A Qualitative Case Study: Fathers’ Experiences Massaging Their Infants

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Five first time fathers learned to massage their infants. We aimed to determine what, if any, perceived benefits accrued for fathers who massaged their infants. For three weeks fathers provided infant massage to their infants every night before bedtime and recorded their activities in diaries. Fathers’ experiences were captured through structured interviews and video recordings. Data was analyzed in Atlas.ti and process coding. The results demonstrated evidence that supported attachment theory constructs: awareness, emotional expression, engagement cues, motivation, relationship, and sensitivity. Fathers reported four major benefits to themselves and their infants: relieving infant stress (soothing), relieving mother stress (caregiving), confidence, and contribution. Furthermore, fathers expressed a desire for further access and opportunity for interaction with their infants. Previous articles on infant massage and fathering did not provide a theoretical framework to view the results. This article confirmed attachment theory as an appropriate lens and as a reference for future studies.

In the past, infants’ mothers or other women caregivers have provided most of the infant caregiving (Bailey, 1994; Hossain, Field, Pickens, Malphurs, & Del Valle, 1997). Yet, most fathers (91%) have been involved with the mothers at the time of the babies’ births (Gottman, Gottman, & Shapiro, 2010). Fathers who had “close physical contact” interacted more with their infants (Parke & Swain, 1977).

In addition, fathers who saw infant caregiving activities demonstrated mirrored these behaviors with their own infants (Parke, Hymel, Power, & Tinsely, 1980; Harrison, Magille-Evans, Benzies, Gierl, & Kimak, 1996). Fathers who were present and active in the lives of their children provided support contributing to the emotional development of their children by being emotionally and physically available and engaged (Parke, 1996). Opportunities are missed when fathers are not included in the research articles on parenting and infant caregiving. Nearly 82% of non-married fathers are involved with the mothers at the time of the babies’ births (McLanahan, Garfinkel, Reichman, Teitler, Carlson, & Audigier, 2002), however, less than 50% are involved by the time they enter pre-school (Furstenburg & Harris, 1993).
Currently 91% of married fathers are present at the birth, an increase of 90% since the early 1960’s (Gottman, Gottman, & Shapiro, 2010). Father involvement with the mother at the time of the infant’s birth provides a window of opportunity to support the relationship of fathers with their infants. In addition, parental [fathering] competence contributes to increased outcomes of child well-being and can increase the well-being of fathers and infants (Coren, 2005). Infant massage increased parental competency, frequency, and quality of caregiving activities by fathers with their infants (Cullen, Field, Escalona, & Hartshorn, 2000; Scholz & Samuels, 1992).

The centrality of touch to positive developmental outcomes is illuminated by attachment theory. Accordingly, attachment theory provides support for researching infant massage. Attachment theory evolved during the 1940s when a developmental psychoanalyst, John Bowlby, wrote a provocative theory article indicating family research would provide better outcomes when it explored children’s problems by examining the parenting of the child and the origination of parents’ skills (Bretherton, 1992). Bowlby (1969/1982) examined the relationship of the child to the mother by the absence or interruption in the mother and child bonding process. Bowlby concluded that if infants were to become well adjusted children and adults, they must have a secure relationship with the caregiver.

John Bowlby referred to “attachment” as a process occurring over time whereas “bonding” was an initial connection on which a relationship developed (Bowlby, 1969/1982). Although Bowlby was referring to an emotional attachment, Winkler (2000) postulated that the bonding process begins through basic biological introductions of chemical responses between the infant and the caregiver through the five senses: smell, sight, sound, taste, and touch. As fathers are afforded the opportunity to massage their infants, the senses of smell, sight, sound and touch occur because fathers hold their infants, gaze into their infant’s eyes, and ask their infant’s permission to stroke their infant’s body during massage.

Two current articles reporting results on fathers massaging their infants suggest massage is an effective way to provide fathers an opportunity for more positive interactions with their infants (Cullen et al., 2000, p. 46). Scholz and Samuels (1992) aimed to determine if fathers were more prepared in their role for fathering and if they would increase their interactions with their infants after they massaged their infants. These authors concluded that fathers spent more time taking care of their infants after they had massaged their infants.

