POSTPARTUM MENTAL HEALTH OF NEW FATHERS AND RECOMMENDATIONS FOR NURSE PRACTITIONER LED, FATHER FOCUSED POST-NATAL PROGRAMS

by

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A CULMINATING PROJECT SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF

MASTER OF NURSING – NURSE PRACTITIONER
in

THE FACULTY OF GRADUATE AND POSTDOCTORAL STUDIES

(School of Nursing)

THE UNIVERSITY OF BRITISH COLUMBIA

Vancouver

February 2017

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Abstract

Transitioning into fatherhood can cause mental health issues such as post-partum depression (PPD). Paternal PPD not only affects the individual, but their relationships with partners and children as well. This scoping review explores paternal PPD, the experience of new fathers during the post-natal period, fathers' knowledge gaps and learning preferences; post-natal and men's health programs are also identified. Findings drawn from this review inform recommendations for postnatal programs to improve the inclusion of new fathers amid describing how NPs can promote men's health in the postpartum period. To complete the requirements of the culminating project, this scoping review has been developed into a manuscript for submission for publication.

Postpartum Mental Health of New Fathers and Recommendations for Nurse Practitioner Led, Father Focused Post Natal Programs

The experience of becoming a parent can differ between men and women. While maternity and motherhood have been, and continue to be, extensively researched, few studies have addressed father related matters, especially in the postpartum period. There is an understanding that transitioning to fatherhood has its own changes and challenges; however, little research has been done regarding the needs and experiences of fathers (Thomas, Bonér, & Hildingsson, 2011). In contrast to previous generations, men today are becoming more involved during the various phases of pregnancy, birth, infant care and child-rearing (Beaupré, Dryburgh & Wendt, 2014). Over recent years, the number of women in the labour force have also increased, which may explain why traditional parenting roles have evolved and why fathers are increasingly engaged with their children and household duties (Beaupré et al., 2014). Transitions to fatherhood can cause anxiety and depression, putting men at risk for mental illness, which can have flow on effects to other family members. Unfortunately, many men often do not prioritize their health needs and are reticent to access healthcare services (Goldenberg, 2014). It has been estimated that 80% of men refuse to seek medical care until they have been persuaded by their partner (Goldenberg, 2014).

During the postnatal period (which this review refers to as the first 12 months after a child's birth) parents are often seeking health-related services and programs for their infants. These visits can be opportunistic for health care professionals, including Nurse Practitioners (NPs), to connect with new fathers and assess their health and well-being. By incorporating NPs into postpartum programs, an immediate opportunity for screening, diagnosing, managing and referring fathers, especially those at risk for serious mental health issues, can occur.

With shifts in contemporary fathering roles, it is important to understand what men's transition into fatherhood entails and how NPs can best support and guide new fathers as they care for their children, spouses and themselves. Despite a lack of widespread research regarding the paternal postpartum experience, the existing studies from countries including Canada, United Kingdom, Sweden, Japan and Australia offer similar findings and conclusions. The findings and discussion of this scoping review are presented in five sections. The first section of the scoping review uncovers the elements involved in fathers' mental health including postpartum depression (PPD) and how PPD effects relationships and children. The second section explores the postnatal experience of new fathers. The third section summarizes what new fathers wanted to learn and their learning preferences. The fourth section discusses post-natal programs in Canada, men's health programs, and an internationally relevant program. Finally, in the fifth section, with findings drawn from this review, recommendations for postnatal programs to improve the inclusion of new fathers are provided amid describing how NPs can promote men's health in the postpartum period.

Search Strategy

The databases used for this review include the Culmulative Index to Nursing and Allied Health Literature (CINAHL) complete and MEDLINE with full text. In regards to PPD in fathers and their postnatal experience, a search was conducted using a variety of combinations of the following key words: father*, transition, postpartum, postnatal, experience, new fathers, support, first time fathers, depression, men's health, paternal and maternal. In order to stay relevant to modern times, inclusion criteria of the articles reviewed included studies from 2011 to 2016 inclusive. Other inclusion criteria were studies focused on men who were first time fathers of full term infants, and maintained a relationship with their child's mother. Due to a

lack of Canadian studies on this focus, inclusion criteria extended to research conducted in other countries and publications in English. Articles excluded were studies that focused on pre-term infants, newborns requiring hospitalization, father's birth experience, primarily on maternal depression, prenatal paternal depression and adoption.

Method

To further explore and compare the selected articles, a Review Matrix was developed (see Table 1). The Review Matrix included an evaluation of the study design, sample, methodology and results of the selected articles. Each article was analyzed and compared with other selections for common findings and themes.

1. Mental Health of New Fathers

Becoming a father can be overwhelming and have an impact on men's mental health. According to recent research, 10.4% of new fathers have depression, whereas the general male population has a lower occurrence of 4.8% (Chin, Daiches, & Hall, 2011a). Other mental health issues can also occur for fathers in the postpartum period, such as feelings of helplessness and anxiety (Chin, Hall, & Daiches, 2011b; Deave & Johnson, 2008; Kowlessar, Fox, & Wittkowski, 2014). Lack of knowledge and lack of postnatal support are factors perceived by new fathers in contributing to these negative emotions (Chin et al., 2011b; Deave & Johnson, 2008; Kowlessar et al., 2014). In a study by Chin et al., (2011b), it was discovered that anxiety levels seemed to decrease when new fathers became more confident in their infant care skills. Mental health issues in new fathers are also associated with maternal PPD, and can develop into paternal PPD.

Maternal Postpartum Depression

In the literature, an extensive range of studies exist regarding PPD in mothers. It has been found that each year in Canada, 50 000 women experience PPD (Letourneau, Duffett-

Leger, Dennis, Stewart, & Tryphonopoulos, 2010). Maternal PPD has been found to be correlated with PPD in fathers (Letourneau et al., 2010; Nishimura, Fujita, Katsuta, Ishihara, & Ohashi, 2015). In the postnatal period, it was found that rates of depression ranged from 24% to 50% in fathers whose spouse had maternal PPD (Letourneau et al., 2010). A Canadian pilot study found that when partners had maternal PPD, some fathers were also experiencing symptoms of depression including "anxiety, sleep disturbances, fatigue, irritability, sadness, changes in appetite, and thoughts of bringing harm to self or baby" (Letourneau et al., 2011).

