Work Safety During Early Fatherhood

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ABSTRACT

Fathers are increasingly expected to engage in infant care. The early postpartum period has been described as a time when work-family conflict, lack of sleep, and fatigue are prominent themes. Research has demonstrated that these themes can have a deleterious effect on work safety. Lack of sleep and fatigue have been linked to workplace accidents, yet few studies have specifically investigated work-family conflict, sleep, and fatigue among men with infants. The need exists to specifically study and measure work-family conflict, sleep deprivation, and fatigue in relation to early fatherhood. Such research could have a direct effect on occupational health nursing practice.

During the past decade, fathers have been increasingly recognized for the contributions they make to family life, and they have been increasingly expected to engage in more parental activities. Currently, however, a paucity of research exists investigating how working fathers with infants, known as early fatherhood, balance work and family.

Researchers have found a trend for fathers to engage more in infant care (Bielby & Bielby, 1988; McVeigh & St John, 2003). According to the Australian Bureau of Statistics (ABS), fathers have reported engaging in 28 hours of direct infant care per week (ABS, 2006). This is in addition to the long work hours of early fathers. In Australia, the ABS (2006) highlighted that, on average, fathers worked 43 hours per week, with 33% working more than 50 hours and 16% working 60 hours or more. In relation to early fatherhood, Tanaka and Waldfogel (2007) recently reported similar results, with 61% of fathers with babies working between 30 and 50 hours and 29% working more than 50 hours. Therefore, time committed to infant care might have health consequences for these fathers. For example, the expectation for long work hours and “being there” for the infant might create a degree of work-family conflict for fathers (Glezer, 2004). Investigations of fathers conducted by Perry-Jenkins and Crouter (1990) and Yeung, Sandberg, Davis-Kean, and Hofferth (2001) revealed an inverse relationship between the need to provide financial security for their family and the time they engaged in household tasks.

In early fatherhood, lack of sleep and fatigue also appear to be prominent concerns, with studies reporting that men expressed tiredness (Dye, 1998), stress (Russell et al., 1999), changes in mood (Newburn & MacMillan, 1998), and a lack of vitality (Gjerdingen & Center, 2003). According to Long and Johnson (2001), the outcomes of caring for a newborn baby are lack of sleep and exhaus-
These outcomes have the potential to affect work performance. As one father in a study by St John, Cameron, and McVeigh (2005) described, “It’s just night after night. You just really need a good night’s sleep to perform work . . . I think the whole pressures of work, the family, demands, financial position are all catching up on me” (p. 7).

Fatherhood, in relation to work safety, has clinical significance to many health professionals, including occupational health nurses. According to the ABS (2000), the rate of work injuries was somewhat higher for fathers than for men in general (64 vs. 60 per 1,000). No recent research has shown why this rate is higher. However, one reason might be that little research and scholarly discussion on the problems faced by early fathers who work and engage in parenting have been published. For example, research has demonstrated that sleep deprivation, fatigue, and work-family conflict can have deleterious effects on health and safety at work. During early fatherhood, engaging in parenting as well as paid work might predispose men to accidents and injuries.

**REVIEW**

This review sought research findings focused on the specific impact of early fatherhood on work-family conflict, sleep, fatigue, and work safety. Medical, nursing, occupational health and safety, and sociological databases were searched to find relevant published articles. National and international websites were also searched for related information as well as government reports and proceedings. The following key words were used for the comprehensive search: father (including new father, early fatherhood, and fatherhood), sleep (including sleep deprivation and excessive daytime sleepiness), fatigue (including exhaustion and tiredness), safety (including occupational health and safety, work injury, and work safety), and baby (including newborn, postpartum, and child). English and non-English articles, if translated into English, were included, with no limits regarding publication date. Identified articles were summarized, noting author, date, participant characteristics, research design, and findings (Table).

