

A Hermeneutic Review of Father Involvement in Pregnancy, Childbirth & Infancy

Abstract

Objective: To synthesize findings from the empirical literature on paternal involvement during pregnancy, birth and postpartum according to the Lamb model,

Data sources: Electronic databases including PubMed, Science Direct, PsycInfo, and Cinahl were searched for relevant studies dating from January 2005 to January 2015. Reference lists were also screened for relevant studies.

Study Selection: Fifty-one studies (22 quantitative descriptive, 24 qualitative descriptive, 5 mixed methods) were identified that met the inclusion criteria.

Data Extraction: A structured approach for integrative review according to Kable, Pich and Maslin-Prothero guided the data extraction. Studies who met the inclusion criteria were subsequently screened on methodology using the Critical Appraisal Skills Program. Data were organized under the following headings: author, year, country, study design, study findings, sample size and setting. The Lamb model describing the dynamics of paternal influence on children was used as a framework to categorize and analyze study findings.

Data Synthesis: Accessibility is associated with the actual presence of the father pre-, peri-, postnatal, and physical contact with the child. Engagement is correlated with attentiveness and concern, positive influence, and being part of decision making and caregiving processes. Responsibility goes beyond finance and incorporates organizing one's life with the explicit intention to share it with the child. Couple relationship, defined as the intimate relationship, its' strengthening and challenging factors during and after birth is another important factor influencing father involvement.

Conclusion: A large variety of paternal involvement is described in 51 studies. We carefully conclude that the Lamb model is a suitable framework for structuring several aspects of pre-, peri- and postnatal paternal involvement.

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Introduction

Fathers play an important role in the development of their children. Father involvement is situated at different domains, including child's academic achievement, mental health, socioeconomic status and adolescent relationships (Flouri, 2005). A range of benefits, such as an adequate fetal growth (Pagel, Smilkstein, Regem, & Montano, 1990), reduced risk of infant mortality (Alio et al, 2011) and cognitive improvement for preterm infants (Yogman, Kindlon, & Earls, 1995) are associated with father involvement. Early father–infant engagement is not only associated with later father involvement, but may also reduce the likelihood cognitive delay and promotes cognitive development of the child (Cabrera, Fagan, & Farrie, 2008). During infancy, fathers influence social, cognitive, and language skills of the child, which last far beyond the earliest years (Snow, Porche, Tabors, & Harris, 2007). Skin-to-skin care between infant and father positively influences crying behavior (Erlandsson, Dsnilna, Fagerberg, & Christensson, 2007). Father involvement is also correlated with reduction of pain, anxiety, and fatigue of the mother after birth (Kennell et al, 1991; Gay, 2004) and with a positive psychological transition to motherhood (Liamputtong & Naksook, 2003).

In these and similar studies father involvement is consistently regarded as an independent variable from which a number of favorable outcomes arise.

'Father involvement' as a dependent variable (what father involvement facilitates or inhibits, from personal, family and social context) has been the subject of research as well, though often in an indirect way. Several reviews highlight fathers' undefined roles and needs (Steen, 2012, Poh, 2014; Dellmann, 2004); the demanding intrapersonal and interpersonal change when heading into fatherhood (Genesoni & Tallandi, 2009; Dellmann, 2004) and the creation of a role of an involved father (Goodman, 2005). There are worldwide pertaining cultural variations concerning childbirth and paternal involvement (Kululanga, Malata, Chirwa, & Sundby, 2012). At the same time, acculturation processes due to immigration and globalization influence certain traditions (David, Aslan, Siedentopf & Kentich, 2009). It is striking that prejudice still exists around early father involvement and "good motherhood" sometimes remains restricted to caring and child-centered maternity (Allen & Hawkinds, 1999). In this rapidly changing context of gender roles and transitions, the role of the father and their need for support is often unclear to researchers and to fathers themselves.

There is little consistency in how father involvement has been conceptualized and studied (Zvara, Schoppe-Sullivan, & Dush, 2013), emerging the need for a framework that enables a logical mapping of components. An attempt was made by Cabrera, Fitzgerald, Roggman, & Bradley (2007) and Bond (2010). Based on the work of Lamb et al. (1987) they developed a heuristic model of the dynamics of paternal influences on children (Cabrera et al., 2007). It identifies an interacting set of variables that predicts father involvement and that influences father characteristics. The model describes three components: accessibility, engagement, and responsibility. Accessibility refers to the actual presence and immediate access to the child. Engagement is associated with the extent to which fathers share interactions in context of caretaking. Responsibility is defined as the arrangement for resources available to the child

(Cabrera & Tamis-LeMonda, 2013). Bond (2010) and Genesoni & Tallandi (2009) expanded the model with a fourth dimension in the perinatal period: couple relationship. Palkovitz (2002) describes father involvement on 15 cognitive, emotional and behavioral variables.