Paternal Postpartum Depression

At its extreme, mental health of new fathers can be greatly affected leading them to paternal PPD. PPD is often associated and recognized with mothers; however, it can occur in fathers as well (Canadian Mental Health Association [CMHA], 2016). Varying estimates of paternal PPD have been reported in literature, indicating that PPD is occurring in "4% to 25% of new fathers within the first postpartum year" (Stadtlander, 2015). However, since PPD in fathers is poorly recognized (Stadtlander, 2015), this range may actually be underestimated. Financial instability, low level of education and relationship issues with their spouse and children have been associated with PPD in men. Long-term effects have been seen as well – PPD in men and its associated relationship issues became the mediating factor for the psychological issues seen in their children in later years.

Financial instability and work environment. A significant associated factor in depression experienced by new fathers is financial instability (Bergström, 2013; Serhan, Ege, Ayrancı, & Kosgeroglu, 2012). Serhan et al. (2012), reported that unemployed fathers scored higher on the Edinburgh Postnatal Depression Scale (EPDS), (a screening tool for postpartum depression) than those who had jobs or were self-employed ($p<0.05$). Bergstrom (2013)

similarly found that men's depressive symptoms were associated with low household income and apprehension about unemployment and economic uncertainty. A significant correlation between paternal PPD and anxiety about economy was also reported in a study based in Japan, where paternal PPD rates were at 13.6% at four months postpartum, increasing to 19.4% at 12 months postpartum (Nishimura et al., 2015).

With mothers likely to be home caring for their infant, fathers can have increased responsibility to ensure that adequate income is earned to provide for themselves and the family. The addition of a new family member can exert further pressures to maintain or even increase income to meet the financial needs of the household. Along with this, maintaining job performance while experiencing "increased demands of infant caregiving, sleep disruption and changes to the couple relationship" (Cooklin, Giallo, Strazdins, Martin, Leach & Nicholson, 2015, p. 215) becomes yet another challenge. In balancing fatherhood and employment, "fathers who worked long hours, night shifts, or had inflexible working hours reported higher work-family conflict and more psychological distress" (Cooklin et al., 2015, p. 220). Thus, the element of financial instability can be seen as a multifactorial issue, with demands to perform at home and at work; compounded by unemployment or risk of losing employment, new fathers may suffer from high levels of stress and anxiety, consequently, leading to depression.

Low level of education. Low level of education is also associated with paternal PPD (Bergstrom, 2013; Sentha, Murray, & Ramchandani, 2012). In a study by Bergstrom (2013), depressive symptoms were found to be significantly associated with lower levels of education. Unfortunately, fathers who had low levels of education along with depression, had a negative effect on their children. Compared to fathers with degree-level education, fathers without

educational credentials "used a greater proportion of infant-focused negative comments" (Sentha et al., 2012, p. 2366).

In the general population, studies have reported that low levels of education and financial strain have been associated with major depressive episodes (MDE) (Wang, Schmitz & Dewa, 2010). Based on their study of socioeconomic status and depression in Canadians, Wang et al., (2010) found that education and financial strain were independent risk factors for depression. However, in the post-natal period, it is possible that the two factors are associated with one another. It may be possible that those with lower educational levels may be employed on lower wages; an addition of a newborn could increase financial pressures and along with the learning curve of fatherhood, stress could be amplified, leading to mental health problems. Further exploration of the relationship between low level of education, financial instability and depression specifically in paternal PPD is required; however, awareness that an association exists between these elements can help NPs identify fathers who may be susceptible for depression.

Relationship issues with spouse and children. Marital problems, including decreased quality of the relationship and disconnect between the partners, were significantly associated with paternal PPD (Bergstrom, 2013; deMontigny, Girard, Lacharité, Dubeau, & Devault, 2013; Gutierrez-Galve, Stein, Hanington, Heron, & Ramchandani, 2015; Nishimura et al., 2015). Concerning their relationship with children, PPD in fathers was found to be associated with the fathers' perceptions of the relationship (deMontigny et al., 2013) and verbal and physical communication with their child (Giallo, Cooklin, Wade, D'Esposito, & Nicholson, 2014; Gutierrez-Galve et al, 2015; Sentha et al, 2012; Sentha, Murray, Netsi, Psychogiou, & Ramchandani, 2015). In their study, deMontigny et al. (2013) found that "perception of having a dysfunctional relationship with the child were significant factors associated with depression" (p.

46). Fathers who had depression were found to have less verbal communication with their infants when compared to non-depressed fathers (Sethna et al., 2012). Also, when communicating with infants, phrases spoken by depressed fathers were self-focused, had increased negativity and infant-directed critical comments (Sethna et al., 2012). Another study discovered that fathers who had depression were less intrusive, defined as "using less vocal and physical stimulation" (Sethna et al., 2015, p. 5), with their infants.

Effects of Paternal Postpartum Depression on Children. PPD in fathers and associated elements of marital issues (Gutierrez-Galve et al, 2015; Sentha et al, 2012) and poor verbal and physical communication with children (Giallo et al, 2014; Smith, Eryigit-Madzwamuse & Barnes, 2013), became the mediating factors of paternal PPD to children's behavioral issues. A study conducted by Smith et al. (2013) revealed that the mental illness symptoms in fathers at three months postpartum was associated with child behaviour problems at four years old, which was mediated by the marital disagreements that had occurred at three months postpartum. Similar findings were seen in a study by Gutierrez-Galve et al. (2015), in which couple conflict indirectly led paternal PPD to mental health problems in the child at ages 3.5 years and 7 years old. PPD symptoms and mental health issues in fathers measured at 36-months post-birth were also found to be a significant predictor of child socio-emotional issues (as reported by the parents) at age 5 years, even when other variables were controlled (Smith et al., 2013). In another study, Giallo et al. (2014) found that fathers with "high postnatal distress [were] significantly associated with high parenting hostility" (p. 1551), described as "feelings of irritability, frustration, and anger toward the study child" (p. 1549). Consequently, the hostility became a factor for emotional and behavioural challenges seen in the children at ages 4 to 5 years (Giallo et al., 2014).