**FINDINGS**

Only 12 studies could be located that investigated fathers and work-family conflict, sleep, fatigue, and work safety. The studies provided a descriptive snapshot of the work-family conflict, sleep, and fatigue experienced by fathers and, in particular, how safety might be influenced by factors outside the workplace. All 12 studies identified sleep or fatigue among fathers, and three of the 12 studies identified work-family conflict among fathers. Seven of the studies investigated men during early fatherhood (1 to 8 weeks postpartum). Of those seven studies, two highlighted the fatigue early fathers experienced in meeting the expectations of work and family; four reported the lack of sleep and fatigue early fathers experienced due to infantile crying; and one identified that early fathers recognized the risk they faced driving while sleep deprived due to infantile crying. The studies provided a compelling reason for early fathers to be considered a distinct group of workers needing to be investigated.

**DISCUSSION**

All of the studies identified sleep and fatigue as issues for early fathers. Research has shown that increasing sleep deprivation and fatigue result in decreased vigilance and psychomotor activity (Dinges et al., 1997; Grandjean, 1979; Heaton, Browning, & Anderson, 2008) as well as alterations in normal decision-making processes (Eastridge et al., 2003; Leonard, Fanning, Attwood, & Buckley, 1998; Sicard, 2001). Consequently, sleep deprivation and fatigue are viewed as risk factors for occupational accidents and have been studied in various occupations, including truck drivers (Howard et al., 2004; Machin, 2005; Masa, Rubio, & Findley, 2000), health professionals (Eastridge et al., 2003; Gold et al., 1992; Puvanendran, Venkatramani, Jain, & Farid, 2005), and shippers (Phillips, 2000; Sanquist, Raby, Forsythe, & Carvalhais, 1997).

Three studies identified work-family conflict as a concern for early fathers. The negative health outcomes of work-family conflict have been well described. Work-family conflict has also been shown to decrease job, family, and life satisfaction (Grande & Cropanzano, 1999); increase psychological strain and distress (Bellavia & Frone, 2005); lead to depression and hypertension (Frone, Russell, & Barnes, 1996; Frone, Russell, & Cooper, 1997); and result in anxiety, substance dependence, alcohol abuse, and psychiatric disorders (Frone, 2000; Frone, Barnes, & Farrell, 1994; Frone et al., 1996, 1997). Many of these health issues impact the safety of workers.

Nine of the 12 studies used a quantitative approach. However, only one study used a measurable scale to identify work-family conflict. The remaining eight quantitative studies measured work-family conflict, sleep, or fatigue in statistically descriptive terms, with no opportunity for inferential analysis. However, inferential analysis might have been possible because many of the quantitative studies had large samples (Condon, Boyce, & Corkindale, 2004; Gjerdingen & Center, 2003; Hill, Hawkins, Martinson, & Ferris, 2003; Newburn & MacMillan, 1998; Russell et al., 1999). Of the 12 studies, three used qualitative methods in which work-family conflict, sleep, and fatigue were measured indirectly. None of these three studies investigated these factors as specific areas for thematic analysis.

The review highlighted the need to specifically study the work-family conflict, sleep, and fatigue of men in early fatherhood. However, such studies should be quantified to statistically establish any relationship with work safety. From a qualitative perspective, the lived experience of fathers who report sleep deprivation and fatigue is an equally significant area of investigation. Work-family conflict, sleep deprivation, and fatigue have subjective meaning (McQueen & Mander, 2003; Milligan, Lenz, Parks, Pugh, & Kitzman, 1996) and thus the expressive nature of these factors also impacts work.

Researchers have demonstrated interest in investigating the wellness of workers and their families. For ex-
ample, studies have investigated the relationship between work stress and family life (McGovern & Matter, 1992; Swanson, Power, & Simpson, 1998; Walker, Fleschler, & Heaman, 1998), and the health of working mothers with babies and their babies’ childcare needs (Albright, 1992; Gates & O’Neil, 1990; Killien, 1998; McGovern et al., 2007). However, only one of the 12 studies (Long & Johnson, 2001) specifically focused on the safety of early fathers as they balance work and family, and the consequences to their work safety.