These two aforementioned articles (Cullen et al., 2000; Scholz & Samuels, 1992) had a few limitations. There was no theoretical framework in which to justify and discuss the research questions and results. Furthermore, the articles did not provide a protocol of the class taught to the fathers. In addition, these fathers were recruited from a “father’s class,” and there was no discussion in the articles as to whether or not these designs would allow results to be generalized to real life situations (Isaac & Michael, 1997). In this article, attachment theory provides a framework to view the perceived benefits of father’s massaging their infants and to provide in detail the information not noted in the two prior studies.

Promoting early interventions [infant massage] when an infant is first born and when the parents [fathers] are first setting up their caregiving routine directly influences the family system (Belsky, 1981). Infant massage increases parental competency, frequency, and quality of caregiving activities by fathers and mothers with their infants (Cullen et al., 2000; Ferber, Feldman, Kohelet, Kuint, Dollberg, Arbel, & Weller, 2005; Onozawa, Glover, Adams, Modi, & Kumar, 2001; Pardew, 1996; Scholz & Samuels, 1992). Infants who were massaged increased initiation and interactions toward the fathers, thereby reinforcing the fathers’ continued interaction with their infants (Cullen et al., 2000; Scholz & Samuels, 1992).

We aimed to expand the knowledge base regarding fathers who massaged their infants by exploring the experiences, attitudes, and perspectives of such fathers. We asked fathers, “What, if any, emotional and physical benefits do you perceive from massaging your infant?”

**Method**

Five first time fathers were taught to massage their babies by a certified infant massage instructor (CIMI) and according to a prescribed protocol.
The five fathers in this case study are the unit of analysis as, according to Miles and Huberman (1994), “being studied as a phenomenon occurring in a bounded context, is the unit of analysis” (p. 24-25). The recruitment process was extensive and encompassed numerous private and public agencies throughout the local area. The data from the fathers was collected in a demographic survey, structured interviews, self-report diaries, video recordings and observations. The demographic survey collected information about the fathers such as age, marital status, race, education level, and annual income. Data from the demographic survey provided descriptive analysis.

In the structured interviews fathers were asked to describe their perceptions and perspectives of the infant’s temperament, their daily routines and interactions with their infants, their experiences in massaging their infants, what benefits they perceived, if any, of massaging their infants, how massage was beneficial to themselves, what they enjoyed most or least, what was important to them about massaging their infants, whether or not they intended to continue massaging after the study ended, and what their reactions were and what they learned about themselves when they reviewed both of the videos. Responses from the first interviews were compared with the second interviews to note any changes in their responses. Fathers were asked to report in the activity diary how long the infant was massaged, what time of day the infant was massaged, and what body parts were massaged. Fathers made these reports once a week for three weeks.

Data Collection

Data collection took three stages. In stage 1, the infant massage demonstration was presented, and then the father was videotaped massaging his infant. Afterwards, the father was interviewed. In stage 2, fathers massaged their infants daily on their own and recorded these activities in the activity diary once a week for three weeks. At the end of three weeks, stage 3, the diaries were collected and fathers were videotaped again. Fathers then reviewed both videotapes and their responses were collected in a final interview.

Sample

The fathers were screened to determine if they were first time fathers, whether or not the infant was under six months of age, and whether they were living with the mother at the time of the birth and during this study. The fathers who participated were all educated with at least some college. Two of the fathers were new college students, three were college graduates, two were full time employed professionals, and one had returned for a graduate degree. Only two of the fathers reported an income above $25,000, and the other three reported an income below $25,000. Two of the fathers were African American and the other three were White. Each differed in age, education, and socioeconomic status. One African American father was past the age of 30, employed full time with an income of $60,000+, and had a college education, whereas the other African American father was below age 25, a new college student and had an income below $25,000. One of the White fathers was past the age of 30, in graduate school, and had an income below $25,000. The other father, past the age of 25, was fully employed, and had a college degree and an income of more than $25,000. The younger father was under the age of 25 and was a new college student with an annual income under $25,000 (see Table 1).