2. The Experience of Becoming a New Father

Embarking on fatherhood is a milestone in a man's life that comes with excitement and challenges. For new fathers, the postpartum period entailed themes of various emotions, role development, work and knowledge barriers to involvement, lack of support and resources.

Emotions for Baby, Self and Partner

Transitioning to fatherhood with the birth of a child can bring about various positive and negative emotions for their child, fathers and for their spouses. During the early postpartum period, fathers can feel overwhelmed with emotions of "amazement, love and a sense of great responsibility, surprise and confusion" for their new baby (Deave & Johnson, 2008, p. 631). Within themselves, new fathers "expressed feelings such as fear, excitement and joy about becoming a father" (Deave & Johnson, 2008, p. 628). Motivated with the new obligations of being a father, feelings of self-evolvement were reported by men, in which they eliminated "behaviours which they viewed as child-like" (Chin et al., 2011b, p. 13-14), and matured, "[expressing] the need for greater self-care or less risk-taking" (Chin et al. 2011b, p. 13-14).

Emotional changes for their spouses occurred as well. With the mother's focus on the child, some fathers felt the disconnection in their intimate relationship and found difficulty in spending one-on-one time with their spouse (Chin et al., 2011a). A decrease in affection from their partners was also experienced, causing feelings of jealously (Chin et al., 2011a). Despite the lack of time spent together, changes in intimacy and decreased spontaneity, positive changes did occur for many fathers (Chin et al., 2011b). After the arrival of the baby, most men expressed that the relationship with their partner had further unified with increasing the strength and depth, creating wholeness and cohesiveness (Chin et al., 2011b).

Role as a Father: The Secondary Care-Giver

Taking on a new role as a father was an experience in itself that involved doubts, confusion and challenges "in which fathers searched for their role and position in relation to their partner, child and work" (Chin et al., 2011a, p. 20). For men who "perceived their fathers as distant or disengaged, they desired to be emotionally connected to their children" (Chin et al., 2011b, p.14). Engaging with their unborn child was difficult in the antenatal period, during which "first-time fathers described themselves as bystanders: more detached than they expected or wanted to be" (Deave & Johnson, 2008, p. 631). It was during observation of their child's birth when some fathers felt an emotional bond with their baby (Chin et al., 2011a). Feelings of detachment remained at times, but it could improve in the postpartum period when fathers started having occurrences of "a sense of belonging and involvement" (Chin et al., 2011a, p. 20). With the perception that the baby's mother was a proficient, capable caregiver, father's settled into a supportive role as they continued on to the postnatal period (Chin et al., 2011a). In contrast to mothers, men viewed themselves as fathers who engaged with their child mainly during play and physical activity (Chin et al., 2011b; Deave & Johnson, 2008). Participation in this matter further evolved their position as a parent "in which fathers felt valued, effective and significant in their role" (Chin et al., 2011a, p. 20).

As a father, providing financial support for their families was a vital task for many men (Chin et al., 2011b, Kowlessar et al., 2014). First-time fathers with a higher level of education and who had worries about finances were "most likely to have thoughts about the difficulties of parenthood" (Thomas et al., 2011, p. 506). Upon returning to work after a short leave, many fathers felt conflicted as long work hours, in order to maintain income, created less time spent with their baby (Kowlessar et al., 2014). Making a decision to stay longer at home became a

challenging choice as men had to consider "their partner's wishes, their employer's willingness, and the family's economic needs" (Kowlessar et al., 2014, p. 500).

Barriers to Involvement: Work

Returning to work shortly after the arrival of their new baby was a challenging aspect of fatherhood (Chin et al., 2011b; Deave & Johnson, 2008). Working at their jobs prevented fathers from being with their child, accompanying them to parent-child events and medical appointments (Chin et al., 2011a). These absences created negative "feelings of physical and emotional detachment from their child and partner" (Chin et al., 2011a, p. 22). Unhappiness and exclusion was felt by fathers who were unable to take time away from their job in order to attend such activities (Deave & Johnson, 2008). Finding an acceptable work-family life balance was challenging for new fathers (Chin et al., 2011b) and in an attempt to feel included, and perhaps to compensate, fathers reported contacting their spouses during breaks for updates (Chin et al., 2011a).

Barriers to Involvement: Knowledge

Upon embarking fatherhood, many men struggled with their roles due to a lack of knowledge. Antenatal programs have been developed to prepare parents for a newborn child; however, fathers have been disappointed with the lack of information targeted for them, and often sought information and peer-support through their wives and co-workers (Chin et al., 2011a; Deave & Johnson, 2008; Kowlessar et al., 2014; Thomas et al., 2011). In a study by Deave and Johnson (2008) "anxiety around the time of the birth; lack of preparation for the postnatal period; lack of practical information about baby-care, and the challenges of the changes in relationships with partners" (p. 628) were areas that new fathers had concerns with. Unfortunately, new fathers have perceived and accepted that their needs are unimportant

(Kowlessar et al., 2014), which can be a hindrance in seeking out and/or requesting information that they need to manage their new roles.

Lack of Support and Resources

In contrast to mothers, new fathers often did not have a well-established social support system and acknowledged their partners, family members, friends and co-workers as providing support in the postpartum period (Kowlessar et al., 2014; Thomas et al., 2011). To seek guidance from their own fathers was rare (Kowlessar et al., 2014; Deave & Johnson, 2008), especially for men whose fathers were not fully engaged with child-rearing (Kowlessar et al., 2014). Upon returning to work, new fathers reported that co-workers, who have become a parent themselves, were key resources for support (Chin et al., 2011a; Deave & Johnson, 2008; Kowlessar et al., 2014; Thomas et al., 2011). In having undergone a similar experience, co-workers could aid new fathers with navigating the challenges, mental and emotional experiences involved in being a working father (Chin et al., 2011a). Although attending work exposed new fathers to some support, having to attend work in itself caused them to feel isolated (Deave & Johnson, 2008). With limited male supports, new fathers expressed a need for professional guidance (Deave & Johnson, 2008).

