Kaslow, 1995; Thompson et al., 1998). Internal consistency was moderate (alpha = .76) in the present study. The CASQ-R has been shown to predict later depression in children and adolescents (Gladstone & Kaslow, 1995).

*Parenting Styles and Dimensions Questionnaire*

The Parenting Styles and Dimensions Questionnaire (PSDQ; Robinson, Mandelco, Olsen & Hart, 1995) is a 64-item instrument measuring the parenting style characteristics of the participant and his/her spouse. Items are rated on a 5-point scale, from 1 = Never to 5 = Always.
For example, one item is, "I use threats as punishment with little or no justification" and an endorsement of 5 indicates that the respondent always uses this practice. The measure yields a separate, continuous score for each dimension of parenting with larger numbers indicating more endorsement of parenting practices associated with a particular style. The scale is composed of 20 items for authoritarianism, 27 for authoritativeness, and 17 for permissiveness. The authoritarian and authoritative styles are further divided into sub-dimensions. The authoritarian style is comprised of 3 sub-dimensions: physical coercion, verbal hostility, and non-reasoning/punitive. The authoritative style is comprised of 3 sub-dimensions: responsiveness/warmth, regulation/reasoning, and autonomy/democratic. The permissive style only represents permissive-indulgent parenting characteristics. See Table 3 for means and standard deviations for this measure.

**TABLE 3. Means & Standard Deviations of Parenting Style Characteristics Measured by PSDQ**

<table>
<thead>
<tr>
<th>Measure</th>
<th>Mean</th>
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<td>Grandparents</td>
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<tr>
<td>Authoritativeness</td>
<td>3.57</td>
<td>(.73)</td>
</tr>
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<td>Authoritarianism</td>
<td>2.23</td>
<td>(.59)</td>
</tr>
<tr>
<td>Permissive</td>
<td>2.42</td>
<td>(.66)</td>
</tr>
<tr>
<td>Parents</td>
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<td></td>
</tr>
<tr>
<td>Authoritativeness</td>
<td>3.93</td>
<td>(.62)</td>
</tr>
<tr>
<td>Authoritarianism</td>
<td>2.08</td>
<td>(.44)</td>
</tr>
<tr>
<td>Permissive</td>
<td>2.36</td>
<td>(.65)</td>
</tr>
</tbody>
</table>

The PSDQ measure has been found to have moderate to good internal consistency for authoritative (\(\alpha = .91\)), authoritarian (\(\alpha = .86\)), and permissive (\(\alpha = .75\)) parenting (Robinson et al. 1995), which was consistent with internal consistency estimates in the present sample (\(\alpha = .91\) for authoritative, \(\alpha = .84\) authoritarian, and \(\alpha = .76\) for permissive).
**Depression Anxiety Stress Scales**

The Depression Anxiety Stress Scales (DASS; Lovibond & Lovibond, 1995) consists of 42 items that measure 3 factors: Depression, Anxiety, and Stress in adults. Respondents rate items based on the past week. Although there is some collinearity of anxiety and stress, confirmatory factor analysis confirms that they are separate factors (Brown, Korotitsch, Chorpita, & Barlow, 1997). Items are rated on a Likert scale, from 0 = Did not apply to me at all to 3 = Applied to me very much, or most of the time. Scores can range from 0 to 42 for each subscale with the higher scores indicating more distress. The present sample yielded depression scores ranging from 0 to 42, with a grandparent\( M = 5.87, SD = 5.70 \) and parent\( M = 4.75, SD = 6.54 \), indicating a general low level of depressive symptoms. Scores ranged from 0 to 42 for anxiety (grandparent\( M = 5.80, SD = 5.75 \) and parent\( M = 3.85, SD = 5.80 \)) and 0 to 36 for stress (grandparent\( M = 7.81, SD = 6.43 \) and parent\( M = 9.03, SD = 7.41 \)) indicating low levels of both constructs. Evidence of reliability is adequate with test-retest correlations of .71 for depression, .79 for anxiety and .81 for stress (Brown et al., 1997). The reliability estimates of the present study yielded strong Cronbach’s alpha values (\( \alpha = .91 \) for depression, \( \alpha = .92 \) for stress, and \( \alpha = .90 \) for anxiety). Evidence of validity is moderate correlations with the Beck Anxiety Inventory, .81 and the Beck Depression Inventory, .74 (Brown et al., 1997).

**Pediatric Symptom Checklist**

The Pediatric Symptom Checklist (PSC; Jellinek, Little, Murphy, Pagano, 1995) is a 35-item measure designed to screen for emotional and behavioral problems in children and adolescents with three scales: externalizing behavior problems, internalizing behavior problems, and attention. Parents rate how often their child exhibits a list of behaviors on a 3-point scale, 0 = never, 1 = sometimes, and 2 = often. There are 15 items that measure internalizing problems, 10 that measure externalizing problems, and 10 that measure attention problems. The subscale scores are the average response across items, thus composite scores can range from 0 to 2 for each subscale with the higher scores indicating more behavioral problems in that domain. Participants

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in the present study indicated low internalizing problems ($M = .50, SD = .34$), externalizing problems ($M = .40, SD = .29$), and attention problems ($M = .51, SD = .36$). Evidence of reliability is good internal consistency ($\alpha = .89$; Greening, Stoppelbein, & Jordan, 2004). The PSC has been found to correlate moderately with the Child Behavior Checklist (CBCL; Achenbach, 1991), another measure of childhood behavior problems (Murphy, Jellinek, & Milinsky, 1989).