Procedural Analysis

The data gathered from the structured interviews, the response interviews, and the author’s responses to the videos were uploaded as primary document files into ATLAS.ti. The document files were uploaded as described in the book, “Qualitative Data Analysis with ATLAS.ti” (Friese, 2012). ATLAS.ti is a visual analysis tool developed to handle large amounts of qualitative (text, graphics, audio and video) data. This tool supports researchers in developing primary elements in their data and interpreting the meaning of the data into useful “knowledge” (Muhr & Friese, 2004). ATLAS.ti is a visual analysis tool developed to handle large amounts of qualitative (text, graphics, audio and video) data. This tool supports researchers in developing primary elements in their data and interpreting the meaning of the data into useful “knowledge” (Muhr & Friese, 2004). ATLAS.ti works well with qualitative data, which eludes traditional quantitative analysis. ATLAS.ti is not limited to content or subject matter from any discipline (Muhr & Friese).
did not fit the segment a new code was generated. NCT analysis is fluid and dynamic. The data coding was circular from the beginning of the analysis and continued throughout the coding process: recoding, comparing and contrasting the data segments, then noticing patterns and relations of data segments and determining what the theoretical coding implied. The data was analyzed in three iterations. In the first iteration data was reviewed by a surface content analysis, initial coding and process coding. The second iteration described pattern variables, In Vivo and pattern coding. Finally, the third iteration resulted in theoretical coding based on the constructs of attachment theory.

Internal Validity

The qualitative design of this work was rigorous based on accepted standards and practices accepted by professional researchers in the field of social sciences. Credibility (internal validity), transferability (reliability), dependability (reliability), and confirmability (objectivity) were met through qualitative strategies. To address credibility and transferability, methodological strategies were used throughout the research process.

Table 1

Demographic Data

<table>
<thead>
<tr>
<th>Participants</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
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<td>22</td>
<td>36</td>
<td>27</td>
<td>22</td>
</tr>
<tr>
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<td>Married</td>
<td>Married</td>
<td>Living w</td>
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<tr>
<td></td>
<td></td>
<td>Partner</td>
<td></td>
<td></td>
<td>Partner</td>
</tr>
<tr>
<td>Race</td>
<td>White</td>
<td>Black</td>
<td>Black</td>
<td>White</td>
<td>White</td>
</tr>
<tr>
<td>Level of Education</td>
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<td>College</td>
<td>College</td>
<td>College</td>
<td>College</td>
</tr>
<tr>
<td>Annual Income</td>
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<td>$0-$25,000</td>
<td>$60,000+</td>
<td>$25,001-$60,000</td>
<td>$0-$25,000</td>
</tr>
<tr>
<td>Infant Sex</td>
<td>Male</td>
<td>Female</td>
<td>Male</td>
<td>Male</td>
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These strategies were triangulation, member checking, and transparency (Patton, 2002). Detailed descriptions, purposive sampling, analytic memo writing, code-recode strategies, triangulation of the data, and reflexivity enhanced the dependability and confirmability in the research process (Anfara, Brown, & Mangione, 2002). A rigorous design and formalized data analysis process provided a credible research platform for future father and infant studies, both qualitative and quantitative.
In this way, relationships between fathers and their infants were developed. Fathers expressed approval and acceptance of their infants. Finally, fathers demonstrated sensitivity to their infants' emotional and physical needs by responding to their infants' cues. Fathers reported they heard their infants communicating through the sounds of their voices and their body movements and determined when to massage and when to stop massaging, and even what body part the infant most enjoyed having massaged.

Benefits

Fathers described in detail the benefits of massaging their infants both for themselves and for the infants. The benefits fathers reported were grouped into four categories: relieving infant stress (soothing), relieving mother stress (caregiving), confidence, and contribution. Fathers described massaging their infants as calming them down and indicated the infants were relaxing while being massaged. Fathers expressed that they liked being able to soothe and comfort their infant when the infant was crying. According to Robson and Moss (1979), being able to soothe their infants contributes to ward feelings of effectiveness as a parent.

Fathers reported feeling increased confidence in their skills and abilities to interact with their infant. Fathers stated they were making a contribution to their infants by massaging them. Fathers noted their responses to their infants were different after watching the before and after video recordings. They stated they had developed competence and confidence in massaging their infants (see Table 3).

Fathers expressed their desire to spend more time with their infants, relieve the mothers' caregiving activities, and contribute to the parenting process. Fathers identified the challenge of finding opportunities to be with their infants yet, when the opportunity was provided to enroll and participate in this study, they rose to the occasion and reported the many benefits of having massaged their infants. Fathers saw massage as an opportunity to play, bond, and spend time with their infant on a regular basis, and indicated a motivation to continue the practice after the research ended.

Results

Results of the data analysis are classified into two overarching themes: attachment theory constructs and benefits. The results demonstrated evidence that supported attachment theory constructs: awareness, emotional expression, engagement cues, motivation, relationship, and sensitivity. Fathers reported four major benefits to themselves and to the infants: relieving infant stress (soothing), relieving mother stress (caregiving), confidence, and contribution. Furthermore, fathers expressed a desire for further access and opportunity for interaction with their infants. Table 2 shows the major findings based on attachment constructs and identifies the data source from which they were identified. Findings 2, 3, and 7 were coded by observations of both of the five minute recordings. The remaining findings were self reported in the data by the fathers.