Generally, when compared to maternal and infant care, paternal care in the postpartum period is lacking. Despite the fact that transitioning into fatherhood has its challenges, few resources and support are available for men (Deave & Johnson, 2008). A barrier to accessing resources is opportunity in connecting with a health care provider. Postnatal programs and health-check appointments often occur during regular work hours, and many working fathers may miss potential opportunities for gaining knowledge, guidance and support from a health care professional (Deave & Johnson, 2008).

3. Learning Needs and Preferences

Parenthood was described by one father as a "steep learning curve involving the process of trial and error" (Kowlessar et al., 2014, p. 9). Regarding information related to fatherhood, men have articulated that the content itself and its delivery were key elements that would have enhanced their learning experience (Deave & Johnson, 2008). Understanding what fathers need to learn and how they want to engage in learning, can create a more meaningful postnatal experience, increase confidence earlier, perhaps before, fatherhood begins, and help eliminate anxiety of their new role.

What Do New Fathers Want to Know?

In order to offer relevant information for new fathers, it is important to understand what learning gaps exist for them and how they best learn. During the postnatal period, fathers expressed that it would have been beneficial for them to know about infant care, their role as a father and be aware of expected relationship changes with their partners (Deave & Johnson, 2008; Kowlessar et al., 2014). Men expressed that they wanted to contribute in caring for the infant but felt hindered by their lack of information, abilities and/or supports (Chin et al., 2011b; Deave & Johnson, 2008; Kowlessar et al., 2014). Feeling unprepared, fathers wanted more information regarding their new role and fatherhood (Kowlessar et al., 2014). Postnatally, fathers expressed unpreparedness for the challenges and stresses that developed in their relationships with their spouses (Deave & Johnson, 2008). Although new parents eventually worked through the challenges on their own, fathers shared that information about expected strains on the relationship, after the arrival of a baby, would have been valuable (Deave & Johnson, 2008).

How Do New Fathers Want To Learn?

The knowledge gaps of fathers have been described; however, addressing these deficits relies on knowing how best to message new fathers with the information they want. Fathers have indicated that information through digital media, internet, father-targeted sessions and learning from experienced parents would be most beneficial. Fathers have suggested that offering informational DVDs covering their requested topics would be useful; particularly because it allows for flexibility and convenience for learning at their own time, place and with others (Deave & Johnson, 2008). Presently, many options for digital media are available, such as Netflix and YouTube; since digital media evolves, re-evaluating men's preferences within this learning platform would be required.

An understandable frustration felt by fathers is the absence of father-focused sessions regarding the post-natal discourse, whether in an antenatal or postnatal program (Deave & Johnson, 2008; Thomas et al., 2011). Although they attended programs and appointments in the antenatal and/or postnatal period, fathers often felt excluded, that they were bystanders and did not have their learning needs met (Deave & Johnson, 2008). Fathers were also frustrated by health care professionals' presumptions that fathers were inefficient with caring for children and were the secondary caregiver (Cosson & Graham, 2012). Another learning resource some fathers wish they had were opportunities for discussion with more experienced new fathers (Chin et al., 2011b; Deave & Johnson, 2008). Fathers expressed that it would have been useful to hear about their experiences and how they coped (Chin et al., 2011b; Deave & Johnson, 2008).

These learning suggestions made by new fathers all involved an element of active participation. Study findings by Golding (2006) discovered that a majority of men "expressed a keen desire to learn by being actively involved in an activity rather than passively learning

'about' something" (p. 266-267). Golding (2006) also found that "learning through regular and active community participation in familiar social and cultural settings is more effective and more closely matched to men's learning preferences" (p. 267).

Informal Learning

To address the learning needs of fathers, an informal learning approach to father-targeted programs can be an effective strategy. Schugurensky (2000) explained that "informal learning includes all learning that occurs outside the curriculum of formal and non-formal educational institutions and programs" (p. 1). In the context of new fathers and the postnatal discourse, informal learning is the basis behind men's knowledge acquisition and summarizes their learning preferences. The informalities with informal learning also allows for a flexible, non-structured approach in integrating father-focused educational materials and assessments into existing postnatal programs.

4. Programs

Post-Natal Programs in Canada

In Canada, various provincial and private post-natal programs are available, majority of which focus on heavily on mothers and babies. Sessions and workshops are also available for both parents; however, father only programs are scarce. Resources are also available for PPD, but often addresses maternal risk rather than for both mothers and fathers.

An example of a pre- and post-natal program is Mommy Connections (2017). Mommy Connections (2017) is a program that connects mothers and their infants/toddlers to local resources and offers weekly classes relevant to prenatal and postnatal care for self and babies. Focused on educating and connecting mothers, success of the program has led to various locations throughout Canada including Alberta, British Columbia (B.C.), Saskatchewan, Ontario,

and Newfoundland. Although this program is focused on mothers and babies, a platform such as this could be expanded for a fathers-only program as well.

Postpartum Programs in B.C. Currently in British Columbia (B.C.), many types of postnatal programs are offered, although, city dependent. Locally, throughout the B.C. Lower Mainland, Community Centres offer Public Health services including home visits, infant care, growth and development assessments, speech and language pathology, audiology and dental services (kidsvancouver.com, 2010). Another program available is "Best for Babies" through the B.C. Association of Pregnancy Outreach Programs (BCAPOP), a non-profit society that offers "support for women, during pregnancy, post-partum and up to 12 months post-natally" (BCAPOP, 2016). Unfortunately, these programs and workshops appear to lack father-targeted sessions.

