Mental Models for Parenting:  
Correlates of Metaparenting among Fathers of Young Children 

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The present study explored the antecedents and correlates of metaparenting, defined as mental plans for parenting across five subscales: responding, preventing, monitoring, mentoring, and modeling. Cross sectional data on a diverse sample of 74 fathers were drawn from a larger longitudinal project that interviewed men four times over the first two years of their children’s lives. A structural equation model revealed that fathers’ reports of positive parenting role models and intelligence were found to be related to working models of parenting as measured by the five components of metaparenting. Most importantly, higher levels of metaparenting were associated with authoritative parenting and less abuse potential. Results provided preliminary evidence for the importance of a mental model of parenting among fathers. 

Keywords: fathers, metaparenting, role models, working models 

As cultural ideals about parenting have changed over the last century, the role of the father in the American family has shifted dramatically. In concert with altering ideas of male identity and masculinity, a growing number of fathers are moving beyond the role of the household breadwinner and embracing the idea of being a more emotionally involved co-parent (Cabrera, Tamis-LeMonda, Bradley, Hofferth, & Lamb, 2000;
LaRossa, 1988; Parke, 1995). Over the past few decades, modern fathers have become increasingly involved in their children’s lives (Pleck & Masciadrelli, 2004) as they have taken on additional childcare responsibilities (Yeung, Sandberg, Davis-Kean, & Hofferth, 2001). In turn, research has shifted from concentrating solely on the mother/child dyad to examining fathers’ contributions to children’s development (Lamb, 2000). The variability in how men parent is best understood in the context of men’s past experiences, what constitutes paternal identity, and how fathers view themselves in their parenting roles (Parke). A more developed conceptualization of how fathers construct their paternal identities and plan parenting strategies will likely contribute to further understanding how fathering impacts child development. The present study investigated factors influencing paternal identity formation, focusing on father absence during childhood and positive parenting role models in the development of working models of parenting (referred to as metaparenting), and their subsequent impact on parenting practices.

Paternal Identity Development

A man’s “identity as father” is affected by his internalized expectations about how a father should behave as a parent and the prominence of that role in his identity hierarchy (Maurer, Pleck, & Rane, 2003). For men, a hierarchy contains roles such as father, employee, husband, son, teammate, and church member. A father will have as many identities as roles that he plays in life (Rane & McBride, 2000). The order of the hierarchy changes over time as some roles are added, some removed, and others shift in importance. These changes are due to the salience of paternal identity in different domains over time (Ihinger-Tallman, Pasley, & Buehler, 1993).

For example, when a man becomes a father, it is likely that roles which impact parenting to a lesser degree (e.g. team member and son) will diminish in gratification as he focuses more of his time and energy towards roles more directly related to parenting (e.g. father, spouse, and employee). His ideas about fatherhood dictate how roles more influential to parenting behavior align themselves in the hierarchy. For example, some fathers feel that breadwinning is most important, others endorse the need to support their spouse in her parenting roles, whereas some embrace fully the major responsibilities of fathering (Maurer et al., 2003). Roles that remain prominent across time and contexts imply an importance to paternal identity and result in more dedication of time and energy towards the parenting role (Ihinger-Tallman et al., 1993).

The specific parenting behaviors new fathers adopt is dependent on (1) the amount of support provided by others, (2) how much commitment and investment are provided by the individual to paternal identity, and (3) how much gratification is felt in fulfilling the parenting role (Rane & McBride, 2000). The first component is externally driven by social support provided by parents, wives, and friends, whereas the latter two are intrinsically-motivated. A father’s commitment, investment, and pride in fathering, which all contribute to child development, arise from multiple and varied sources. It is likely that a father with a more salient paternal role will spend more time with his chil-
dren, and have higher quality interactions during the time spent together. Given the impact of paternal identity on parenting behaviors, it is important to identify the factors that predict the placement of fathering within a man’s identity hierarchy. The “inner father,” or working model of parenting, is influenced by actual experiences with an individual’s father during childhood (Krampe, 2003), and likely contributes to the perceived prominence and importance of the role as father.

Working Models of Parenting: Positive Role Models

Assessing the presence of a positive parenting role model may help explain variability in parenting practices and influence fathers’ preparation for parenting. Role models affect paternal identity development by influencing the development of a working model of parenting. That is, parenting attitudes and beliefs that fathers adopt are likely influenced by how their own parents displayed appropriate parenting behaviors during childhood (Daly, 1993; Krampe, 2003). For example, authoritative parenting, in which parents are warm, responsible, and involved, (Baumrind, 1971), has been associated with higher self-esteem as well as greater cognitive and social maturity (Patock-Peckham, Cheong, Balhorn, & Nagoshi, 2001; Slicker & Thornberry, 2002). In contrast, parenting that is low on warmth and responsivity, has been linked to neglectful and abusive behaviors, and less than optimal child outcomes (Dixon, Browne, & Hamilton-Giachritsis, 2005; Knutson, DeGarmo, Koepppl, & Reid, 2005). Researchers have investigated the intergenerational transmission of the authoritative parenting style (Belsky, Jaffee, Sligo, Woodward, & Silva, 2005), highlighting the importance of paternal modeling of appropriate parenting behaviors in order to prepare sons for future parenting roles. Moreover, the development of paternal identity and an appropriate model of parenting could be reliant on the parenting style modeled during childhood. More comprehensive working models of parenting would include thoughtful and precise knowledge and beliefs of parenting, increasing the likelihood that new fathers will inform themselves of norms and milestones of child development, which have been linked to higher quality home environments and more optimal behavioral outcomes for children (Benasich & Brooks-Gunn, 1996). Additionally, fathers may have reduced parenting stress levels as a result of having developed adequate and comprehensive parenting schemas that may be generalized to both familiar and novel situations (Bowlby, 1982). Fathers will be better prepared to handle parenting challenges that are more stressful when compared to those who have inadequate working models of parenting.