**Two Factor Index of Socio-Economic Status**

The Hollingshead index (Hollingshead, 1975) calculates socio-economic status (SES) by comprising two factors: education and occupation. Both of these factors were collected as part of a demographic questionnaire. Occupation and educational level combine to provide a score of social status (ranging from 8 to 66) according to the Hollingshead Index. The score is placed into one of five potential index categories, with higher scores indicating higher socioeconomic status. For example, Index one (8-19) is usually comprised of individuals with the socioeconomic status of unskilled laborers, Index two (20-29) is relative to semiskilled workers, Index three (30-39) is consistent with skilled craftsmen, clerical workers, or sale professionals, Index four (40-54) relates to minor professionals or medium-sized business workers, while the highest strata, Index five (55-66) is consistent with those in major business or professional fields. The two factor index of social status by Hollingshead (1975) for the parent sample was $M = 42.87, SD = 13.71$. This mean SES index falls within the fourth category on the social strata consistent with employees working in "medium businesses" as "minor professionals" (Hollingshead, 1975). Evidence of validity is high correlations with census data ($r = .92$; National Data Program for the Social Sciences, 1974).

**Procedure**

A description of the study was provided on a request-for-participation form and was sent home with school-aged children. The researcher sent home the questionnaire packets to interested parents, who were the primary caregivers of the child. For the inpatient pediatric unit, the
admitting nurse provided the request-for-participation form to parents of age-appropriate children upon admission. Interested parents were given the packet of questionnaires, which were completed during their child’s hospital stay. Parents were reminded that their consent or lack of consent to participate would not affect their medical care and that their responses would not be shared with medical personnel. Within the packet, parents were asked to complete a consent form, the proposed attributional style measure, the ASQ, PSDQ, DASS, PSC, and demographic information about himself/herself and his/her child. The child was asked to complete an assent form, the CASQ-R, and the proposed attributional style measure. The grandparents were asked to complete a consent form, the proposed attributional style measure, the ASQ, PSDQ, DASS, and demographic information. Questionnaires had a unique participant number to maintain confidentiality. Parents returned the packets to the child’s teacher, and the researcher retrieved them from the school and hospital unit. Contact information was collected from interested parents so that the researcher could facilitate the return of the packets. Each child participant received a coloring book and stickers for his/her participation. Detailed instructions and a written debriefing regarding the general purpose the study were included in the packet for each participant.
CHAPTER III

RESULTS

Attributional Styles across Generations

Grandparent to Parent

A bivariate correlational analysis was performed to determine if the attributional style of the preceding generation significantly related to the same style in the following generation. Parent and grandparent composite negative attributional style was significantly correlated, $r = .52, p < .01$, as was composite positive attributional style, $r = .29, p < .05$). See Table 4 for individual subscale relationships.

TABLE 4. Correlations of Attributional Style of grandparent's ASQ and parent's ASQ Scores

<table>
<thead>
<tr>
<th>IP-G</th>
<th>SP-G</th>
<th>GP-G</th>
<th>IN-G</th>
<th>SN-G</th>
<th>GN-G</th>
<th>IP-P</th>
<th>SP-P</th>
<th>GP-P</th>
<th>IN-P</th>
<th>SN-P</th>
<th>GN-P</th>
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<td>.48**</td>
<td>.47**</td>
</tr>
</tbody>
</table>

*p < .05, **p < .01

IP = Internal Positive, SP = Stable Positive, GP = Global Positive, IN = Internal Negative, SN = Stable Negative, GN = Global Negative, GI = Grandparent, IP = Parent

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Contrary to expectations, using bivariate correlational analysis, parent and child composite negative attributional style were not significantly correlated, $r = -.06, p > .05$. However, composite positive attributional style was significantly related, $r = .32, p < .01$). Moderational regression analyses was performed to determine if the relation between parent composite attributions and child composite attributions change as a function of the child's age. There was a main effect for age, $\beta = -.19, F(108) = 2.02, p < .05$, but not parent composite negative attributions, $\beta = -.02, F(108) = -.16, p > .05$, when predicting child composite negative attributions. The interaction between parent composite negative attributions and age did not explain a significant portion of the variance, $\beta = -.16, F(108) = 1.65, p > .05$, in child composite negative attributions above that explained by age. For composite positive attributions, there was a main effect for parent composite positive attributions, $\beta = .30, F(108) = 3.09, p < .05$, but not age of the child, $\beta = .08, F(108) = .76, p > .05$, when predicting child composite positive attributions. Further the interaction between parent composite positive attributions and age did not explain a significant portion, $\beta = -.09, F(108) = .99, p > .05$, of the variance in child composite positive attributions above that explained by age. See Table 5 for individual subscale relationships.
TABLE 5. Correlations of Attributional Style of the CASQ-R and parent ASQ Scores

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<tr>
<th></th>
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<th>GP-C</th>
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<th>SP-P</th>
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</tr>
</tbody>
</table>

*p<.05, **p<.01

IP = Internal Positive, SP = Stable Positive, GP = Global Positive, IN = Internal Negative, SN = Stable Negative, GN = Global Negative, -C = child, -P = parent

Mediation Analyses across Generations

To determine if parent attributional style mediated the relation between grandparent attributional style and child attributional style, a series of regressions were performed. Following the method outlined by Baron and Kenny (1986), mediation is established when the following conditions are met: (1) a significant relation is found between the predictor variable (grandparent attributional style) and the criterion variable (child attributional style); (2) a significant relation is found between the predictor variable (grandparent attributional style) and the mediator variable (parent attributional style); and (3) a significant association between the predictor variable and the mediator variable.
(grandparent attributional style) and the criterion variable (child attributional style) is significantly reduced after statistically controlling for the presumed mediator (parent attributional style).