In Victoria, B.C. The Mothering Touch Centre (2016) offers a father-targeted discussion workshop for new and expectant fathers which covers challenges and strategies for fatherhood. The Mothering Touch Centre (2016) also offers a hands-on postnatal parenting workshop for parents; however, does not offer a father-only session.

Although in-person, father-focused programs are limited throughout the communities in B.C., online resources are available for new fathers. Developed in Vancouver, the Pacific Post Partum Support Society (PPPSS; 2017) provides resources, articles, personal accounts and links for new fathers regarding postpartum depression and anxiety. The information presented on their website appropriately addresses the support needs of fathers, and presents the information with links and videos which can be appealing learning mediums for men. The society also informs men of at risk factors and signs and symptoms of depression and anxiety. Importantly, the

website provides the EPDS for self-assessment, which can help verify symptoms and experiences and encourage men to seek medical attention.

Men's Health Programs

Men's Sheds. Outside of the postpartum context, programs focusing on men are also limited. Of the few existing programs, Men's Sheds has been identified as a successful program in promoting health in older men (Culph, Wilson, Cordier & Stancliffe, 2015). Founded in Australia and expanding into countries including Canada, Ireland, U.K., New Zealand and Scotland (Canadian Men's Sheds Association, 2017); Men's Sheds are community places that welcome men to gather, connect and engage in activities involving learning new skills (Wilson & Cordier, 2013). Men partake in various activities such as "carpentry and small construction work…gardening, pottery, social outings and art…visits from health professionals, access to men's health literature and men's health screening activities" (Wilson & Cordier, 2013, p. 452). In their literature review of Men's Sheds, Wilson and Cordier (2013) found that the "informal learning environment" contributed its effectiveness, and benefited "men with mental health problems" (p. 461). Focused on depression in older men and Men's Sheds, Culph et al., (2015) found that participation in Men's Sheds helped to lower depressive symptoms and increased confidence levels with feelings of "pride, achievement and self-worth" (p. 312). As with fatherhood, transitioning to retirement is another milestone experienced by men. Similar to embarking fatherhood, older men may be challenged with role identity and decreased self-esteem as they transition to retirement (Culph et al., 2015). In promoting men's health, the Men's Shed program can be an influential example of how to effectively focus and connect with men who are first time fathers. The men-only environment and promotion of social engagement through

conversation and activity seen in this program, can be key components that could be implemented into existing post-natal programs to create a father-friendly setting.

The DUDES Club. The DUDES Club is another program that focuses on men's health, specifically for men in First Nations communities (Ogrodniczuk, Oliffe, Kuhl, & Gross, 2016). The program offers "events and activities that focus on the spiritual, physical, mental, emotional, and social aspects of wellness in men" and strives to connect "men with health care professionals and other support services" (DUDES Club, 2017). In an evaluation of the program it was discovered that with participation, men had "increased feelings of trust, support, and connection to culture and heritage" (Gross, Efimoff, Patrick, Josewski, Hau, Lambert, & Smye, 2016). Significantly, Gross et al., (2016) found that higher attendance rates had an "effect on quality of life, mental health benefits, and health confidence" (p. 317). In focusing on the local community, the DUDES Club has identified a group of men who could benefit from additional supports and have created a setting where men can be linked to specific resources; this type of assessment and referral can be established into other post-natal programs. Connecting fathers who have similar needs and backgrounds can help establish a more meaningful support system and encourage return visits to father-only post-natal activities. Like the DUDES club, post-natal programs can also be a link for fathers to primary health care and other health promoting services.

Internationally Relevant Programs

To further inform recommendations for B.C. post-natal programs, internationally relevant programs were explored. One such program is the Sure Start Children's Centres (SSCC). The SSCC is a program that was formally introduced in 2006 in the U.K., targeting children under the age of five from families who were socioeconomically disadvantaged (Coleman, Sharp, &

Handscomb, 2015). Delivery of the program included an approach to include fathers; successful attempts in targeting fathers was discovered at SSCC Hinton, England location (Potter & Carpenter, 2008), which will be discussed further under recommendations.

5. Recommendations for Post Natal Programs

Based on the findings from this scoping review, the following recommendations are offered for postnatal programs targeting new fathers and how NPs might lobby and facilitate those services.

Targeting Fathers

Offer a father and baby only session. As most fathers return to work shortly after the birth of their child, they often miss opportunities for attending parent and baby programs which are usually held during regular working hours. As programs usually run on a weekly basis, one session a month could be offset to an evening or weekend session in order to accommodate working fathers. These sessions should be a father-and-baby invite only to enhance the relationship between the father and child and to help create an environment where fathers can meet with other fathers to develop mutual help relationships which can grow beyond the program. In a study analyzing the SSCC in Hinton, England, Potter and Carpenter (2010) found that parents perceived father-child only sessions as beneficial for both the father and child. Fathers reported that one-on-one time spent with their child helped in building stronger attachments (Potter & Carpenter, 2010). Socialization and peer support were also perceived by parents as important benefits in an all-father session which helped to reduce social isolation experienced by new fathers, and allowed for open discussions between men (Potter & Carpenter, 2010).

Provide an informal setting. Provide activity stations to allow for fathers and babies to casually engage in various tasks – such as, height and weight stations, diaper changing area, play area, reading area, and an educational section. In an informal setting, learning needs can be assessed and education can be provided as requested by fathers or as deemed necessary by the NP. Since men have "shared a clear desire to learn for a wide range of purposes in less formal, practical, group settings" (Golding, 2006), this approach can foster further learning by addressing gender specific learning preferences. Having various activities during the session also promotes a client-led learning opportunity. In attracting men to the SSCC program, Potter and Carpenter (2008) discovered that consulting with fathers on what activities they wished to engage in was an appealing factor for them. Acting on these requests was also important in maintaining the interest of fathers (Potter & Carpenter, 2008). During the father-child sessions, fathers voiced support and appreciation in having an opportunity to make their own choices on which activities they wanted to engage in (Potter & Carpenter, 2008).

