Development of Child Attachment in Relation to Parental Empathy and Age
Katelyn R. Black and Jennifer P. Leszczynski*
Eastern Connecticut State University

ABSTRACT. The current study examined parental empathy in relation to perceived child-parent attachment as well as parental age. It was hypothesized that younger parents (between the ages of 18 to 24) would express lower child-directed empathy and, therefore, would report that their children were less attached to them than children whose parents report higher levels of child-directed empathy. Parents completed three online questionnaires: the Kinship Center Attachment Questionnaire, the Basic Empathy Scale, and the Parenting Empathy Questionnaire. Significant positive relationships were found between parental age and parental empathy, $r(120) = .23, p = .014$. Both parental empathy and basic empathy were found to significantly relate to parental attachment, $r(120) = .19, p = .020$ and $r(120) = .28, p = .002$ respectively. There was no relationship between parental age and attachment. The discussion portion of the paper offers hypotheses for why this occurred and directions for future research on parental age, empathy, and attachment.

One of the first relationships humans forge as infants is the relationship between child and parent. The strength of that relationship is based on the attachment that child feels to his/her parental figure (Bowlby, 1969). Attachment researchers focus on assessing and evaluating variables that could negatively or positively affect attachment (Ding, Xu, Wang, Li, & Wang, 2012; Meldrum, Young, & Flexon, 2012), yet there are many areas which remain unexplored. It has been theorized that empathy between two people within an attachment relationship will affect the attachment, yet the degree to which empathy affects child and parent attachment has not received much empirical attention (Britton & Fuendeling, 2005). The hypothesis that a parent’s age relates to their empathy for their child and the security of the parent-child attachment has yet to be investigated.

Parent-Child Attachment
Introducing the theory of internalized attachment in 1969, Robert Bowlby’s work focused on how children develop survival skills at birth and how these survival skills influence caregivers and their overall survival (Metzger, Erdman, & Ng, 2010). In his work, Bowlby introduced the idea that an infant could have either a secure or an insecure attachment. Assessment of attachment largely looks to the work of Mary Ainsworth, who introduced an assessment of attachment. Using the strange situation method, a child’s attachment can be defined as secure, insecure, and avoidant (Ainsworth & Bell, 1970). Since this groundbreaking research, however, many other methods for assessing attachment have been explored. One of these methods is the interview and questionnaire method. Developers such as Bhakoo, Pershad, Mahajan, and Gambhir (1994) found that questionnaires could validly assess mother to child attachment. Using...
Attachment, Empathy, and Parental Age

Black and Leszczynski

an interview method, Condon, Corkindale, and Boyce (2008) assert that assessments such as the strange situation favor mothers and should not be considered equally effective for fathers. Similarly, Shmueli-Goetz, Target, Fonagy, and Datta (2008) found that questionnaire assessments may have more validity than the strange situations simply because they do not assess children outside of their own environments. The current study employed a parent-completed attachment questionnaire to assess children’s attachment to their parent. Although questionnaire methods are not the preferred way to assess attachment, it is important to recognize the positive aspects (e.g., feasibility) of this method as well as possible negative influences (e.g., misperceptions of reporters, social desirability, and reporter bias). Further information on the assessment used in this investigation will be discussed.

Parental Empathy

Empathy is defined using two different dimensions. Affective empathy means vicariously experiencing the same or similar emotions as others, whereas cognitive empathy is related to the complete understanding of others through managed perspective taking (de Wied et al., 2007). Oppenheim, Koren-Karie, and Sagi (2001) investigated the theme of empathetic understanding and early attachment and found significant relationships between the two. The authors found that children who were securely attached had parents who made use of their understanding of their child’s point of view and used it in their favor. They also defined parents of children who were securely attached to be those who held a rich understanding of their children’s point of view. Empathy has been a pivotal topic of discussion in the development of support programs aimed at helping attachment relationships in at-risk families. Largely, the relationship between empathy and attachment has been defined as a circle of security within which children are free to explore their world and then return to their empathetic, understanding caretakers (Page & Cain, 2009). Deutscher, Fewell, and Gross (2006) support this concept in their investigation of intervention programs. Their research found that programs which boasted the highest success rates in allowing parents and children to securely form attachment bonds were programs which focused on child comprehension and sympathetic/empathetic understanding. The authors suggested that future programs redirect their focus to this area as well.