Analyses of grandparent composite negative attributional characteristics was not performed because, contrary to hypothesis, it was not significantly related to the same attributional style in children, thus violating Condition 1. As anticipated, the conditions of mediation were met for composite positive attributional style characteristics: grandparent composite positive attributional style was a significant predictor of child composite positive, $\beta = .19, F(108) = 2.02, p < .05$, attributional style characteristics (Condition 1) and of parent composite positive, $\beta = .29, F(108) = 3.11, p < .05$, attributional style characteristics (Condition 2). The standardized regression coefficient between grandparent composite positive attributional style and child composite positive attributional style decreased, $\Delta R^2 = .10, p < .01$, when controlling for parent composite positive attributional style, such that the relation is no longer significant, from $\beta = .19, p < .05$, to, $\beta = .11, p > .05$, (Condition 3).

![Diagram](image)

**Figure 7.** Standardized regression coefficients for mediation of attributional style. The regression coefficient between grandparent composite positive attributional style and child composite positive attributional style while controlling for parent composite positive attributional style is in parentheses. * $p < .05$, ** $p < .01$
An additional test of mediation, the Sobel Test (Sobel, 1982, cited in Baron & Kenny, 1986) was conducted. The results of the Sobel Test further substantiated the significant mediational effect, \( z > 1.96, p < .05 \), of parent composite positive attributional style characteristics on the relation between grandparent composite positive attributional style characteristics and child composite positive attributional style characteristics.

Parenting Style Characteristics across Generations

Three regression analyses were performed to determine if the parenting style of one generation (parents) would be predicted by the parenting style of the preceding generation (grandparents). Because SES was significantly related to grandparent, \( r = -.34, p < .01 \), and parent \( r = -.37, p < .01 \), permissive parenting characteristics as well as grandparent \( r = -.25, p < .01 \) and parent \( r = -.26, p < .01 \), authoritarian parenting characteristics, SES was included as a control variable in these analyses. Each grandparent parenting style characteristic was entered as the predictor of the same parenting style characteristics in the following generation of parents. As hypothesized, grandparent authoritativeness, \( \beta = .40, t (108) = 4.52, p < .01 \), authoritarianism, \( \beta = .73, t (108) = 11.02, p < .01 \), and permissiveness, \( \beta = .56, t (108) = 6.70, p < .01 \), significantly predicted the same parenting style characteristics in the following generations of parents. There was also a significant main effect for SES in the prediction of permissiveness parenting style characteristics in parents, \( \beta = -.19, t (108) = -2.41, p < .05 \), but not for other parenting style characteristics. See Table 6 for correlation coefficients between grandparent and parent PSDQ scores.
**TABLE 6. Correlations between Parenting Style Subcales of the Parent and Grandparent PSDQ**

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<th>Authn-G</th>
<th>Authve-G</th>
<th>Perm-P</th>
<th>Authn-P</th>
<th>Authve-P</th>
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<td>.74**</td>
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<tr>
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<td>-.26**</td>
<td>.42**</td>
<td>-.06</td>
<td>-.89**</td>
</tr>
</tbody>
</table>

*p < .05, **p < .01

Perm = Permissive, Authn = Authoritarian, Authve = Authoritative, -G = grandparent, -P = parent

Attributional Style and Parenting Style within Generations

**Grandparents**

Three multiple regression analyses were performed within each generation, with composite attributional style characteristics from the ASQ entered as the predictors of each parenting style. Grandparent composite positive attributional style characteristics predicted authoritativeness, β = .45, p < .01 and composite negative predicted authoritarianism, β = .19, p < .05, but no other parenting characteristics were predicted by the composite scores of grandparent attributional style.

**Parents**

Three multiple regression analyses were performed with attributional style characteristics entered as the predictors of each parenting style. Parent composite negative attributions predicted permissiveness, β = .24, p < .01, but no other parenting styles. Parent composite positive attributions did not predict any of the parenting styles.
Attributional Style and Parenting Styles across Generations

Two Generations: Parenting predicts Attributions

Two multiple regressions were performed to determine if parenting style characteristics of one generation predicted the attributional style of the following generation. Neither composite negative attributional style nor composite positive attributional style in parents were predicted by any parenting style characteristics in grandparents. Two multiple regressions were performed to determine if the parenting style of parents predicted the attributional style of the child and neither negative attributional style nor composite positive attributional style in children were predicted by any parenting style characteristics in parents.