Attachment Constructs

Fathers reported awareness of enjoyment in contributing to their infants’ well-being. They made interpretations of what they believed their infants were communicating to them and descriptions of what they felt about their infants’ responses. Fathers identified emotions in both themselves and their infants after massaging their infants. Fathers described their own emotions when responding to the questions about their infant and their experience of massaging their infant.

Fathers also demonstrated engagement cues during the two massages that were videotaped. In the final video, four of the five fathers and infants held eye contact frequently and for long periods of time, and sometimes there were uninterrupted gazes. The fathers also initiated conversations throughout the final massage. Fathers reported they were motivated to continue massaging their infants after the study was completed because they enjoyed contributing to the care of their infant and giving the mother some relief.

Fathers valued having the opportunity to spend time with their infants. Fathers reported that finding an opportunity [accessibility] to spend time with their infants was challenging. They reported that providing infant massages gave them accessibility to the infant and they enjoyed the opportunity for one-on-time.
Furthermore, fathers reported they believed infant massage would contribute to their infants’ development and helped them sleep better.

In summary, observations of the videos revealed notable differences between both the fathers’ and the infants’ responses from the beginning of the three weeks to the end of the three weeks. Fathers initiated the massage quicker the second time with assurances, responsiveness, and communication, both verbal and non-verbal, with the infant. By the end of the three weeks, the infants responded to the fathers’ initiation by mirroring the fathers’ emotional behaviors.

In conclusion, the reported data demonstrated evidence of the following attachment constructs: awareness, emotional expression, engagement cues, motivation, relationship, and sensitivity. Additionally, expressions of parental confidence and competence were benefits for fathers who massaged their infants. Attachment theory is an appropriate theoretical framework to study the father-child dyad.

**Discussion**

An article reporting results of a longitudinal study conducted by Grossman, Grossman, Fremmer-Bombik, Kindler, Scheurer-English, and Zimmerman (2002) on fathers who played with their children concluded that attachment theory might not be the appropriate lens in which to view the father-infant dyad. The first author concurred with this conclusion prior to the results of this study because during the last 100 years, the articles on attachment research focused solely on mothers and their infants beginning with Harlow’s research with monkeys (Harlow, 1959). No fathers had been included in any of the studies that explored and refined attachment theory. It did not seem plausible that father bonding would occur under any of the same circumstances as it had with mothers. It was this first author’s bias that future studies would need to be done using grounded theory to develop and refine a new theory exploring fathers’ interactions with their infants. However, the results reported in this article did not support my assumptions.

Attachment theory is the identified framework to view the results reported in this article, attachment theory constructs were used during theoretical analysis, and attachment theory was implicated in the theoretical findings. Conceptually, attachment is described as “the mother’s [caregiver’s] ability to attune her interactions to the needs, signals, and communications of the child” (Vereijken, Rikson-Walraven, &
Attachment Concepts And Assumptions

<table>
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<tr>
<th>Concepts</th>
<th>Assumptions</th>
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<tr>
<td>1. Awareness</td>
<td>Attachment</td>
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<td>2. Emotive</td>
<td>Attachment</td>
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<td>3. Engagement</td>
<td>Bonding</td>
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<td>4. Motivation</td>
<td>Attachment</td>
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<td>5. Opportunity</td>
<td>Attachment</td>
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<td>6. Relationship</td>
<td>Attachment</td>
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<tr>
<td>7. Sensitivity</td>
<td>Attachment</td>
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<tr>
<td>8. Learning/Insight</td>
<td>Attachment</td>
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Kondo-Ikemura, 1997, p. 41). Specifying the definition of attachment in even more detail, attachment is defined as a parent/caregiver’s “sensitivity” and “an awareness of the child’s verbal and non-verbal cues, who recognize and accurately interpret their children’s needs and wants” (Wallace, Roberts, & Lodder, 1998, p. 900). In other words, fathers who became “sensitive” to the infant’s needs were able to develop the skills to read the infant’s body language and emotional expression and to become responsive to these non-verbal cues. The engagement behavior of infant and care-giver involves specific behaviors for each partner. For the fathers in this study, behaviors demonstrated sensitivity to infant cues, responsiveness to infant distress, and perhaps fostering of social, emotional, and cognitive growth in the infant.