Attachment and Empathy

Self-concept, in relation to attachment, often goes beyond mere childhood acceptance and attachment to a parent. Kilmann, Vendemia, Parnell, and Urbaniak (2009) looked at attachment styles between mothers and their daughters and how mothers’ own attachments and displays of confidence, self-worth, and interest in their child’s self-worth affected daughters’ attachment scores. Parents who displayed acceptance, willingness to forgo control, and who were competent had securely attached daughters. Britton and Fuendeling (2005) found that when participants reported their levels of parental attachment as well as empathy levels, strong parental attachment correlated with higher levels of self-reported empathetic concern from parents. Feldman (2007) also supported the notion that attachment and empathy have a direct relation to one another. She concluded that child and mother behavior work in an integrated circle, and children learn major aspects of empathy from securely attached parents. In summary, children who are securely attached to their parental figure are found to have higher levels of empathy, which is believed to have been learned by the secured parental figure. These data support the notion that children of accepting and open parents (i.e., those who displayed higher levels of empathetic understanding) display better attachment.

Parental Empathy, Attachment, and Age

The majority of age-related empathy research has found that empathy is developed over the lifespan. Empathy is believed to begin to develop around the age of five, but new research in the field supports the idea of empathy understanding at an even younger age (Grühn, Rebucal, Diehl, Lumley & Labouvie-Vief, 2008; Spreng, McKinnon, Mar & Levine, 2009). Nonetheless, the empathy developed in childhood is inevitably self-centered and requires much further development (Bryant, 1982). Studies have shown that even in adolescence and early adulthood, empathy has not fully developed, and many young adults may have very low levels of empathy that require many more years’ worth of life experience before fully forming (Grühn et al., 2008). A lack of empathy in young adults leads to the question of how age in parents may influence the empathetic understand between parents and children, and in turn, how attachment relationships can be influenced. Giardino, Gonzalez, Steiner, and Fleming (2008) examined...
physiological differences between empathetic understanding in teen moms and non-teen moms. They found that teen mothers had no changes in levels of cortisol (a chemical produced when a person is feeling sympathetic towards another) in their saliva in reaction to their children’s cries, nor showed significant changes in heart rate in response to cries. Non-teen mothers showed spikes in both physical signals. Swain, Lorberbaum, Kose, and Strathearn (2007) also found that parental brains which have less “experience” with the emotional responses required for empathetic awareness and responsiveness are unable to properly process all the emotional and physical responses required for proper understanding and may be less empathetic toward their children. However, the research has been inconclusive, because there is little research in the area of adolescent and young adult empathy. Scales and questionnaires have been developed to assess and measure empathy during adolescence, but the research has not looked at cross-sectional comparisons to other age groups, including both young and average age parents (Hashimoto & Shiomi, 2002). Research that prolonged separation from an infant led most mothers to feel a decreased attachment to their children (Bhakoo et al., 1994). Previous research has not looked at the relationship between attachment, parental empathy, and parental age.

For this investigation, the relationship between parental empathy, child attachment to the parental figure, as well as parent’s age were assessed. We hypothesized that parent age at the time of their first child’s birth (i.e., the child whose attachment was being assessed), would be positively correlated with child-directed parental empathy (H1). We also hypothesized that parents who reported higher levels of parental empathy as well as overall, basic empathy would also report their child as having a more secure attachment with the reporter than those who reported lower empathy (H2). Because we expected empathy and attachment to be related, and age was hypothesized to predict empathy, we also predicted that parental age would positively correlate to attachment.

**Method**

**Participants**

Participants were recruited through advertising in local area daycares and through email messages from the daycares to parents. A total of 127 completed surveys were collected. The average age of the participant when their target child was born was 29 (SD = 7.03). Children were between 1.25 and 11 years of age (M = 4.47, SD = 3.16). Six participants were dropped from the analysis due to the fact that the child they answered the survey for (their firstborn child) was outside of the proper age range for the assessment of attachment using the selected attachment questionnaire. Of these participants, 86% (n = 105) were women and 13% (n = 17) were men. For self-reported ethnicity, 82% (n = 100) of participants identified as non-Hispanic White, 10.7% (n = 13) identified as Hispanic/Latino, 2.5% (n = 3) identified as Black/African American, 2.5% (n = 3) as American/Alaskan Native, and 1.7% (n = 2) as ‘other’ (both identifying as Australian).