Provide education and activities relevant to fathers. As mentioned earlier, sessions should include an educational component. Information should focus on the learning gaps that fathers have identified in the literature including infant care, their role as a father and anticipatory relationship changes, challenges and supports. In addition, other topics that may be of interest to men should be offered, such as first aid treatment, infant massage, infant/toddler activities and play, stress reducing strategies, date night ideas, three ingredient family meals. Such themes can provide fathers with practical life-skills, coping mechanisms and ideas for bonding with their child and enhancing their spousal relationship. Sessions such as this could also promote self-care and healthy habits for fathers as well. Oliffe, Bottorff, & Sarbit (2012) found that supporting a group of men in their fathering roles allowed for open dialogue about

their fatherhood, a context in which men also discussed smoking cessation experiences and resources. Topics that may appear to be heavily targeted for men need to be pitched and implemented in a manner that supports fathers and their families (Potter & Carpenter, 2008). As an example, the SSCC in Hinton, England offered a successful Martial Arts class, which "used a range of sophisticated techniques to teach relaxation and anger management" rather than focusing on the fighting aspect of this sport (Potter & Carpenter, 2008, 2010).

Promote mentorship. Men have reported that they wished they had opportunities to speak with fathers who have gone through the postnatal period to ask about their experiences, and coping strategies (Deave & Johnson, 2008). To create this opportunity, fathers of older babies and toddlers should be encouraged to attend father-only sessions to provide peer-to-peer support for new fathers, especially for those who are lacking male connections. Fathers have reported that conversation with new parents regarding their experience would be beneficial (Chin et al., 2011b). Also, studies have shown that men value peer-to-peer support, particularly in an all-male setting (Oliffe et al., 2012; Potter & Carpenter, 2010).

Utilizing Nurse Practitioners

As discussed earlier, men often are disinclined to seek health care (Goldenberg, 2014). In study focused on supports for smoking cessation in expectant and new fathers, men identified fatherhood as an opportunistic time to make positive changes to their health (Oliffe et al., 2012). Having a child became a motivating factor for these men to quit smoking in order to improve their health and be the ideal father they hoped to be (Oliffe et al., 2012). By recognizing fatherhood as an opportunity to promote men's health, NPs can be the connection for fathers to primary health care. To further enhance the NP's approach in caring for their male patients, Rosu, Oliffe, and Kelly (2016) have offered recommendations that included eliminating power

imbalances between health care professionals and patients, using motivational interviewing, assessing and supporting men's masculine ideals in consideration of their life stage and connecting patients to community and online resources. In the postpartum setting, adopting these recommendations can help NPs build rapport with fathers, encouraging return visits for further opportunities to promote their health. Positive interactions in the community setting can also encourage men to make office visits with the NP for any related health concerns which they may not have otherwise done.

As discussed earlier, embarking on fatherhood can elicit depression and anxiety; early detection and treatment for mental illness is vital. In regards to screening tools such as the Patient Health Questionnaire (PHQ-9), it has been critiqued as being inaccurate in detecting depression in men (Gagnon & Oliffe, 2015). On the other hand, the Edinburgh Postnatal Depression Scale (EPDS) has been found to be a highly validated assessment tool in screening for PPD both mothers and fathers (Bergstrom, 2013; deMontigny, 2013; Gutierrez-Galve et al, 2015). More recently, an assessment tool called the Male Depression Risk Scale (MDRS) has been developing interest which is "sensitive to externalising depression symptoms…such as anger, substance abuse and risk-taking behaviours" (Rice, Fallon, Aucote, & Möller-Leimkühler, 2013, p. 955). Being a risk scale, further studies are required to test its accuracy in predicting depression (Rice et al., 2013); however, it is important for NPs to be aware that more male-specific depression screening tools are emerging and require studies for validation. Nevertheless, clinical assessments should be ongoing; Gagnon and Oliffe (2015) advised that "use of open-ended, loop, and probe questions are important strategies toward identifying men's depressive symptoms" (p. 52).

Conclusion

Internationally, the role of the fathers is evolving, and in most developed countries, men are increasingly involved in child-rearing, despite their own childhood experiences with their parents. New fathers face challenges in balancing their personal, family and work life, which can lead them to feelings of stress, anxiety, depression and PPD. Mental well-being of new fathers can be negatively affected due to changes in their identities, relationships and responsibilities. Mental health issues can also create health related issues for family members, especially for their children who can have psychological issues later in childhood (Gutierrez-Galve et al., 2015; Nishimura et al., 2015). Based on current evidence, it is clear that fathers require tailored, gender-specific guidance as they transition into fatherhood. Knowledge gained from this scoping review can be incorporated into current postpartum programs to meet the needs of new fathers, and further studies and evaluations should be used to formally evaluate those much needed efforts.

Despite having issues with their mental health, fathers may continue to suffer as they often are reluctant to seek medical attention. NPs are well positioned to engage men and should lobby new dads directly during post-partum health visits for early screening, assessments and referrals as necessary. By including new fathers during post-partum visits, NPs can help men with their health care needs who may otherwise not sought help or been lost to follow-up. Although additional research is required to further understand the paternal postpartum experience, creating opportunities for men to access health care services through a NP can help to reduce gender-related health inequalities and promote men’s health, and by extension, the health of their family.

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Appendix

This culminating project is part of the degree requirements for the Master of Nursing – Nurse Practitioner Program at the University of British Columbia. For completion of this project, a manuscript has been developed for submission for publication. The manuscript is based on this scoping review and its recommendations. The intention of submitting a manuscript for publication is to create awareness of men's mental health during the postpartum period, offer improvements to post-natal programs and to inform Nurse Practitioners of the various strategies that can be made for promoting men's health, specifically for new fathers.

Table 1. Review matrix of selected articles regarding paternal PPD & fathers' experiences.