Two Generations: Attributions predict Attributions mediated by Parenting

The conditions of mediation were met for composite positive attributional style characteristics: grandparent composite positive attributional style was a significant predictor of parent composite positive, \( \beta = .29, F(108) = 3.11, p < .05 \), attributional style characteristics (Condition 1) and of grandparent authoritativeness, \( \beta = .45, F(108) = 5.25, p < .05 \), attributional style characteristics (Condition 2), however, the standardized regression coefficient between grandparent composite positive attributional style and parent composite positive attributional style did not significantly decrease, \( \Delta R^2 = .001, p > .01 \), when controlling for authoritativeness (Condition 3).

Further, for grandparent to parent, the conditions of mediation were met for composite negative attributional style characteristics: grandparent composite negative attributional style was a significant predictor of parent composite negative, \( \beta = .52, F(108) = 6.29, p < .05 \), attributional style characteristics (Condition 1) and of grandparent authoritarianism, \( \beta = .19, F(108) = 2.03, p < .05 \) (Condition 2). The standardized regression coefficient between grandparent composite
negative attributional style and parent composite negative attributional style did not significantly decrease, $\Delta R^2 = .005$, $p > .01$, when controlling for authoritarianism (Condition 3).

For parent to child, the conditions of mediation were met for composite positive attributional style characteristics: parent composite positive attributional style was a significant predictor of child composite positive, $\beta = .32, F(108) = 3.47, p < .05$, attributional style characteristics (Condition 1) and of parent authoritativeness, $\beta = .21, F(108) = 2.82, p < .05$, attributional style characteristics (Condition 2). The standardized regression coefficient between parent composite positive attributional style and child composite positive attributional style did not significantly decrease, $\Delta R^2 = .002$, $p > .01$, when controlling for authoritativeness (Condition 3). Interestingly, parent composite negative attributions did not predict child composite negative attributions, violating Condition 1.

Three Generations: Attributions predict Attributions mediated by Parenting

From analyses of the effect of parent parenting style characteristics as mediators of the relation between grandparent and child attributional style characteristics, composite negative attributional style characteristics was not significantly related to the same attributional styles in children, which violated Condition 1 of mediational analyses (Baron & Kenny, 1986). Although the first condition of mediation was met for the composite positive attributional style: grandparent composite positive attributions predicted the same in children, $\beta = .19, F(108) = 2.02, p < .05$, but authoritativeness was not significantly predicted by composite positive attributions, $\beta = .18, F(108) = 1.92, p > .05$, violating condition 2.

Psychometric Analysis of ASM and ASM-C

Reliability

Internal consistencies of the ASM and ASM-C were computed using Cronbach’s alpha. Results indicated that the alpha coefficients on each subscale of the ASM were moderate to high ranging from .75 to .91, while the ASQ yielded subscale alpha coefficients ranging from weak to
moderate (.45-.63). The ASM-C also yielded moderate alpha coefficients ranging from .75 to .84 for individual subscales, while the alpha coefficients for the CASQ-R were weak, ranging from .16-.48. See Table 7 for Cronbach’s alpha coefficients and computed differences between ASM and ASQ, and ASM-C and CASQ-R alphas.

TABLE 7. Cronbach’s Alpha Coefficients for Attributional Style Measures

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Validity

Correlational analyses were utilized to determine the relation between the established attributional style measure (ASQ) and the ASM to determine criterion validity of the ASM. For grandparents, ASM stable positive attributional style characteristics were significantly related to ASQ stable positive, $r = .19, p < .05$, global positive, $r = .31, p < .01$, and internal negative, $r = -.19, p < .05$, attributional style characteristics. ASM internal negative attributional style characteristics were positively related, $r = .49, p < .01$, to ASQ global negative attributional style.
characteristics. Stable negative attributional style characteristics on the ASM were significantly related to global positive, \( r = -0.21, p < 0.05 \), internal negative, \( r = 0.20, p < 0.01 \), and global negative attributional style characteristics, \( r = 0.25, p < 0.01 \), on the ASQ. Grandparent internal positive attributional style characteristics as measured by the ASM were unrelated to any attributional style characteristics on the ASQ. See Table 8 for correlation coefficients.

**TABLE 8. Correlations between Attributional Style of the Grandparent ASQ and ASM Scores**

<table>
<thead>
<tr>
<th></th>
<th>IP-Q</th>
<th>SP-Q</th>
<th>GP-Q</th>
<th>IN-Q</th>
<th>SN-Q</th>
<th>GN-Q</th>
<th>IP-M</th>
<th>SP-M</th>
<th>IN-M</th>
<th>SN-M</th>
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<tr>
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</tr>
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<td>0.17</td>
<td>0.49**</td>
<td>0.17</td>
<td>-0.19*</td>
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<td>SN-M</td>
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<td>-0.19</td>
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<td>0.25**</td>
<td>-0.38**</td>
<td>-0.30**</td>
<td>0.37**</td>
<td>---</td>
</tr>
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</table>

\*\( p < 0.05 \), **\( p < 0.01 \)

*IP = Internal Positive, SP = Stable Positive, GP = Global Positive, IN = Internal Negative, SN = Stable Negative, GN = Global Negative, Q = ASQ, M = ASM*

The same correlational analyses were performed for parent ASQ and parent ASM scores to determine the relation of the two attributional style measures. For parents, ASM internal positive attributional style was positively related to ASQ internal positive, \( r = 0.22, p < 0.05 \), stable positive, \( r = 0.33, p < 0.05 \), and global positive, \( r = 0.33, p < 0.01 \), attributional style characteristics and inversely related to ASQ global negative, \( r = -0.23, p < 0.05 \), attributional style characteristics.
ASM stable positive attributional style was positively related to ASQ stable positive, \( r = .29, p < .01 \), and global positive, \( r = .28, p < .01 \), and inversely related to ASQ global negative, \( r = -.20, p < .05 \). ASM internal negative was positively related to ASQ stable negative, \( r = .23, p < .05 \).