**Procedure**

Prior to data collection, Institutional Review Board approval was received for the study (Protocol #1121). All data was collected online. Local daycares were contacted months prior to the online survey’s launch and asked for permission to post flyers and send emails in regards to the study and the online survey. Six different daycares in the area agreed to advertise the study to the enrolled parents through flyers placed in children’s cubbies as well as through email. All daycares had classrooms serving children from infancy to Pre-K, with each classroom advertising to about 10 families. We estimate that between 250 and 300 families were contacted for the study for a response rate between 42 and 50%. Flyers and emails advertised that any participant who chose to complete the survey would be given an opportunity to enter their email address at the end of the questionnaires for a chance to win one of six $25 gift cards. Upon entering the survey website, participants were required to fill out a consent form which explained the purpose of the research and confirmed that participants were 18 years of age or older. Participants were then asked to fill out a demographic survey inquiring to their age at the time of their firstborn child’s birth, their firstborn child’s current age, ethnicity, biological sex, and estimated yearly income. Participants were then presented with the attachment and empathy measures. After submission of this survey, participants were redirected to a debriefing page and an external link for their choice of submitting their email for the drawing.

**Measures**

**Attachment**

Attachment was measured via the 20 question Kinship Center Attachment Questionnaire (KCAQ: Kappenberg & Halpern, 2006). The
Attachment, Empathy, and Parental Age

questionnaire measures attachment and has four subscales: positive adjustment/development, negative behavior, emotional reactivity, and distancing from caregiver support. The Chronbach’s alpha for the measure as a whole is (α = .75). Through the overall attachment measure, the higher the score, the more insecure the attachment is assumed to be. Most items within the subscales are worded negatively, but some are positively worded and are reverse coded. Within the subscales, positive adjustment/development (α = .69) includes questions assessing social skills and availability (e.g., “My child plays well with other children.”). Negative behavior (α = .63) assesses poor social or defiant behaviors (e.g., “My child destroys or breaks things that belong to others”). Emotional reactivity (α = .65) assesses dependency behaviors (e.g., “My child is excessively clingy”). Distancing from caregiver support (α = .56) assesses avoidant behaviors, (e.g., “When my child is in pain, he or she does not show it”). The KCAQ uses a 7-point Likert-type scale with items rated from 0 (never/rarely) to 6 (almost always).

Basic empathy. The Basic Empathy Scale (BES; Albiero, Matricardi, Speltri, & Tosò; 2007) was originally developed for measuring basic empathy in adolescents. For the present study, the questions were reworded to shift the emphasis from friends (e.g., “My friends’ emotions don’t affect me much”) to others, (e.g., “Other people’s emotions don’t affect me much”). The reliability for the scale was high at (α = .87). The BES contains two subscales: cognitive empathy (9 items, α = .79) and affective empathy (11 items, α = .85). The scale assesses agreement to the items based on a 5-point Likert-type scale ranging from 1 (strongly disagree) to 5 (strongly agree). Higher scores indicated higher levels of basic empathy toward others. A total of seven items were reverse scored.

Parental empathy was assessed via Psychogiou, Daley, Thompson, & Sonuga-Barke’s (2008) adaptation of the Interpersonal Reactivity Index (IRI; α = .83) and reformatted into the Parental Empathy Scale (PEI). The measure contains three subscales: perspective taking (α = .77; e.g., “I always try to take an objective approach to dealing with my child”), emotional concern (α = .77; e.g., “I often have tender, concerned feelings for my child”), and psychological egotistical distress (α = .74; e.g., “I tend to lose control during my child’s emergencies”). Each subscale contains seven items that are rated on a 5-point Likert-type scale ranging from 0 (does not describe me well) to 4 (describes me well). Seven items are reverse coded and the higher the final score, the higher the parental empathy a parent is assumed to feel for his/her child.