The development and effectiveness of role models is likely altered by divorce or separation, or other instances which impact father presence in the home. Past research has shown that fathers in intact families are more involved with their children (Yeung et al., 2001) and that non-residential fathers often have marginal involvement and fragile relationships with their children (Doherty, Kouneski, & Erikson, 1998). Father presence and involvement is likely to decline in the years following the divorce (Doherty et al.), and father/child relationships under these circumstances are more likely to be
strained (Zill, Morrison, & Coiro, 1993). Divorce and residential status during childhood often impact a father’s availability to his child, and the importance they have in their development (Radin & Sagi, 1982). In turn, father absence is likely to negatively influence the emergence of working models of parenting, which would prepare young men for fatherhood later in life.

**Metaparenting**

Father absence during childhood and positive parenting role models may be two sides of the same coin, with both contributing in contrasting ways to paternal identity development and subsequent working models of parenting. The extent of development of a father’s working model may be evident through their use of metaparenting; a man with more developed thoughts about parenting (i.e. metaparenting) likely had experiences that fostered fathering to be prominent in their identity hierarchy. Holden and Hawk (2003) defined metaparenting as “a class of evaluative parental thought concerning the child-rearing domain that typically occurs before or after parent-child interactions” (p. 191). The prefix “meta” refers to knowledge concerning internal processes that result in a more comprehensive understanding of parenting; much like meta-memory or meta-logic represents knowledge about the process of memory or logic, metaparenting refers to thinking about or reflecting on parenting practices. Holden and Hawk’s interpretation of metaparenting focuses on four categories of cognitions about parenting: anticipating issues that might arise in childrearing, assessing children’s development and surrounding contextual situations, problem-solving in the face of parenting challenges, and reflecting upon parenting and parent/child interactions. These components of metaparenting are related to social connectedness and support, as well as an individual’s transition into parenthood (Hawk & Holden, 2006; Holden & Hawk).

If parenting plans are adequate, and contain sufficient information about appropriate parenting behaviors, child development will likely be enhanced (Borkowski, Ramey, & Stile, 2002). Specifically, a mental map, or parenting plan, can be represented by five areas of parenting which are collectively referred to by the acronym RPM3: responding appropriately to children’s needs, preventing adverse situations, monitoring influences on development, mentoring children’s development, and modeling appropriate behavior. These categories overlap and expand upon Holden and Hawk’s (2003) initial metaparenting categories. For example, anticipating was originally defined as an analysis of something that has yet to occur in childrearing, an idea congruent with preventing. A working model, or metaparenting plan, provides a starting point for sharing parenting ideas with others while incorporating personal values, new experiences, and information leading to a repertoire of effective parenting practices (Borkowski et al.).

**Present Study**

The current study examined contributions to paternal identity - father absence and the presence of positive parenting role models - and how paternal identity may affect
the ability to think about and describe parenting strategies (i.e. metaparenting) and, in turn, to parent their children consistently and effectively. Data were drawn from the Notre Dame Fathers’ Project, a longitudinal study which followed a diverse group of fathers beginning when their children were six-months of age and continuing until their second birthday. At the onset of the project, men reported whether their own father lived away from them at any point during childhood and whether they had any specific people or experiences that had prepared them for parenting. In addition, fathers were interviewed regarding their level of metaparenting, which was assessed on five dimensions of parenting information– responding, preventing, monitoring, mentoring, and modeling.

The conceptual framework used to guide the present study is depicted in Figure 1. A negative relationship was expected between fathers who identified positive parenting role models and those whose own fathers were absent from their lives during childhood, either due to non-residential status or a total lack of contact. Fathers’ absence during childhood and positive parenting role models were expected to influence the emergence of a working model of parenting as evidenced by metaparenting. In turn, metaparenting was hypothesized to impact parenting stress, style, and knowledge as well as paternal abuse potential. Based on the conceptual model, fathers who had residential fathers during childhood were expected to demonstrate more active thinking.
about their desires and plans for their children’s futures, which would be reflected in their parenting behaviors and beliefs. In contrast, those who did not have consistent father presence during childhood were expected to possess less optimal parenting strategies as a result of having more limited and restricted models of parenting. Since paternal age, intelligence, and previous experiences with parenting could all impact meta-parenting, these variables were included as controls in the model.

Three major hypotheses based on the proposed model tested the antecedents and correlates of metaparenting. First, father absence during childhood was expected to negatively correlate with fathers identifying positive role models as helping them prepare for parenting. Second, both father absence and the presence of positive parenting role models were hypothesized to increase fathers’ propensities to think about parenting goals and strategies. Third, metaparenting was expected to be associated with more optimal parenting, including lower parenting stress, more authoritative parenting, greater knowledge of child development, and lower levels of abuse potential. Results from this study should advance our understanding of how fathers’ past experiences influence their ability to think about parenting and identify the importance of metaparenting in understanding parenting attitudes and beliefs.

Method

Participants

The majority of participants (n = 45) in the Notre Dame Fathers’ Project (NDFP) were originally drawn from families in a larger, nationwide longitudinal study, Parenting for the First Time, which assessed neglect in mother/infant dyads. These mothers were recruited through hospitals, health clinics, social service agencies, and school-aged mothers programs. The sample of mothers was diverse and included adolescents (58%), adults with low-educational attainment (less than 2 years of college; 25%), and mothers with college, graduate, or professional degrees (17%). Mothers from the South Bend, IN site were asked to give contact information for their baby’s biological and/or social fathers. The fathers were then contacted and asked to participate. To increase sample size, fathers were also recruited for the study from community locations such as sporting facilities and churches (n = 10), as well as from other parenting studies at the Notre Dame Center for Children and Families (n = 19) that assessed both high- and low-risk mother/child dyads.

Of the approximately 127 fathers whose contact information was obtained, 26 were unable to be reached because of disconnected or non-current phone numbers, domestic abuse situations, military service, or lack of contact with the child. Among the potential sample of 101 fathers, 14 refused to participate, in some cases citing paternity disputes (n = 2) or a lack of time (n = 3), resulting in a final sample of 87 fathers. According to maternal reports, these fathers were similar in age, ethnicity, and employment status to fathers who did not participate, but they had slightly higher educational attainment, t(125) = -2.33, p < .05, were more likely to be married or partners with their
child’s mother, $\chi^2(4, N = 111) = 19.16, p < .01$, and had higher levels of involvement with their children, $\chi^2(1, N = 109) = 8.40, p < .01$.