ASM stable negative attributional style was inversely related to ASQ stable positive, \( r = -.34, p < .01 \), and global positive, \( r = -.32, p < .01 \), attributional styles and positively related to ASQ global negative, \( r = .29, p < .01 \), attributional style characteristics. See Table 9 for correlational coefficients.

**TABLE 9. Correlations between Attributional Style of the Parent ASQ and ASM Scores**

<table>
<thead>
<tr>
<th></th>
<th>IP-M</th>
<th>SP-M</th>
<th>IN-M</th>
<th>SN-M</th>
<th>IP-Q</th>
<th>SP-Q</th>
<th>GP-Q</th>
<th>IN-Q</th>
<th>SN-Q</th>
<th>GN-Q</th>
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<td></td>
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<tr>
<td>IN-M</td>
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<td>-.19*</td>
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</tr>
<tr>
<td>SN-M</td>
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<td>-.41**</td>
<td>.09</td>
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<td>.48**</td>
<td>.47**</td>
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</tr>
</tbody>
</table>

*p < .05, **p < .01

**IP = Internal Positive, SP = Stable Positive, GP = Global Positive, IN = Internal Negative, SN = Stable Negative, GN = Global Negative, Q = ASQ, M = ASM**

A correlational analysis of child CASQ-R and child ASM-C was performed to determine the relation of the two child attributional style measures. For children, ASM-C internal positive
Attributional style was positively related to CASQ-R internal positive, $r = .29, p < .01$, and stable positive, $r = .29, p < .01$, attributional style characteristics. ASM-C stable positive was positively related to CASQ-R internal positive, $r = .26, p < .01$, stable positive, $r = .30, p < .01$, and global positive, $r = .23, p < .05$, and inversely related to CASQ-R internal negative, $r = -.25, p < .05$, attributional style characteristics. ASM-C internal negative was positively related to CASQ-R internal negative, $r = .30, p < .01$, and inversely related to CASQ-R global positive, $r = -.21, p < .05$, attributional style characteristics. ASM-C stable negative attributional style was inversely related to CASQ-R internal positive, $r = -.23, p < .01$, stable positive, $r = -.32, p < .01$, and global positive, $r = -.27, p < .01$, attributional styles and positively related to CASQ-R stable negative, $r = .22, p < .05$, and global negative, $r = .30, p < .01$, attributional style characteristics. See Table 10 for correlation coefficients.

**TABLE 10. Correlations between Attributional Style Subscales of the Child CASQ-R and ASM-C**

<table>
<thead>
<tr>
<th></th>
<th>IP-Q</th>
<th>SP-Q</th>
<th>GP-Q</th>
<th>IN-Q</th>
<th>SN-Q</th>
<th>GN-Q</th>
<th>IP-M</th>
<th>SP-M</th>
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<td>-.37**</td>
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</tbody>
</table>

*p < .05, **p < .01 IP = Internal Positive, SP = Stable Positive, GP = Global Positive, IN = Internal Negative, SN = Stable Negative, GN = Global Negative, Q = ASQ, M = ASM

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Correlational analysis was utilized to determine the relation between the ASM attributional style characteristics and psychological variables (i.e., depression, anxiety, and stress) as a test of construct validity for the ASM. For grandparent ASM scores, stable negative, \( r = .24 \), \( p < .01 \), attributional style characteristics were positively related to depression. For the grandparent ASQ, global negative attributional style significantly related to anxiety, \( r = .25 \), \( p < .01 \), and stress, \( r = .20 \), \( p < .05 \), but not depression, \( r = .14 \), \( p > .05 \). See Table 11 for comparison of correlation coefficients.
TABLE 11. Correlations of ASM and ASQ with Psychological Variables (DASS) in Adults

<table>
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<th></th>
<th>Depression</th>
<th>Anxiety</th>
<th>Stress</th>
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<td>-.00</td>
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<td>.04</td>
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<td>-.28**</td>
<td>-.28**</td>
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*p < .05, **p < .01

For parent ASM scores, stable positive attributional style characteristics were inversely related to depression, $r = -.31, p < .01$, anxiety, $r = -.28, p < .01$, and stress, $r = -.28, p < .01$. Additionally, ASM internal negative attributional style characteristics were positively related to stress, $r = .24, p < .05$, and ASM stable negative attributional style characteristics were positively related to anxiety, $r = .25, p < .01$. For the ASQ parent scores, stable positive was significantly...
related to anxiety, $r = -.19, p < .05$. DASS parent depression scores were significantly related to global positive, $r = -.20, p < .05$, and global negative attributional style characteristics, $r = .19, p < .05$, and anxiety scores were significantly related to stable positive, $r = -.19, p < .05$ and global positive, $r = -.32, p < .01$, attributional style characteristics. See Table 11 for comparison of correlation coefficients.