Results

Parent Age and Empathy

The age of parents at the time of their oldest child’s birth was compared to their personal scores on the parental empathy scale (PEI). Initial tests were run to find that there was a linear relationship between age and PEI scores as well as one of the BES subscales. Following this, a Pearson’s r correlation was calculated for the full scales of both the parental empathy (PEI) and basic empathy (BES) measures. These correlations can be seen in Table 1. A significant positive correlation was found between parental empathy (PEI) and parental age, r(120) = .22, p = .014. This finding supports the initial hypothesis. No significant relationship between the basic empathy scale (BES) and age was found. However, subsequent correlational analyses were conducted to examine the relationship between subscales. For the BES, only one subscale, personal distress, correlated with parental age, r(120) = .21, p = .036. Personal distress-related empathy increased as parental age increased.

Parent Empathy and Child Attachment

A significant correlation was found between basic empathy and KCAQ scores. Basic empathy positively correlated with the KCAQ scores, r(120) = .28, p = .002. A significant correlation was also found between parental empathy and secure attachment, r(120) = .19, p = .020. This finding indicates that parents reporting higher levels of basic empathy reported that their children had higher levels of secure attachment. All the subscales within the BES had significant correlations with KCAQ scores. These positive correlations, seen

<table>
<thead>
<tr>
<th>Measure</th>
<th>M</th>
<th>SD</th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Empathy (BES)</td>
<td>50.34</td>
<td>7.03</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Parent Empathy (PEI)</td>
<td>47.03</td>
<td>7.7</td>
<td>-.13</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Attachment (KCAQ)</td>
<td>48.89</td>
<td>8.09</td>
<td>.28*</td>
<td>-.21*</td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>29.12</td>
<td>7.04</td>
<td>.048</td>
<td>-.22*</td>
<td>.13</td>
</tr>
</tbody>
</table>

Note: *p < .01
in Table 1, do not support the hypothesis that as basic empathy increases so will secure attachment. However, the PEI correlated negatively with KCAQ scores, \( r(120) = -.21, p = .036 \), and therefore suggests that parents who reported higher levels of parental empathy tended to have children with less secure attachment. A final, notable finding within the subscales is that only one subscale, personal distress, correlated with parental age. Personal distress-related empathy increased as parental age increased. A stepwise multiple linear regression was calculated to predict participants’ attachment score (KCAQ) based on their basic empathy (BES) and Parental Empathy (PEI) score. The regression equation was significant, \( F(2,119) = 7.30, p < .001 \), with an \( R^2 \) of .094. These findings show that not only do empathy and parental attachment have a significant relationship, but that empathy scores for both personal as well as parental empathy may be used to predict overall attachment between parents and children.

Parent Age and Child Attachment

A Pearson’s \( r \) correlation was calculated between the KCAQ and parents’ age at their child’s birth. No significant relationship was found, \( r(120) = .13, p = .146 \). This does not support the hypothesis that parental age and self-reported child-parent attachment are related.

Discussion

Although the study found significant correlations and regressions between empathy and attachment, the findings did not completely support the overall hypotheses. The hypothesis that age is related to parental empathy was supported by the data. However, parental empathy scores related oppositely to attachment than initially hypothesized. With such emphasis placed on empathy and attachment, it is curious how these results came about. However, many factors contribute to parent-child attachment above and beyond empathy. Page and Cain’s (2009) study on the security of attachment and its relation to empathy did support the notion that empathy is important to secure attachment, but many other factors, including encouragement of exploration and parenting styles were found to relate strongly to secure attachments. Though empathy may be important to attachment, the relationship between parent and child outside of the empathy aspect may be more important still. This notion is also supported by Britton and Fuendeling’s (2005) study. Their research found that parental empathy, as well as many other moderating factors, such as parental temperament correlated with more secure parental concern.

This research leads to question the reliability in self-reported attachment and empathy and the confidence factor of self-report assessments. Conrad, Gross, Fogg, and Ruchala (1992), found that some mothers who were maladapted to caring for their children (including not responding empathetically to their children), reported higher confidence in their childcare skills than those mothers who responded to their children’s need appropriately. Conrad et al. (1992) dubbed these mothers “naively confident” (p. 360) and found that they were at an incredibly high risk for low responsiveness and low child-parent attachment due to the self-report of their parenting confidence and their inability to recognize breakdowns in their mother-child interactions. An excellent way to control for this variable in future research would be an inclusion of a parental self-efficacy measure. This measure could help control for perceived efficiency in variables such as attachment relationships and empathic understanding and would assess actual parenting confidence and abilities (Barnes & Adamson-Macedo, 2007).