Fathers were interviewed when their children were 6, 12, 18, and 24 months old for the Notre Dame Fathers’ Project, however, the current study used information gathered from the 6, 12, and 18 month interviews. Because metaparenting was examined at 12 months, fathers who were only assessed at 6 or 24 months ($n = 8$) were not included in the sample, and 5 additional fathers did not have metaparenting data, resulting in 74 fathers who had the appropriate data for the current study. These fathers were similar to the full sample in terms of age and ethnicity, but they were more likely to have a high school diploma than those who were omitted, $\chi^2(1, N = 87) = 8.22, p < .01$. Despite this, there were no differences between the full sample and the current sample in terms of college completion.

Since fathers were recruited from a maternal study containing individuals with varying levels of risk; the current sample displays similar diverse characteristics and includes low, moderate, and high-risk individuals. Fathers’ mean age at the birth of their child was 27.02 years ($SD = 7.9$; range = 14-54). Approximately 12% were social fathers who were actively involved in their children’s lives; social fathers were either new boyfriends, uncles, grandfathers, or other male relatives. The majority of the sample was European-American (60.8%), 21.6% identified themselves as African-American, 12.2% as Multiracial, and 5.4% as Latino. Although some fathers were non-resident (12.3%), the majority lived with the target child (87.7%). Nearly half were married (48.6%); an additional 33.8% were still in a relationship with their child’s mother; 14.9% were single, and 2.7% were divorced. In terms of educational attainment, 17.6% of the sample had not completed high school; 33.8% obtained only a high school degree or the equivalency; and 48.6% continued or were in the process of continuing their education beyond high school. Nearly a third of fathers were unemployed (28.4%); however, the majority of those who were employed worked at least 30 hours per week (90.6%). Although most of the mothers from which these fathers were recruited were first time mothers, only 80% of fathers were first time fathers: 13% had one other child and 7% had two or more children at the birth of the target child.

**Measures**

*Demographic information.* When fathers entered the project, they were administered a Life History Questionnaire, an interview designed to facilitate a conversation-like experience. This yielded basic demographic information such as age, ethnicity, marital and residential status, number of other children, and whether the father was a biological or social father. In addition, the life history provided information regarding fathers’ employment status and highest level of educational attainment.

*Intelligence.* The Wechsler Abbreviated Scales of Intelligence (WASI; Wechsler, 1999) were used to assess paternal intelligence at the six month interview. Only the vocabulary and matrix reasoning subscales were used in order to obtain a brief and ac-
accurate measure of intelligence. These subscales were combined to yield an overall intelligence score. The vocabulary subscale was made up of 42 items and the matrix subscale contained 35 items. Both subscales were similar to those found in the other Wechsler scales. Reliability coefficients for individuals in the age range represented by the sample were .90 - .93 for vocabulary and .88 - .92 for matrix reasoning.

**Father absence.** Childhood residential status and fathers’ experiences of parental divorce or separation were drawn from the Adult Attachment Interview (AAI). The AAI is a semi-structured, 19-question interview that is used to identify attachment classifications by probing about childhood experiences (George, Kaplan, & Main, 1996); however, the interview is also rich in information pertaining to childhood experiences. The interview was coded to answer objective questions about fathers’ childhood such as whether or not their parents divorced, how often they were in contact with their father post-divorce, and if they had stepfathers. If any item was not explicitly stated during the AAI, then it was recorded as missing. Father absence was a dichotomous variable based on if fathers reported parental divorce or break-up during childhood, after which they were no longer residing with their biological fathers. This variable was coded for each participant who had completed an AAI.

**Positive role models for parenting.** How fathers were prepared for parenting was assessed using questions from the Paternal Life History Questionnaire and the RPM3 interview: “How do you think you developed these ideas [of what it means for you to be a father]” and “Do you feel like you’ve had people or experiences in your life that have prepared you for being a father?” Fathers’ reports of their preparation for parenting were divided into five different types: (1) positive role models (e.g., “My dad always made an effort to be at extra curricular activities, I always felt supported”); (2) negative role models, (e.g., “My father was a bad father so I know what not to do”); (3) role models from the present, (e.g., “I watch my sister and friends and see what they do – both good and bad”); (4) discussion of past childcare experiences such as babysitting (e.g., “I took care of my sisters. I was an early-aged adult”); or (5) no preparation for fatherhood, (e.g., “Nobody taught me, it just came natural”). In addition, an “other” category was noted when fathers discussed influences such as their faith or belief in God, parenting classes, books, and television programs. The six categories were not coded to be mutually exclusive, that is, a father could report both a positive role model and experience with childcare. For each participant, preparation for parenting ratings were double coded with 97% agreement; cases that were coded discordantly were decided collaboratively.

**Metaparenting.** The RPM3 interview is a 19 question, semi-structured interview that was developed specifically for use in the current study. RPM3 stands for responding, preventing, monitoring, mentoring, and modeling - aspects of parenting endorsed by the National Institute of Child Health and Human Development (NICHD) for optimal parenting practices (Borkowski et al., 2002). The interview was constructed to
evaluate fathers’ beliefs and behaviors in each of the five categories in order to assess their mental model of parenting. The first five questions in the interview correspond to general information about the roles, responsibilities, and beliefs surrounding fatherhood, while subsequent sections are devoted specifically to the five RPM3 categories. The entire set of interview questions is listed in Table 1.