On the ASM-C, stable positive attributional style characteristics were inversely related to internalizing, $r = -.30, p < .01$, externalizing, $r = -.19, p < .05$, and inattention, $r = -.32, p < .01$ problems. Stable negative attributional style characteristics were positively related to inattention problems, $r = .30, p < .01$. On the CASQ-R, internalizing behavior problems were positively related to global negative, $r = .37, p < .01$, and inversely related to stable positive, $r = -.21, p < .05$, attributional style characteristics. Externalizing behavior problems were positively related to internal negative, $r = .22, p < .05$, and global negative, $r = .22, p < .05$, and inversely related to stable positive, $r = -.32, p < .01$, and global positive, $r = -.24, p < .01$, attributional style characteristics. Inattention was inversely related to global positive, $r = -.24, p < .05$, attributional style characteristics. See Table 12 for comparison of correlation coefficients.
TABLE 12. Correlations of ASM-C and CASQ-R with Psychological Variables (PSC) in Children

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<td>CASQ-R Global Negative</td>
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<td>.16</td>
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</tbody>
</table>

*p < .05, **p < .01

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CHAPTER IV
DISCUSSION

Some potentially important findings were revealed in the present study. Most notably and as expected, attributional style characteristics and parenting style characteristics were interrelated both across and within generations. Further, psychometric data on the ASM and ASM-C appear promising in relation to the ASQ and instruments of psychological distress. Each of these findings is discussed further below.

Attributional Style

Main findings regarding attributional style in the present study indicated that attributional style characteristics of grandparents predicted the same attributional style characteristics in the following generation of parents. A possible explanation for attributional style characteristics being related across generations is that through indirect and direct modeling during childhood, each of us is impacted by how our parents handle and problem-solve life’s events. In adults, this may apply to attributions of both positive and negative events. The generational transmission of adult attributions are consistent with past research (Bell-Dolan & Wessler, 1994; Kaslow et al., 1988; Nolen-Hoeksema et al., 1986; Schwartz et al., 2000), although the present study analyzed attributional style components continuously, rather than simply focusing on high levels of one component and low levels of another (i.e., depressogenic style), allowing for the cross-generational analysis of the full range of each composite attributional style including the less studied positive attributional components.

Only attributions of positive events related across generations from parent to child. Perhaps by approaching positive events as being caused by factors that affect multiple areas of their lives (globality), factors that are likely to be present again (stability), and factors that are based internally (internal), parents may model a general positivity in thinking that is then adopted to some extent by their children. Parental attribution for positive events may be protective, in that
parent attributions of positive events relates to a lower likelihood of child depressogenic attributional characteristics when facing negative events.

In fact the present findings suggest that attributions of positive events may remain relatively stable across three generations. Specifically, grandparent attributions for positive events predicted child attributions of positive events, mediated by parent attributions for positive events. One possible explanation for this finding is that attributions for positive events may comprise a more stable construct than attributions for negative events when considering cross-generational variance. Past research indicated that thinking that positive events are caused by factors that will likely occur again is related to overall optimism or hope (Kashdan, Pelham, & Lang, 2002), which may be taught to proceeding generations by example (Brissette, Scheier, & Carver, 2002). The relation of positive attributions across generations could be conceptualized as the transmission of hopefulness when approaching life’s events. On a practical note, this three generational finding may be beneficial for further emphasizing familial factors as important in therapy work, particularly for understanding how an increase of positive attributions could occur within a family treatment context. Future studies should explore the relation between hope and attributional style across generations and may explore the generational impact and practical utility of encouraging a shift toward more stable positive attributions if such attributional tendencies are deficient.

Notably, attributions of negative events only related between grandparents to parents and not parent to child or across generations. Some researchers (e.g., Bruce et al., 2006) suggest that attributional style develops in middle childhood to adolescence; however, it is possible that attributions of negative events are less temporally stable than attributions for positive events. Another explanation might be that attributions to negative events change throughout the lifespan and may be affected by different and evolving factors as the individual develops cognitively. It is sufficient to say that based on previous theory on childhood attributional style development (Bruce et al., 2006), that the present study’s child participants (Mean age = 12.65) were likely
somewhere on the continuum of developing their attributional style. Thus, the stability of their reported style remains unclear, and future studies should aim to explore the trajectory of development for attributions for positive versus negative events.

Parenting Style

The main finding regarding parenting style in the present study was that grandparent parenting style characteristics significantly predicted parenting style characteristics in the next generation of parents. These results suggest that the parenting style of a parent is significantly influenced by how they themselves were parented. This finding is consistent with past research that negative parenting behaviors (i.e., those associated with authoritarian, permissive-indulgent, or permissive-neglectful styles) were associated with an increased potential for negative or abusive parenting practices in subsequent generations (Rodriguez, 2004); however, few studies investigated the role of relatively more positive parenting (i.e., authoritativeness) in the relation with such parenting in the next generation. Furthermore, the specific roles of beliefs and behaviors remain unclear. The present study measured beliefs and behaviors as part of an overall style but did not measure parental beliefs and behaviors separately. One study suggested that physical discipline consistent with an authoritarian parenting style (i.e., harsh criticism, physical punishment, and negativistic interactions) increased the likelihood that a child would later possess an authoritarian parenting style (Bower-Russa, 2005), which was mediated by parenting attitudes/beliefs. Thus, to further elucidate the present findings, future research should strive to measure parental behaviors and beliefs separately across generations.