Author(s)/Year	Aim(s) of study	Study design, location, sample	Methods	Results	Strength(s)/ Weakness(es)
Bergström (2013)	To investigate if depressive symptoms in new adult first-time fathers were associated with age, sociodemographic characteristics, and antenatal well-being in a Swedish sample.	Randomized control study Sweden 812 fathers	Depressive symptoms investigated 3 months after their first baby was born	Younger fathers had an increased risk for depressive symptoms. Low educational level, low income, poor partner relationship quality, and financial worry increased the risk for depressive symptoms, but these factors could not explain the increased risk for among the young	Strengths: appropriate statistical analysis used Weakness: unknown generalizability (ethnicity not disclosed)
Chin, Daiches & Hall (2011a)	To explore first-time fathers' experiences of becoming a father, focusing on their expectations, experiences, and their views on how they are coping with this transition.	Qualitative UK 9 participants - 30-46 years old - White British - Middle class	Recruited from antenatal classes Individual semi-structured interviews in homes, between 4-11 weeks post birth Interpretative phenomenological analysis	Fathers searched for their role, position in relation to partner, child and work Fathers felt emotionally & physically detached & sometimes experienced sense of belonging & involvement Fathers felt valued, effective, significant in their role; active vs passive Changing focus of affection in relation to love & attention from partners	Weaknesses: Audiotaped interviews, small, homogeneous sample

Table 1 ***(Continued).***

Author(s)/Year	Aim(s) of study	Study design, location, sample	Methods	Results	Strength(s)/ Weakness(es)
Chin, Hall, & Daiches (2011b)	To synthesize the findings of recent qualitative studies which explored fathers' experiences of their transition to fatherhood	Metasynthesis UK, Sweden, Australia Total sample: 96	Meta-ethnographic approach utilized to synthesize findings of 8 articles representing 6 qualitative studies published between 2002 - 2008	Emotional reactions to phases of transition: 'detached, surprise, and confusion' Identifying their role as father: the 'approachable provider' Redefining self and relationship with partner: the 'more united tag team'	Strengths: large sample, various countries Weaknesses: poor reporting of contextual information in several reports
Cooklin, Giallo, Strazdins, Martin, Leach & Nicholson (2015)	To identify the particular work characteristics associated with work-family conflict and enrichment, and fathers' mental health in the postpartum period.	Longitudinal study Australia Sample size: 3243 fathers	Survey data analyzed via path analysis; two stage sample design	Long and inflexible work hours, night shift, job insecurity, a lack of autonomy and more children in the household were associated with increased work-family conflict, and this was in turn associated with increased distress.	Strengths: large sample size Weakness: lacks generalizability (fathers excluded due to incomplete data, likely to be exposed to poorer job conditions)

Table 1 ***(Continued).***

Author(s)/Year	Aim(s) of study	Study design, location, sample	Methods	Results	Strength(s)/ Weakness(es)
Cosson & Graham (2012)	To identify barriers and opportunities in relation to fathers' engagement with residential parenting support programs.	Qualitative Australia Sample size: 27 fathers	Five focus groups conducted, researchers transcribed notes and compared notes to identify convergence in trends and patterns.	Fathers believed themselves to be part of a 'parenting team' and that lack of recognition of this fact impacted on their level of engagement with support services.	Strengths: Multiple (5) focus groups conducted. Weaknesses: lacks generalizability to other cultural, religious backgrounds, focus on a particular program.
Deave & Johnson (2008)	To explore the needs of first-time fathers in relation to the care, support and education provided by healthcare professions during the antenatal period, particularly in relation to preparing them for the transition to fatherhood.	Cross-sectional study UK Sample size: 20 fathers, ages between 19 to 37 years old.	Two semi-structured interviews with fathers; first during last trimester and second three to four months postnatally.	Several common themes emerged from both the ante- and postnatal data, including lack of support mechanisms, involvement in antenatal provision and the need for more information given in the antenatal period on parenting, baby care and relationships.	Strength: Compares ante- and postnatally. Weakness: Poor generalizability for other ethnic groups.

Table 1 ***(Continued).***

Author(s)/Year	Aim(s) of study	Study design, location, sample	Methods	Results	Strength(s)/ Weakness(es)
deMontigny, Girard, Lacharité, Dubeau, & Devault, (2013)	To identify the psychosocial factors associated with paternal postnatal depression.	Descriptive-correlational study Canada Sample size: 205 fathers	Compared psychosocial factors in fathers with and without a positive score for depression on the EPDS scale; Assessed through questionnaires.	Depression in fathers of breastfed infants is associated with the experience or perinatal loss in a previous pregnancy, parenting distress, infant temperament (difficult child), dysfunctional interactions with the child, decreased marital adjustment and perceived low parenting efficacy.	Strengths: Instrument design, appropriate, valid scales & questionnaires used, Canadian study Weakness: Homogeneous study (majority French speaking, Caucasian)
Giallo, Cooklin, Wade, D'Esposito & Nicolson (2014)	To examine whether parenting behavior mediated the relationship between fathers' postnatal psychological distress and emotional-behavioural outcomes for children at age 5.	Longitudinal study Australia Sample size: 2,025 fathers	Two-stage clustered sample design used. Data collected when the children were aged 0-12 months and 4 to 5 years old.	Relationship between fathers' postnatal distress and children's outcomes was mediated by parenting hostility (angry and frustrated reactions toward the child such as yelling, and this remained significant after controlling for fathers' concurrant mental health and mothers' postnatal mental health.	Strengths: large sample size, longitudinal study Weakness: data collection for children's behaviour involved using questionnaire answered by mothers (could be biased)