Questions evaluating how fathers responded to their child included asking how they reacted to their children’s actions and behavior, as well as how they believe babies communicate. The fathers’ ability to prevent adverse situations involving their children was probed by asking about the fathers’ plans for intervening with problems they potentially foresaw occurring in their children’s lives. Fathers were asked how they spent time with their children and how well they knew them to appraise their knowledge of their children’s environment and surroundings and to assess their levels of monitoring. The section on mentoring assessed the level to which fathers supported and encouraged their children with questions such as, “What are some things that you hope to do as your child grows up in order to be an important person in her life?” The final section of questions aimed to see how fathers modeled their own behavior to provide consistent and positive examples to their children. They were asked to evaluate their own parenting with questions such as, “What are some things that you would like to change about your own fathering?”

Fathers were evaluated regarding the extent to which they demonstrated thoughts surrounding each of the RPM3 components, as well as how well they were able to elaborate upon these ideas. Although the interview questions were designed to primarily assess one of the components, each question was scored from 0-2 for responding, preventing, monitoring, mentoring, and modeling. That is, if a response to one of the questions about responding reflected preventing, it was scored as such. A score of 0 indicated the absence of thinking regarding the component while a score of 1 indicated that the father addressed the issue to some degree. Fathers were given a score of 2 if they indicated obvious thinking surrounding the issue either through extensive elaboration or by giving a coherent and clear picture of how they planned to accomplish their parenting goal. Each RPM3 component was summed across the 19 questions, so that each subscale had a possible range from 0-38. Fathers with higher scores on each of the metaparenting subscales were expected to have more comprehensive, complete, and thorough working models of parenting. Inter-rater reliability was established above 80% for each of the five RPM3 subscales (α = .83-.94). After reliability was established, 10% of the interviews were double coded to ensure consistency.

Parenting outcomes. Biological and social fathers in the Notre Dame Fathers’ Project were interviewed at 4 time points over the first 2 years of their children’s lives—at 6, 12, 18 and 24 months. For the current study, inter-individual differences were examined using an aggregate score derived from the fathers’ mean scores on measures of fathers’ parenting stress, parenting style, knowledge of child development, and child abuse potential over the 12 and 18 month data. An aggregate score was used to increase the sample size as some fathers were missing data at various time points or were not
### Table 1

#### RPM3 Interview

<table>
<thead>
<tr>
<th>Subscale</th>
<th>Question</th>
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<tbody>
<tr>
<td><strong>Responding:</strong></td>
<td></td>
</tr>
<tr>
<td>1.</td>
<td>Please describe what it means for you to be a father:</td>
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<td>2.</td>
<td>How do you think you developed these ideas?</td>
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<td>3.</td>
<td>What are some of the responsibilities that you now have as a father that you didn’t have before?</td>
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<td>4.</td>
<td>What do you feel are the most important things a father can do for his child?</td>
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<td>5.</td>
<td>Can you tell me a few specific ways that you father your child?</td>
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<td>6.</td>
<td>Have you ever seen your child doing something new? What do you do in situations where your child is doing something new?</td>
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<td>7.</td>
<td>When your child does something that you don’t want him/her to do, how do you handle the situation?</td>
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<td>8.</td>
<td>How do you think babies communicate?</td>
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<td><strong>Preventing:</strong></td>
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<td>9.</td>
<td>What are some problems that you could possibly foresee occurring in your child’s life?</td>
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<td>10.</td>
<td>As a father, what do you think you’ll do about these problems?</td>
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<td><strong>Monitoring:</strong></td>
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<td>11.</td>
<td>What kinds of things do you think a father should do when spending time with his child?</td>
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<tr>
<td>12.</td>
<td>How well do you know your child? How do you see this changing as your child grows older?</td>
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<td><strong>Mentoring:</strong></td>
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<td>13.</td>
<td>Describe how you see your relationship with your child developing as he/she grows older.</td>
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<tr>
<td>14.</td>
<td>What are some things that you hope to do as your child grows up in order to be an important person in your child’s life?</td>
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<tr>
<td>15.</td>
<td>How do you think that children learn things?</td>
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<td><strong>Modeling:</strong></td>
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<tr>
<td>16.</td>
<td>What are some things that your father did that you want to do for your child?</td>
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<tr>
<td>17.</td>
<td>What are some things that your father did that you don’t want to do with your child?</td>
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<tr>
<td>18.</td>
<td>What are some things that you would like to change about your own fathering?</td>
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<tr>
<td>19.</td>
<td>What are some of the things that you think make you a good father?</td>
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</table>
recruited for the study until the 18 month interview. High correlations between the time points were found for parenting style, \( r = .73 \); \( p < .01 \), knowledge of child development, \( r = .51 \); \( p < .01 \), abuse potential, \( r = .90 \); \( p < .01 \), and parenting stress, \( r = .77 \); \( p < .01 \). Therefore, fathers who had high scores tended to remain high across time and the aggregate mean was likely a good representation of their true score. In addition, longitudinal data analysis on this sample did not identify significant mean changes in these parenting areas over time (Howard, 2006).

**Parenting stress.** The Parenting Stress Index – Short Form (PSI) is a 36-item scale designed to assess the constructs of difficult child temperament, dysfunctional parent-child interaction, and parental distress (Abidin, 1995). Item responses are on a 5-point Likert-type scale ranging from “strongly agree” to “strongly disagree” for such questions as “I feel trapped in my responsibilities as a parent” and “My child smiles at me as much as I expected.” Higher scores represent a lower degree of stress. The full scale has demonstrated both high test-retest reliability (\( r = .84 \)) and internal reliability (\( r = .91 \); Abidin, 1995). In the present sample for fathers at the 12 month assessment, Cronbach’s alpha for the entire measure was .92.

**Parenting style.** Fathers’ parenting styles were assessed using four subscales of an adapted version of the Adult-Adolescent Parenting Inventory (Bavolek, 1985). The resulting measure, Parenting Styles and Expectations (PSE), measures the father’s perception of his parenting style. Questions pertain to four key influences on effective parenting—empathic awareness, physical punishment, abuse/neglect, and authoritarianism. **Empathic awareness** (8 items) is parents’ ability to identify and respond appropriately to children’s needs. The **physical punishment** questions (11 items) assess parents’ opinions on the use of punishment in parenting. Questions pertaining to parents’ **abuse and neglect** potential (4 items) ask about parents’ agreement with specific parenting behaviors that could be potentially abusive or neglectful. A fourth section asks questions of an **authoritarian** nature (4 items), assessing parents’ attitudes towards rigid and controlling parenting.