Attributional Style and Parenting

In the present study, attributional style characteristics for grandparents significantly predicted their own parenting style characteristics. Specifically, positive attributional styles predicted higher levels of positive parenting style (i.e. authoritative) and negative attribution styles predicted higher levels of negative parenting (i.e. authoritarian and permissive). It seems plausible that a cognitive style consistent with negative expectancies would relate to negative
parenting characteristics. This connection implies that one level of intervention that may impact negative parenting is the attributional shift away from internal, stable, and global attributions of negative events.

It is possible that attributional style characteristics in grandparents and parents relate to specific behaviors or beliefs within a style of parenting but not other behaviors or beliefs endorsed by that style. For example, harsh physical punishment (i.e., behavior associated with an authoritarian style) and the belief that adults should be in complete control of a child's behavior (i.e. belief consistent with an authoritarian style), may not be equally responsible for or equally influenced by attributional style characteristics. Future studies should aim to measure behaviors and beliefs in the same study, but with separate measures, so that analyses can be conducted on beliefs alone and behaviors alone with respect to their relationship to attributions.

**Psychometric Data**

The present study's results indicated that the ASM and ASM-C's reliability were superior to those of the ASQ and the CASQ-R. Alpha coefficients on each subscale of the ASM and the ASM-C were moderate to high ranging from .77-.91, while the ASQ and CASQ-R had alpha coefficients that fell in the weak to moderate ranges (i.e., .16-.63). A past meta-analytic review reported a mean internal consistency of .56 with range of .40 to .66 for individual dimensions on the ASQ (Sweeney et al., 1986). Further, previous evidence on the reliability of the CASQ-R has found weak to moderate internal consistency at the subscale level (Gladstone & Kaslow, 1995). However, it is important to note that the ASM and ASM-C have more items than the ASQ and CASQ-R, which may have contributed to the ASM's reliability coefficients; however, past research on an expanded version of the ASQ only yielded slight improvements in composite scores over the original 12 item version (Peterson & Villanova, 1988). Interestingly, although the expanded version of the ASQ (n items = 24) exists, the original ASQ remains the most widely used by researchers (Hessling et al., 2002). Although the reliability estimates of the ASM and the
ASM-C are superior to those of the ASQ and CASQ-R, testing with a larger sample may provide further evidence of the utility of the scales.

Attributional style components measured by the ASM were related to the similar attributional components measured by the parent ASQ, indicating criterion-related validity. However, contrary to expectations, only global negative attributional style, measured by the ASQ, was weakly correlated with depression in parents, and none of the negative attributional style characteristics as measured by the ASM were related to depression in parents. For grandparents only stable negative attributions measured by the ASM were significantly related to depression and none of the ASQ negative attributional style characteristics related to depression. These findings are contrary to previous research that suggested that all negative attributional style components were related to severity and frequency of episodes of depression (Alloy et al., 1992). Present participants reported little depression symptomatology, an issue that may have limited potential results and may be one reason that depression scores failed to correlate with attributional style scores. Another explanation may be that the way people view positive events, instead of negative events, in their lives has an impact on their susceptibility to depressive thinking (Herman-Stahl & Petersen, 1996). In fact, in the present study, stable positive attributions measured by the ASM and global positive attributions measured by the ASQ inversely predicted depression. In other words, there is a lack of depression in the sample to begin with, arguably due to the protective effects of positive attributions. A sample with more depression would likely produce the expected relations between negative attributions and depression more consistently. Furthermore, several significant relations were found between the ASM and anxiety and stress and should be a focus of future investigations.

For children in the present study, attributional style components measured by the ASM-C were related to the analogous attributional components measured by the CASQ-R, indicating criterion-related validity. Consistent with the adult sample, negative attributional style components measured by the ASM-C were unrelated to emotional and behavioral problems in
children, however positive attributional style components were related to each internalizing, externalizing, and inattention problem subscales. These findings suggest some construct validity of the ASM-C, but also demonstrate limitations. Notably, the CASQ-R was superior to the ASM-C at predicting internalizing and externalizing problems with negative attributions in the present sample, thus further development of the ASM-C appears warranted. Further, psychological variables in children were measured by parents. Self-report measures may have increased the accuracy of the measurement of emotional problems in particular.

Limitations and Future Directions

There are several limitations to the present study. Parenting style characteristics, attributional style, and adult psychological variables were measured by self-report only, which may be subject to rater bias. Individual may have portrayed themselves in a more positive light limiting reported negative attributions and parenting behaviors. This lack of source variance may have also contributed to some of the relations between variables that were found in this study. In addition to self-report rater bias, participants may have self-selected for participation. For example, parents with negative parenting style characteristics may be less apt to participate in a study about the effects of parenting.

Although one purpose of the present study was to analyze the psychometric properties of the ASQ relative to the ASM, the ASQ was utilized for analysis with the PSDQ and other measures. Thus, given the poor internal consistency discussed in the present study, the relation between the ASQ and other variables may have been affected by poor reliability. Furthermore, the reliability of the ASQ may have been impacted by confused responding or single-cause dimension ratings as noted in past studies (Clark et al., 2006; Pritchard-Boone, 2004). Although adult-adult comparisons of attributional styles were analyzed with the same measure, child-adult comparisons could not be analyzed with the same measure potentially creating additional error variance in these analyses.
The present study examines cross-sectional relationships, however, longitudinal research is needed to address causal inferences. Further an examination of the differences of the attributional and parenting style contribution of males as compared to females would control for gender as a variable in intergenerational transmission. Further measurement of intergenerational attributional style in children of various ages may elucidate the theoretical concern of when the attributional style of a child is consolidated and most like or most unlike those in their family. Additionally, to address the issue of heritability, adopted samples and blended families should be used for analysis of the relationship between attributional style and parenting styles across generations. Lastly, although several relations were found among variables, given that multiple comparisons were made there is an increased probability of having made at least one Type 1 error. Within these limitations, the present study is a first attempt at examining attributional style across three generations.