Table 1 ***(Continued).***

Author(s)/Year	Aim(s) of study	Study design, location, sample	Methods	Results	Strength(s)/ Weakness(es)
Gutierrez-Galve, Stein, Hanington, Heron, & Ramchandani, (2015)	To explore potential mediating and moderating factors that influence the association between paternal depression in the postnatal period and subsequent child behavioral and emotional problems.	Longitudinal study England Sample size: 13,822	Paternal & maternal depressive symptoms assessed with EPDS at 8 weeks after the birth of the child. Child outcomes assessed at 3.5 years old and 7 years old. Path analysis used to assess hypothesized mediators.	Family factors (maternal depression & couple conflict) medicated two-thirds of the overall association between paternal depression and child outcomes at 3.5 years Similar findings were seen when children were 7 years old Family factors mediated less than one-quarter of the association between materal depression and child outcomes No evidence of moderating effects of either parental education or antisocial traits.	Strengths: large sample size, instrument design (used well validated tools) Weakness: lacked first-hand observations
Kowlessar, Fox & Wittkowski (2014)	To explore the experiences of fathers during their first year as parents to fully capture their experiences and transition to parenthood.	Qualitative study UK 10 fathers, ages between 27 and 47 years old, White British	Interpretative phenomenological approach Fathers interviewed 7-12 months after the birth of their baby.	Early days of fatherhood, fathers felt helplessness, parented using trial and error, observed and followed mother-baby interactions, worked with their partners and gained confidence and regained control.	Weakness: lacks diversity in the sample (ie. different socioeconomic backgrounds)

Table 1 ***(Continued).***

Author(s)/Year	Aim(s) of study	Study design, location, sample	Methods	Results	Strength(s)/ Weakness(es)
Letourneau, Duffett-Leger, Dennis, Stewart & Tryphonopoulos (2011)	To describe the experiences, support needs, resources, and barriers to support fathers whose partners had experienced post-partum depression.	Qualitative (pilot study) Canada 11 fathers	Telephone interviews	Fathers experienced depressive symptoms including: anxiety, lack of time and energy, irritability, feeling sad or down, changes in appetite, and thoughts of harm to self or baby. Common barriers to accessing support including not knowing where to look for PPD resources and difficulty reaching out to others.	Strength: Canadian study Weakness: preliminary findings (pilot study)
Nishimura, Fujita, Katsuta, Ishihara & Ohashi (2015)	To examine the prevalence and relevant factors associated with paternal postnatal depression at four months postpartum.	Cross-sectional design Japan Sample size: 807 couples	Logistic regression analysis conducted	Paternal depression was positively associated with partner's depression and negatively with marital relationship satisfaction.	Strength: large sample Weakness: lacks diagnostic interview for depression (only EPDS used), poor generalizability

Table 1 ***(Continued).***

Author(s)/Year	Aim(s) of study	Study design, location, sample	Methods	Results	Strength(s)/ Weakness(es)
Serhan, Ege, Ayrancı, & Kosgeroglu (2012)	To determine the prevalence of postpartum depression and its connections in a group of mothers and their husbands.	Cross-sectional design Western Turkey Sample size: 110 couples	Data collected by the Mother Introduction Form, the Father Introduction Form and the EPDS used.	EPDS scores significantly higher in mothers who said that their relationship with their husbands were moderate or bad, who felt partly sufficient in baby care, who were in difficulty in the baby care, who felt anxious for motherhood and who did not receive support from anybody for baby care Depression found significantly higher in unemployed fathers	Strength: appropriate statistical tools used. Weaknesses: lacks discussion on overall strengths and limitations
Sethna, Murray & Ramchandani (2012)	To examine the speech of depressed and non-depressed fathers during father-infant interactions at 3 months.	Individually matched design UK Sample size: 38 94.7% white males	Depressed & non-depressed fathers matched on age & education. Major depressive disorder diagnosed by using DSM-IV Axis 1 disorders Assessments conducted in families' homes Videotaped interactions	Depression in fathers was associated with more speech focused on the paternal experience and less on the infants' experience. Depressed fathers' speech comprised more negative and critical utterances, compared with non-depressed fathers.	Strength: Research design (uses matching design), proper diagnosis of major depressive disorder. Weakness: Homogenous sample

Table 1 ***(Continued).***

Author(s)/Year	Aim(s) of study	Study design, location, sample	Methods	Results	Strength(s)/ Weakness(es)
Sethna, Murray, Netsi, Psychogiou & Ramchandani (2015)	To investigate the link between paternal major depressive disorder & the quality of father-infant interactions at 3 months postpartum, using an interview assessment of depression and an observed measure of parenting in 2 interactive settings.	Observational UK Sample size: 192 Mean age: 35.04 years 92% European	Home based assessment when child was 3 months old Fathers assessed for major depressive disorder Observations of father-infant interactions videotaped Paternal interaction measured for sensitivity, intrusiveness, remoteness, depressive affect	Paternal depression is associated with more withdrawn parental behaviour in interactions on the floor-mat play setting	Strengths: research design (reduced bias through inclusion of blind-coded, direct observations of fathers), data analysis (random coding for comparison) Weakness: homogeneous sample

Table 1 ***(Continued).***

Author(s)/Year	Aim(s) of study	Study design, location, sample	Methods	Results	Strength(s)/ Weakness(es)
Smith, Eryigit-Madzwamuse, & Barnes (2013).	To examine the relationship between paternal mental health and children's socio-emotional difficulties at the start of school, using a large sample and multiple informants.	Longitudinal community study UK Sample size: 705 parents	Assessed association between paternal mental health symptoms at 3 months postnatally and 36 months postnatally and children's socio-emotional and behavioural problems at 51 months as reported by mother, father and teacher.	Paternal postnatal depressive symptoms predicted more father-reported child problems at 51 months. Paternal mental health symptoms at 36 months predicted both materal and paternal reports of child problems at 51 months. Postnatal marital discord and paternal mental health problems at 36 months both mediated the relationship between paternal postnatal symptoms and later child emotional and behavioural problems.	Strength: large sample size. Weakness: lacks objective data, marital discord only measured at 3 months postnatally.

Table 1 ***(Continued).***

Author(s)/Year	Aim(s) of study	Study design, location, sample	Methods	Results	Strength(s)/ Weakness(es)
Thomas, Bonér & Hildingsson (2011)	To focus on fathers during and shortly after pregnancy.	Prospective, longitudinal study Sweden 827 fathers	Data collected from three questionnaires. Regression analysis used.	Fathers who were most concerned about their new role were those that were university educated, first time fathers, and those with financial worries. Lack of support from partners after the birth increased fathers' concern.	Strength: large sample size. Weakness: poor generalizability to non-Swedish speaking men.