The items consist of statements which are rated on a five point Likert-type scale ranging from 1, or “strongly agree” to 5, or “strongly disagree.” The measure was sum scored, with questions being reverse coded so a higher score on the PSE was indicative of a more adaptive, or authoritative parenting style. The internal consistency coefficient was .89, and the test-retest reliability was significant (\( r = .87 \), \( p < .01 \); Bavolek, 1985). In the present sample, Cronbach’s alpha was established at .91 for the full measure.

**Knowledge of child development.** The Knowledge of Infant Development Inventory (KIDI; MacPhee, 1981) is a 14-item scale designed to assess parents’ knowledge of developmental processes and milestones for young children. Questions such as “All infants need the same amount of sleep,” and “One-year-olds often cooperate and share when they play together” are presented on a 5-point Likert scale ranging from strongly
disagree to strongly agree. Higher scores were indicative of greater knowledge of child development. High test-retest reliability ($\alpha = .92$) and internal consistency ($\alpha = .82$) were established (Benasich & Brooks-Gunn, 1996). Cronbach’s alpha in the present sample was .69.

Child abuse potential. Two subscales of the Child Abuse Potential Inventory (CAPI; Milner, 1986), unhappiness and rigidity, were used as an abbreviated measure of abuse potential. The extent to which fathers are unhappy and rigid in their attitudes towards children reflect their psychological distress – a common characteristic of abusive parents. These subscales account for a significant portion of the variance in the entire CAPI, which has been used to successfully distinguish abusive from non-abusive parents. In this portion of the interview, fathers rate whether they agree or disagree with 25 items such as, “Children should always be clean” and “I do not laugh very much.” A total score was then calculated by summing the responses such that higher scores indicated higher levels of unhappiness and rigidity. For the present study, Cronbach’s alpha was established at .81 for the full measure, .62 for unhappiness, and .83 for rigidity.

Design and Procedures

At 6 months, demographic characteristics were assessed. Additionally, information regarding childhood residential status was obtained from the Adult Attachment Interview (AAI) and preparation for parenting was assessed using a question from the Paternal Life History Questionnaire and two questions taken from the RPM3 interview at 12 months. At both 12 and 18 months, fathers were given the RPM3 interview to assess their levels of metaparenting; if the 12 month metaparenting score was missing, the interview completed at the 18 month assessment was substituted. They also completed self-reports of parenting knowledge, parenting styles, parenting stress, and child abuse potential at both 12 and 18 months. Scores on the four parenting measures were aggregated across 12 and 18 months.

Analysis Plan

The first step in data analysis was to describe the primary variables, including father absence and preparation for parenting and to identify interrelationships among these variables and metaparenting, parenting, and key demographic factors such as educational attainment, number of other children, and paternal age and intelligence. Interrelationships among the variables of interest were analyzed using chi-square analyses, correlations, independent samples t-tests, and one-way analysis of variance (ANOVA). These simple analyses assessed whether there were statistically significant differences when comparing whether or not participants: (1) reported father absence during childhood (2) cited positive role models for parenting, (3) had higher levels of metaparenting, and (4) demonstrated greater knowledge of child development, a more authoritative parenting style, and less parenting stress and abuse potential.
The overall model (see Figure 1) was tested using Structural Equation Modeling in order to simultaneously test all of the paths in the model, to evaluate the overall fit of the measurement and structural components of the model, and to account for missing data with full information maximum likelihood estimation (FIML). FIML computes the likelihood function for each case in order to utilize all available data (Bollen & Curran, 2006). Models were evaluated in terms of measures of goodness of fit, parameter estimates, and standard errors using the M-Plus modeling program (Muthen & Muthen, 2001). Generally, a satisfactory fit is indicated by a comparative fit index (CFI) close to one (Bentler, 1990) and a root mean square error of approximation (RMSEA) less than or equal to .08 (MacCallum, Browne, & Sugawara, 1996). Significant parameter estimates and small standard errors likewise indicate good fit.

Results

Descriptions and Interrelationships among Variables

Father absence. Fifty-six fathers were administered the AAI, which was coded to identify father absence. The majority of fathers came from families in which their parents were no longer in a romantic partnership. For instance, 46.4% discussed parental divorce or break-up occurring during early childhood (i.e., before they were 10 years of age); 14.3% during adolescence; and 3.6% during adulthood. Of those who experienced divorce or separation, 22.2% reported some form of joint custody (i.e., they saw their fathers monthly or more often); 48.1% recounted having limited contact with their father (i.e., seeing him only during the summer or on holidays, rarely, or on and off during childhood); and 29.6% had no contact with their father. Regardless of the level of contact, none of the men who experienced divorce or separation during childhood lived with their fathers afterwards. In total, 60.7% of the sample had a nonresident father at some point during their childhood.

Participants who reported non-residential fathers also reported lower levels of educational attainment than fathers who had lived with their own fathers, $\chi^2(2, N = 56) = 10.79, p < .01$. Fathers who reported a non-residential father during childhood also tended to be younger, though this difference only approached significance, $t(54) = 1.88, p = .07$; non-resident: $M = 25.3 (SD = 6.7)$; resident: $M = 28.9 (SD = 7.8)$; however, participants with residential fathers were no more likely to live with their children or be unemployed than those who had non-residential fathers.