Given the psychometric improvements of the ASM over the ASQ in terms of internal consistency, future studies should explore the psychometric analysis of the ASM and the ASM-C with larger samples to determine their place amongst attributional style measures. Given that attributional style characteristics were related across two and in some cases three generations, future studies may seek to explore the temporal stability of specific attributional style characteristics, and related factors, such as traits associated with resilience (with respect to positive attributions), that may affect the cross-generational relations. Many past studies have focused primarily on negative attributional style characteristics; however, the present study revealed that positive attributions were more consistently related across analyses of psychological variables and generations. This finding implies the importance of additional research on positive attributional style characteristics and their relation to similar attribution style components across generations, psychological functioning in children and adults, chronic illness, and parenting styles across generations.
Lastly, given the relationship between attributional styles, particularly for positive events, and parenting styles within and across generations, additional research on parenting styles and attributional styles as they relate to family structure and size, proximity of relatives, gender of the parent and child, and major negative life events may be warranted. These variables could influence the pattern of relations involving parenting and attributional styles, and such research may inform parenting interventionists on how best to bolster protective factors and positive parenting behaviors. The present study provides a generational approach to examining how parenting impacts the development of cognitive styles and other psychological variables, which may supplement the existing literature on parenting and further inform future investigations of these constructs.
TO: Lea Pritchard-Boone 
118 College Drive #5025 
Hattiesburg, MS 39406-0001 

FROM: Lawrence A. Hosman, Ph.D. 
HSPRC Chair 

PROTOCOL NUMBER: 26031401 
PROJECT TITLE: The Relationship Between Parenting Styles and Attributional Styles Across Generations 

Enclosed is The University of Southern Mississippi Human Subjects Protection Review Committee Notice of Committee Action taken on the above referenced project proposal. If I can be of further assistance, contact me at (601) 266-4279, FAX at (601) 266-4275, or you can e-mail me at Lawrence.Hosman@usm.edu. Good luck with your research.
**APPENDIX B**

**HUMAN SUBJECTS REVIEW FORM**

**UNIVERSITY OF SOUTHERN MISSISSIPPI**

**SUBMIT THIS FORM IN DUPLICATE**

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<td>Mailing Address</td>
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**Grant Number (when applicable):**

- [ ] New Project
- [x] Dissertation or Thesis
- [ ] Renewal or Continuation: Protocol # __________
- [ ] Change in Previously Approved Project: Protocol # __________

**Principal Investigator**

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**Advisor**

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**Department Chair**

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**RECOMMENDATION OF HSPRC MEMBER**

- [ ] Category I, Exempt under Subpart A, Section 46.101 ( ), 45CFR46.
- [x] Category II, Expedited Review, Subpart A, Section 46.110 and Subparagraph (B).
- [ ] Category III, Full Committee Review.

**HSPRC College/Division Member**

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**HSPRC Chair**

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HUMAN SUBJECTS PROTECTION REVIEW COMMITTEE
NOTICE OF COMMITTEE ACTION

The project has been reviewed by The University of Southern Mississippi Human Subjects Protection Review Committee in accordance with Federal Drug Administration regulations (21 CFR 26, 111), Department of Health and Human Services (45 CFR Part 46), and university guidelines to ensure adherence to the following criteria:

- The risks to subjects are minimized.
- The risks to subjects are reasonable in relation to the anticipated benefits.
- The selection of subjects is equitable.
- Informed consent is adequate and appropriately documented.
- Where appropriate, the research plan makes adequate provisions for monitoring the data collected to ensure the safety of the subjects.
- Where appropriate, there are adequate provisions to protect the privacy of subjects and to maintain the confidentiality of all data.
- Appropriate additional safeguards have been included to protect vulnerable subjects.
- Any unanticipated, serious, or continuing problems encountered regarding risks to subjects must be reported immediately, but not later than 10 days following the event. This should be reported to the IRB Office via the "Adverse Effect Report Form".
- If approved, the maximum period of approval is limited to twelve months. Projects that exceed this period must submit an application for renewal or continuation.

PROTOCOL NUMBER: 28031401
PROJECT TITLE: The Relationship Between Parenting Styles and Attributional Styles Across Generations
PROPOSED PROJECT DATES: 03/15/06 to 03/15/08
PROJECT TYPE: Dissertation
PRINCIPAL INVESTIGATORS: Lea Pritchard-Boone
COLLEGE/DIVISION: College of Education & Psychology
DEPARTMENT: Psychology
FUNDING AGENCY: N/A
HSPRC COMMITTEE ACTION: Expedited Review Approval
PERIOD OF APPROVAL: 03/14/06 to 03/13/07

Lawrence A. Hosman, Ph.D. 3-28-2006
HSPRC Chair
REFERENCES


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