Fathers who massaged their infants perceived benefits of massaging the infants both for themselves and for their infants. The benefits they reported for the infants were that they slept better, were calmed, and enjoyed being massaged. The benefits fathers reported for themselves were that they enjoyed calming their infants down, enjoyed the opportunity to spend time with their infants, became more skilled in interacting with their infant, felt more confident and competent massaging their infants, and allowed them the opportunity to provide the mother with some time off from her caregiving. The attachment concepts highlighted in Table 4 are supported by the assumption that fathers who massaged their infants benefited greatly from the experience and demonstrated attachment (engagement and bonding) behaviors with their infants.

Fathers demonstrated an awareness and understanding of the significance of the time they spent with their infants and identified their interactions as attachment and bonding (Bowlby, 1969/1982; Winkler, 2000). Clulow’s article (2010) states that attachment and bonding require opportunities to develop stable relationships with a significant caregiver (Clulow, 2010). Fathers expressed a need for an opportunity to spend time with their infants and, when provided this opportunity, expressed enjoyment and motivation to continue massaging their infants after the study ended, supporting prior research articles that indicated fathers expressed more enjoyment after massaging their infants (Cullen et al., 2000). As prior research articles indicated, fathers who enjoy fathering are more likely to stay involved with their children throughout their lives (Harper, 1980; Harrison et al., 1996).
Fathers demonstrated engagement cues, eye contact, and verbal exchanges (Bowlby, 1969/1982; Schneider-McClure, 1989) with their infants, as well as sensitivity in their responses to their infants’ communication during the massages by adjusting time spent massaging, technique and allowing the infant to determine which body part they desired to have massaged sensitivity (Vereijken et al, 1997; Wallace, Roberts, & Lodder, 1998). Fathers interpreted their infant’s body language and vocal expressions as the infants enjoying their touch and being soothed by their massages. Research articles published by Harlow in 1959 reported that baby monkeys were soothed by a cloth mother when she was near (Harlow, 1959). Fathers can provide this same effect on their infants and this shows the importance of a father’s contribution in the life of his infant. This sensitivity is defined in attachment theory as the ability to accurately interpret the infant’s needs and wants by reading the infant’s verbal and non-verbal cues (Wallace et. al., 1998, p. 900). According to Worobey, Laub, and Scholmoeller (1983), being able to soothe the infant promotes attachment and provides a technique for fathers to cope with a crying infant.

Finally, when reviewing their own videotapes, fathers expressed how proud they were of their infants and said that they could see they were more confident in the final video and had a sense of competency in handling their infant (Scholz & Samuels, 1992; Cullen et al., 2000). Fathering competency contributes to increased outcomes of child well-being (Coren, 2005), and infant massage might support sustained father involvement (Cheng, Volk, & Marini, 2011). The results in this article confirmed the appropriate fit of attachment theory as a lens to view fathers’ experiences massaging their infants and documented the behaviors demonstrating the attachment and bonding processes.

Limitations and Future Research

There were a few limitations to the study. The sample size was small with five fathers, and it is notable that a larger sample size, with a wider range of characteristics, would increase the credibility in generalizing results to other populations of fathers. This sample size was not heterogeneous. However, there was a 100% completion rate and 0% attrition rate, and a small sample size provided saturation of the data. It is common for qualitative researchers to use small, purposive samples to capture unique details and noteworthy meanings (Berg, 2007).

Additionally, it was imperative to provide precise definitions of the codes as they were developed for clarity in the data and to support the development [power] of the coding process (Friese, 2012). This data collection occurred during a three week window. Further exploration is warranted to confirm these findings in a larger sample size which examines the experiences of fathers over the long term.

This study supports attachment theory as a framework to study the father and infant dyad, provides a credible platform for future research to explore how fathers impact child outcomes and the importance of fathers having access to their infants early in their lives, and demonstrates that fathers are motivated to impact the relationship with their infants and the relationship with the mother. Previous articles on infant massage studies failed to provide a theoretical platform in which to view the lens or the impact of infant massage on the infant or the caregiver. This is the first known infant massage article to present a theoretical platform on which to analyze the data and confirm attachment theory as an appropriate lens to examine fathers massaging their infants. In addition, this was the first known infant massage article to provide operational definitions of the attachment constructs and describe in explicit detail the infant massage protocol, thus suggesting a reference for future studies.

References