Preparation for parenting. The majority of fathers discussed positive parenting role models (62.2%); 20.3% cited negative role models; 28.4% were using current role models to help inform them about parenting practices; 23.0% discussed previous childcare experiences; 27.0% felt they had not been prepared for parenting; and 25.4% cited some “other” type of preparation for parenting. Because these groups were not mutually exclusive, comparisons were not able to be made between groups. For instance, fathers who discussed a positive role model may have also cited a negative role model. As a result, only positive role models were considered in subsequent analyses.
Analyses of group differences revealed that men who identified a positive role model were more likely to reside with their own child, $\chi^2(1, N = 73) = 3.88, p < .05$, be employed, $\chi^2(1, N = 74) = 4.65, p < .05$, and have more education, $\chi^2(2, N = 74) = 10.1, p < .01$ than those who did not cite a positive role model. There was a trend that fathers who cited a positive role model were older than those who did not, $t(72) = -1.98, p = .052$; no role model: $M = 24.7$ ($SD = 8.3$); role model: $M = 28.4$ ($SD = 7.4$), but this difference only approached significance. Fathers who identified positive role models were also more likely to report that they had lived with their father throughout childhood than men who did not discuss positive role models, $\chi^2(1, N = 56) = 7.84, p < .01$.

**Metaparenting.** Fathers’ metaparenting scores were approximately normally distributed in the current sample. Scores for Responding ranged from 2-21 with a mean of 5.96 ($SD = 2.99$). Preventing was the subscale with the lowest scores on average ($M = 3.66, SD = 2.14$, range = 0-12), though Mentoring had the narrowest range of scores ($M = 4.28, SD = 2.51$, range = 0-11). Monitoring scores ranged from 2-16 with a mean of 6.28 ($SD = 2.47$), and Modeling scores tended to be the highest with a mean of 8.99 ($SD = 3.40$) and a range of 2-18.

A series of analyses were conducted to identify demographic variables that were related to each of the five domains of metaparenthood. Different analyses were conducted depending on the variable of interest. For example, t-tests were used to examine differences among resident/non-resident fathers, whether or not fathers reported having a positive role model, and if they were employed. Analysis of variance was used to examine differences based on paternal educational attainment and number of other children. Finally, relationships between paternal age and metaparenthood were examined using correlations.

Fathers who lived with their children had higher scores for responding, $t(71) = 2.57, p < .05$, and mentoring $t(71) = 3.09, p < .01$, than non-resident fathers. Those who cited the influence of positive role models had higher scores for responding, $t(72) = -2.66, p < .05$, and preventing, $t(72) = -2.25, p < .05$, than fathers who didn’t discuss positive role models. Paternal education was positively related to four domains of metaparenting. Fathers who had not completed their high school education had lower metaparenthood mean scores than those who had a high school degree or at least some college education: responding, $F(2,73) = 3.90, p < .05$, preventing, $F(2,73) = 4.11, p < .05$, mentoring, $F(2,73) = 5.79, p < .01$, and modeling, $F(2,73) = 3.96, p < .05$. Fathers who were employed tended to have higher prevention, $t(72) = -3.48, p < .01$, and mentoring scores, $t(72) = -3.15, p < .01$, than those who were unemployed. Fathers’ age was positively associated with mentoring scores, $r(72) = .40, p < .01$, and having one other child was associated with greater modeling, $F(2,54) = 4.97, p < .01$. Monitoring was unrelated to any of the demographic characteristics that were examined.

**Antecedents and Correlates of Metaparenting**

Table 2 shows the means, standard deviations, and correlations among all of the key variables in the model. Responding, preventing, monitoring, mentoring, and mod-
### Table 2

**Correlations among Metaparenting, Parenting, and Covariate Variables**

<table>
<thead>
<tr>
<th></th>
<th>Mean (SD)</th>
<th>Responding</th>
<th>Preventing</th>
<th>Monitoring</th>
<th>Mentoring</th>
<th>Modeling</th>
<th>API</th>
<th>IDI</th>
<th>PSI</th>
<th>PSE</th>
<th>WASI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Responding</td>
<td>5.96 (3.0)</td>
<td>1.00</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Preventing</td>
<td>3.66 (2.1)</td>
<td>.293*</td>
<td>1.00</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Monitoring</td>
<td>6.28 (2.5)</td>
<td>.310**</td>
<td>.055</td>
<td>1.00</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Mentoring</td>
<td>4.28 (2.5)</td>
<td>.384**</td>
<td>.319**</td>
<td>.084</td>
<td>1.00</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Modeling</td>
<td>8.99 (3.4)</td>
<td>.396**</td>
<td>.323**</td>
<td>.134</td>
<td>.262*</td>
<td>1.00</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>CAPI</td>
<td>6.65 (3.7)</td>
<td>-.211*</td>
<td>-.127</td>
<td>.075</td>
<td>-.266*</td>
<td>.169</td>
<td>1.00</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>KIDI</td>
<td>51.14 (5.6)</td>
<td>.187</td>
<td>-.061</td>
<td>.057</td>
<td>.137</td>
<td>.202*</td>
<td>-.105</td>
<td>1.00</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>PSI</td>
<td>148.74 (16.3)</td>
<td>.224*</td>
<td>-.016</td>
<td>-.011</td>
<td>.168</td>
<td>.052</td>
<td>-.477**</td>
<td>.261*</td>
<td>1.00</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>PSE</td>
<td>110.13 (14.5)</td>
<td>.201*</td>
<td>-.125</td>
<td>.169</td>
<td>.323**</td>
<td>-.104</td>
<td>-.452**</td>
<td>.426**</td>
<td>.506**</td>
<td>1.00</td>
<td>—</td>
</tr>
<tr>
<td>WASI</td>
<td>100.97 (16.7)</td>
<td>.350**</td>
<td>.311*</td>
<td>.117</td>
<td>.358**</td>
<td>.254*</td>
<td>-.417**</td>
<td>.506**</td>
<td>.337*</td>
<td>.333*</td>
<td>1.00</td>
</tr>
<tr>
<td>Age</td>
<td>27.02 (7.9)</td>
<td>.209*</td>
<td>.182</td>
<td>.135</td>
<td>.404**</td>
<td>.190</td>
<td>-.205*</td>
<td>-.009</td>
<td>.076</td>
<td>.196*</td>
<td>.397**</td>
</tr>
</tbody>
</table>

*p < .1. *p < .05. **p < .01.
eling scores were generally interrelated, with the exception of monitoring, which was only significantly related to responding, \( r(72) = .31, p < .01 \). In terms of parenting measures, only abuse potential and parenting styles were significantly correlated with any of the RPM3 subscales. With the exception of monitoring, each of the subscales and parenting measures were strongly related to paternal intelligence. Fathers’ age was also related to mentoring, \( r(72) = .40, p < .01 \), and marginally correlated with responding, \( r(72) = .29, p = .07 \); abuse potential, \( r(72) = -.21, p = .08 \); and parenting styles, \( r(72) = .20, p = .10 \).