### Table

**Review of the Literature on Fathers’ Sleep, Fatigue, and Work Safety**

<table>
<thead>
<tr>
<th>Study</th>
<th>Sample, Design, and Country</th>
<th>Findings</th>
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<tbody>
<tr>
<td>Dyer, 1963</td>
<td>First-time parents; quantitative survey (<em>n</em> = 32); United States</td>
<td>Work-family conflict: 83% of parents were “in crisis.” Sleep: 50% reported a loss of sleep in the first 6 to 8 weeks postpartum.</td>
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<td>Anderson, 1996</td>
<td>Fathers with 2-month-old infants; qualitative interview (<em>n</em> = 14); Canada</td>
<td>Work-family conflict and fatigue: fathers expressed fatigue due to the pressures of work and meeting the needs of their spouses and new babies in the first 8 weeks after their babies were born.</td>
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<td>Newburn &amp; MacMillan, 1998</td>
<td>Fathers; quantitative survey (<em>n</em> = 420); United Kingdom</td>
<td>Fatigue: 93% of fathers expressed tiredness and their most commonly expressed difficulty was crying babies.</td>
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<td>Russell et al., 1999</td>
<td>Fathers; telephone survey (<em>n</em> = 1,000); Australia</td>
<td>Fatigue: 60% of fathers reported feeling physically drained; 30% had high levels of stress.</td>
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<tr>
<td>Nyberg &amp; Stuern-hufvud, 2000</td>
<td>Couples with babies; telephone survey (<em>n</em> = 20); Sweden</td>
<td>Sleep and fatigue: sleep and fatigue were increasing concerns and were based around responding to the needs of the crying baby.</td>
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<td>Long &amp; Johnson, 2001</td>
<td>Adults from 14 families; ethnography, questionnaires, observations, and interviews (<em>n</em> = 25); United Kingdom</td>
<td>Safety and sleep: investigation of the effects of excessive infantile crying; fathers recognized the risks of driving while exhausted due to chronic shortage of sleep.</td>
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<td>Elek, Hudson, &amp; Fleck, 2002</td>
<td>Couples with children; quantitative survey (<em>n</em> = 44); United States</td>
<td>Sleep and fatigue: 60% of fathers reported less than 7 hours of sleep and expressed greater fatigue at night than mothers; fathers' fatigue increased significantly from the baby's birth to the fourth week postpartum.</td>
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<td>Hill, Hawkins, Martinson, &amp; Ferris, 2003</td>
<td>Working fathers and mothers; quantitative survey (<em>n</em> = 7,692); international</td>
<td>Work-family conflict and fatigue: 87% of working fathers experienced work-family conflict, reporting that they felt just as physically drained at home as they did at work.</td>
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<td>Gjerdingen &amp; Center, 2003</td>
<td>First-time fathers and mothers; self-report questionnaire (<em>n</em> = 129 men and 132 women); United States</td>
<td>Sleep: fathers' hours of sleep per night were measured during pregnancy (<em>M</em> = 7.4 hours) and 6 months postpartum (<em>M</em> = 7.2 hours).</td>
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<tr>
<td>Condon, Boyce, &amp; Corkindale, 2004</td>
<td>First-time fathers; self-report questionnaire (<em>n</em> = 312); Australia</td>
<td>Sleep: fathers reported a lack of sleep had a deteriorating effect on physical and mental health.</td>
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<td>Gay, Lee, &amp; Lee, 2004</td>
<td>Couples; randomized, controlled trial 1 month postpartum (<em>n</em> = 72); United States</td>
<td>Sleep: fathers received less sleep than mothers and had greater fatigue 1 month postpartum; fathers averaged 424 minutes (7 hours) of total sleep per night.</td>
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<td>St John, Cameron, &amp; McVeigh, 2005</td>
<td>First-time and subsequent fathers; qualitative interview (<em>n</em> = 18); Australia</td>
<td>Sleep and fatigue: fathers expressed specific stressors in the first 6 weeks after their babies’ birth, specifically tiredness from broken sleep and crying baby.</td>
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The time men commit to infant care and work may have health consequences due to work-family conflict, lack of sleep, and fatigue. Also, these concepts can have deleterious effects on safety at work.

Research and discussion have been limited related to the difficulties experienced by men who work and engage in infant care. This study identified only 12 previous studies. Thus, further research is necessary.

Occupational health nurses can assist men during early fatherhood despite this being a “blind spot” in occupational health nursing practice.

OCCUPATIONAL HEALTH NURSES CAN ASSIST MEN DURING EARLY FATHERHOOD DESPITE THIS BEING A “BLIND SPOT” IN OCCUPATIONAL HEALTH NURSING PRACTICE.