The results revealed there was a significant relationship between parental age and parental empathy. This supports the notion that empathy is developed as one ages, and younger parents may have not yet developed their empathetic understanding as thoroughly as older parents. Research has previously supported the notion that teen parents may experience lower levels of empathy toward their children. Studies supporting the initial hypothesis discussed how teens and adolescents require time and experience to gain empathetic understanding (Grühn et al., 2008). Swain et al., (2007) found parents who have had less physical time dealing with the mental act of empathetic understanding (such as those still in their teens and early twenties), have increased difficulties understanding and physically reacting to the empathetic needs of their children. Experience with childrearing, which generally is expected to increase due to exposure to children, is another influence to keep in mind when it comes to parental reports of empathy in relation to age. Parents may express empathy more effectively to their proceeding children than to their first child simply due to experience. Being that the current study did not inquire as to the number of children a parent currently had and did not measure...
empathy or attachment in the first child compared to others, this is a considerable limitation to the study and should be referenced in future works. Although the pool of participants in their teens or early twenties at the time of their child’s birth was not as large in the current study’s sample, the results suggest that across the small range of ages within the current participant pool, empathy did increase as age increased. Further research may focus on cohort effects. Lifespan studies in the area of empathy and age have found that certain cohorts differ in their reports of empathy across a longitudinal study (Grühn et al., 2008). It would be compelling to find if recent historical events have affected current teen cohorts and their parental empathy and attachment.

One of the issues that surfaced after data collection dealt with the fact that the Kinship Center Attachment Questionnaire was meant for parents of children 0 to 6 years of age. However, about 33% of valid participants had children older than six. The questionnaire was thoroughly reviewed, and we determined that all of the questions were valid to ask parents of older children. However, it is important to bring this to the attention of those who wish to conduct future research in this area, as children’s ages may have played a role in the present results. Traditionally, the measurement of attachment has been completed through observations and coding rather than questionnaires. Though there has been significant progress in the development of questionnaires, there is still a negative perception in the psychological community against using these measures in lieu of observations. It is generally believed that explicit questionnaire measures are incapable of capturing attachment behaviors (Shmueli-Geotz et al., 2008; Condon et al., 2008).

With the promising results collected in this initial study, it is quite plausible that a similar study using an age-diverse participant pool would draw a different relation between variables. These pools could be achieved via resources such as young parenting groups, advertising in areas such as Planned Parenthood, or advertising at local parenting classes. Daycares as a main recruitment location may have hindered the study from obtaining diverse results simply because parents of younger children may not have access to daycare services or the Internet. A correction of recruitment methods could allow for a much more representative pool of participants.

Conclusions

In conclusion, although all of the hypotheses were not supported, the results lend credibility for studying parental empathy in future attachment research. The attachment between a child and a parent is one of the resounding and influential building blocks in a child’s life (Bowlby, 2007). Time and time again, research has shown the importance of a secure attachment relationship in relation to children’s achievement, confidence, and self-worth (Cassidy, 1988). Research should continue to examine which factors could affect attachment relationships negatively as well as positively. With research giving us an understanding concerning which variables affect attachment, educators, and researchers can strive to inform future and current parents on how to best relate to their children and create meaningful, secure bonds. At this point, relationships between empathy, parental empathy, attachment, and parental age have been shown in this study, and further research in this field will undoubtedly produce results that will benefit the field of developmental psychology and attachment.

References


Attachment, Empathy, and Parental Age


Author Note. Katelyn R. Black, Department of Psychology, Eastern Connecticut State University. Jennifer P. Leszczynski, Department of Psychology, Eastern Connecticut State University. Katelyn R. Black is now at the Department of Psychology, West Virginia State University. Correspondence concerning this article should be addressed to Katelyn R. Black, Department of Psychology, West Virginia State University. Email: krblack@mix.wvu.edu