According to the theoretical model (Figure 1), positive parenting role models and childhood residential status were hypothesized to be antecedents of metaparenting whereas parenting knowledge, style, stress, and abuse potential were expected to be correlated with fathers’ metaparenting. Paternal age, intelligence, and number of other children were included in the models as covariates because the pattern of correlations had suggested that these variables were related to many of the variables of interest. The conceptual model presented in Figure 1 was tested using structural equation modeling (SEM) in M-Plus (Muthen & Muthen, 2001). One distinct benefit of using SEM to analyze the data was that metaparenting could be modeled as a latent construct indicated by the five RPM3 subscales. The initial structural model included father absence and positive role models as predictors of the latent metaparenting construct; paternal age, intelligence, and number of other children were included in the model as covariates. The model also included paths for predicting each of the four parenting variables from the metaparenting construct.

Fit indices suggested that the model fit the data adequately (CFI = .85; RMSEA = .07); however, parameter estimates and factor loadings suggested that the model could be improved in order to more accurately represent the data. There appeared to be a problem with the monitoring variable, as its factor loading (.126; ns) was considerably lower than those for the other RPM3 components, which had loadings ranging from .42 to .63. In terms of the rest of the model, there were many non-significant parameters. Paternal absence did not predict metaparenting, but was negatively correlated with reports of positive role models, \( \beta = -.34, p < .01 \). The latent construct was only related to abuse potential, \( \beta = -.39, p < .01 \), and parenting styles, \( \beta = .34, p < .01 \). Paternal age and number of other children was unrelated to metaparenting, but intelligence predicted the latent construct, \( \beta = .49, p < .01 \). The full model is presented in Figure 1.

A simplified model was tested in order to isolate the key variables of interest and to remedy the problems in the original model. Since paternal absence, parenting stress, and knowledge of infant development were unrelated to any of the variables in the model, these were omitted in the next model. Also, monitoring was removed from the metaparenting factor since it had a low factor loading and correlations which suggested that it was unrelated to parenting. This model contained a higher proportion of significant paths and had a slightly better fit. The CFI improved slightly to .90, and the RMSEA remained the same at .07. Given the small sample size and the complexity of the model, these indices of fit are acceptable, especially given that the individual paths in the model highlight significant relationships that are consistent with theory. The final model is presented in Figure 2.
Omitting monitoring from the latent factor resulted in higher factor loadings for the remaining four subscales, ranging from .54-.64. Positive role models and intelligence predicted metaparenting such that men who had discussed having a positive role model had higher metaparenting, $\beta = .46$, $p < .01$, and fathers with higher levels of intelligence also had higher levels of metaparenting, $\beta = .67$, $p < .01$. In terms of parenting, metaparenting was related to abuse potential and parenting styles. Fathers who engaged in more metaparenting reported lower abuse potential $\beta = -.73$, $p < .01$, and more authoritative parenting styles, $\beta = .62$, $p < .01$. Paternal age and number of other children remained in the model as covariates, but were unrelated to metaparenting.

**Discussion**

The role that fathers take in parenting may be closely tied to how they view themselves as a parent, their identity hierarchy (Maurer et al., 2003), which is built partly on past experiences such as childhood relationships with their own parents (Daly, 1993; Krampe, 2003). Past research has suggested that men whose fathers lived with them during childhood were likely to have higher quality parent/child relationships and more interactions with their children (Doherty et al., 1998; Yeung et al., 2001). Consequently, these fathers may have possessed a more salient parenting identity, or working model

![Figure 2. Final model.](image-url)
of parenting, as a result of having a positive parenting model to emulate (Bandura, 1989; Bowlby, 1982; Chodorow, 1978; Daly; Martin, Ruble, & Szekrybalo, 2002).

This project was built around an important assumption: A father’s working model of parenting should be evident through his level of metaparenting, or mental plan for parenting. In turn, this mental plan will enhance parenting practices and subsequent child development (Borkowski et al., 2002) as a result of a well-integrated social-cognitive construct of parenting (Hawk & Holden, 2006). The current study evaluated how father absence during childhood and positive parenting role models may have helped fathers to construct more comprehensive parenting plans and better prepare men for the demands of parenting.

**Paternal Identity Development: Positive Role Models and Father Absence**

Over half of the sample reported experiencing the divorce or separation of their own parents during childhood or adolescence, a percentage slightly higher than the estimation for the population during the period when the majority of fathers in the current study would have still been living at home (40% to 50%; Ahlburg & De Vita, 1992). None of the participants resided with their fathers after their parents separated or divorced, a pattern that has been consistently seen in the divorce literature (Dunn, 2004). Father absence was not predictive of the next generation of fathers’ residential status with their own children; but given that children were under 24 months of age, changes in residential status are likely to occur for many families at some point in the future. Men whose fathers resided with them during their childhood were more likely to identify a positive role model for parenting, supporting the notion that having a residential father during childhood increases the likelihood that men will feel prepared for parenting.

Participants who had experienced parental divorce or separation during childhood were younger at the birth of their child and had lower educational attainment. These demographic characteristics are consistent with past research which has demonstrated negative outcomes for men who grew up in fatherless homes (Denton & Kampfe, 1994; Heimer, 1996; McLanahan & Sandefur, 1994). In contrast, fathers who identified positive role models were older, had more education, and were more likely to be employed. Therefore, father absence during childhood and the absence of a positive parenting role model were associated with demographic characteristics that may put fathers at risk; being younger, unemployed, and with a lower educational attainment may make fathers feel less prepared for parenting (May, 1982) and may make it difficult for fathers to provide the emotional and financial resources necessary for high quality parenting that will benefit their children (Mosley & Thomson, 1995; Powell, Steelman, & Carini, 2006; Yeung et al., 2001).

The inverse relationship between father absence and positive parenting role models is most likely a result of residential fathers having increased quality and quantity interactions with their children, whereas non-resident fathers are more likely to have strained relationships with their children (Ahrons & Miller, 1993; Doherty et al., 1998;
Radin & Sagi, 1982; Yeung et al., 2001; Zill et al., 1993). These experiences may have affected paternal identity development and the development of a working model of parenting as a result of men emulating their own father in their parenting role (Daly, 1993). Men with a positive role model to emulate may be more successful in parenting due to a more salient paternal identity and more developed mental model of parenting. In contrast, those who do not have a parenting role model, or felt their own father was a negative role model, may have fewer ideas about parenting, a less developed mental model, and fewer positive behaviors to emulate.

**Antecedents and Correlates of Metaparenting**

More optimal demographic characteristics were associated with higher levels of metaparenting in terms of 4 of the 5 components; monitoring was not related to any variables of interest. Responding, preventing, mentoring, and modeling were suggestive in the coding schema of more direct interaction with children whereas monitoring included more passive involvement such as professing a desire to be in the child’s life. These four metaparenting components were highly interrelated and were associated with more positive demographic characteristics, residential status, and having a positive parenting role model. Fathers who were able to discuss their parenting plans and goals, specifically plans and goals related to more active parent/child involvement, had demographic characteristics that ameliorate parenting and subsequent child outcomes (Mosley & Thomson, 1995; Yeung et al., 2001); however, causality cannot be established. Metaparenting can be active well before the birth of a child (Hawk & Holden, 2006) and may be evidenced by planning for parenting. Men who consciously wait to become fathers until they have reached a certain age or educational level have likely already engaged in metaparenting. In contrast, these demographic factors may also contribute to the quality and extent of metaparenting; being older and having a higher level of education could impact fathers’ capacity for metaparenting. Therefore, demographic characteristics could be explained as either a precursor or an effect of a mental model of parenting.

In the final model, the metaparenting components associated with more active parent/child involvement (responding, preventing, mentoring, and modeling) were indicators of a latent construct. Positive parenting role models and father absence were significantly inversely related such that a father was more likely to have a positive parenting role model if his own father had lived with him continually during childhood; however, positive parenting role models was the only significant predictor of the metaparenting construct in the model. Positive role models as an antecedent of higher metaparenting abilities suggests that the extent to which a father has a mental model of parenting may rely on positive childhood experiences with parenting figures. There is likely a direct relationship between the extent to which fathers metaparent and the prominence of fathering in their identity hierarchy, as it is also probable that a prominence in the hierarchy is developed through positive experiences with parenting figures (Krampe, 2003).
Metaparenting predicted abuse potential and parenting style even when controlling for age, intelligence, and number of children; fathers with higher levels of metaparenting had lower abuse potential and a more authoritative parenting style. Since metaparenting is theorized “to indicate a greater awareness and a more deliberate approach to thinking [about parenting]” (Hawk & Holden, 2006, p. 322), it is not surprising that fathers with higher levels of metaparenting also report more optimal parenting practices. This connection between thinking about parenting and then engaging in appropriate parenting practices is likely to enhance children’s development (Dixon et al., 2005; Knutson et al., 2005). Parenting stress and knowledge of child development were also excluded from the final model because they were unrelated to metaparenting. It may be the case that stress and knowledge are not related to metaparenting because they are less active forms of parenting; however, future studies with larger samples should continue to explore these relationships. These results further support the idea of metaparenting as an active thought process that is highly correlated to parenting behaviors (Hawk & Holden). This cognitive aspect is one that is often excluded from theoretical models, but may offer important insights to the processes related to fathering (Parke, 2000).

Limitations, Future Directions, and Conclusions

The current sample represented a group of men who were diverse in age, ethnicity, and educational attainment; however, they had higher levels of involvement with their children than non-participants. This bias toward fathers who are more involved with their children is pervasive in studies of fathers (Coley & Hernández, 2006). Given that this was the case in the present study, our findings can only be generalized to biological and social fathers who are at least moderately engaged in their children’s lives.

The current study explored a single aspect of fathers’ childhood relationships, the residential status of their own father. Past research has focused on non-residential fathers and their children in terms of economic support, frequency of contact, and relationship quality (Dunn, 2004). This study went beyond childhood to assess how residential status impacts children’s ability to parent in adulthood. However, the quality of the father/child relationship could be explained by factors in addition to residential status, such as frequency of contact and the quality of parent/child interaction, which might account for more variance in the relationship between childhood experiences and metaparenting. Furthermore, influences outside of the father/child relationship likely impact paternal identity development. For example, alternative role models, such as stepfathers (Marsiglio, 1992), as well as the gender of role models (Chodorow, 1978), may play integral roles in determining parenting effectiveness.

The metaparenting construct has theoretical merit that is worthy of further exploration. The current study expanded on the original construct as introduced by Holden and Hawk (2003), which has been mainly explored in samples of affluent mothers (Hawk & Holden, 2006), by examining a more diverse group of men. Future researchers could assess how mothers and fathers differ in metaparenting and test rela-
tionships between the existing measures of metaparenting to determine their construct validity. In addition, future work should examine both metaparenting and parenting longitudinally in order to assess whether metaparenting predicts later parenting and supports optimal child development.

In conclusion, this study supported the notion that fathers’ past interpersonal experiences helped them construct working models of parenting that affected their parenting practices. Fathers with positive role models, residential fathers in childhood, and higher levels of metaparenting had demographic characteristics associated with better parenting and child outcomes and higher levels of metaparenting were associated with more authoritative parenting and less abuse potential. Thus, constructing a mental model of fathering appears to be an important aspect of developing constructive and appropriate parenting skills which are crucial for fostering child development.

References