In this review, we use the Lamb model to look at studies concerning father involvement in pregnancy, childbirth and infancy as a dependent variable, hence identifying an actual state of play of father involvement in a perinatal context.

Methods

Search strategy and data sources

We conducted a systematic literature search for studies and reviews published between January 2004 and June 2015 in PubMed/Medline, Cinahl, Science Direct & PsycInfo using the following key words: (pregnancy OR childbirth OR infancy) AND (father involvement OR father engagement OR father participation OR paternal involvement). Reference lists of relevant papers and reviews were screened to obtain additional studies.

The search was limited to English-language articles. We also excluded studies with a specific biomedical approach and studies concerning teenage pregnancy due to the specific nature of these research fields. Studies examining father involvement as an independent variable were excluded, as the focus of this review is to synthesize studies and review researching influences on a fathers' perspective thus regarding father involvement as the dependent variable. Titles and abstracts of all studies were screened by all authors. Any disagreement between the authors was resolved by discussion or a third reviewer consultation.

Quality assessment

Traditional literature review conditions were respected, using the 12-step guideline by Kable, Pich & Maslin-Prothero (2012). Additionally, for the quality appraisal we only included studies that met the criteria formulated by the Critical Appraisal Skills Program (Briggs, 2006). When available, we recorded demographics and sample size of the study (see Table).

In addition, we focused on analyzing the withheld studies according to variations in approach, angle of vision, and interpretations beyond methodological flaws. Therefore, we call this paper an integrative or hermeneutic literature review (Thorne, 2004). We used the Lamb model as a framework to categorize the results in a qualitative way.

Results

The literature search revealed 5525 publications. All three authors screened a previously assigned research field (pregnancy, childbirth and infancy) on titles and abstracts. Due to the set-up of this search strategy, some duplicates could be found at this point and were withdrawn. Of these 5525 records, 5424 did not meet the selection criteria. The remaining

101 publications were screened full-text. An additional total of 16 cross-references were added. This process ultimately left 51 unique studies for a qualitative review (See Figure 1).

Accessibility in pregnancy

Accessibility during pregnancy refers to the father being physically present, accessible and available (Alio, Lewis, Scarborough, Harris, Fiscella, 2013). A British study shows a majority of fathers is present for pregnancy tests or confirmation, for one or more antenatal checks (Redshaw & Henderson, 2013). In a Spanish inquiry, most fathers attend medical checks a while a minority of them attend prenatal education (Marotto-Navarro, Pastor-Moreno, Ocaña-Riola & Marcos-Marcos, 2012). A survey in El Salvador shows that 57% of fathers attend prenatal care visits (Carter & Speizer, 2005). Less than half of Nigerian husbands accompanies their wives to antenatal clinics (Olayemi, Bello, Aimakhu, Obajimi, & Adekunle, 2009; Iliyasu, Abubakar, Galadanci, & Aliyu, 2010). A qualitative study from Singapore reveals that only few fathers attend the antenatal classes as they aren't aware of its existence, while fathers who attend those classes feel they are too theoretical (Poh, Koh, Seow, & He, 2014). In Kibibi, Uganda, most men feel they simply do not have time to attend antenatal care. It appears that men are, for the most part, unaware of the beneficial impact their presence might have. (Singh, Lample, & Earnest, 2014).

Nigerian mothers having their first baby are more likely to have their partner present when pregnancy is confirmed, for antenatal checks, for scans and to attend antenatal classes (Olayemi et al., 2009).

Accessibility in childbirth

Accessibility during childbirth is regarded as physical presence of the father in the birth room and as physical contact with the newborn. Some transcultural differences regarding paternal presence in the birthing room can be pointed out. In Scandinavian studies, presence seems so obvious that it remains out of the scope of investigation (Backström & Wahn, 2011; Hildingsson, Cederlöf, & Widén, 2011; Johansson, Rubertsson, Rådestad & Hildingsson, 2012). European ranges of paternal birth attendance vary between 76% in Poland (Wielgos, Jarosz, Szymusik, & Myszevska, 2007), 67,3% in Spain (Marotto-Navarro et al., 2012), 54,3% in Greece (Sapountzi-Krepia et al., 2010) and 40% in Georgia (Pestvenidze & Bohrer, 2007). David & Kantenich (2009) notice an increase of attendance in a Berlin maternity ward by Turkish and by German men in the last decade with respectively 73 and 83%.

In developing countries cultural habits, religious convictions and practical objections influence fathers attending birth. Iliyasu et al. (2010) report that 18,7% of the Malawi fathers accompany their spouses having an uncomplicated birth. In Nepal, husbands are traditionally prohibited from entering delivery rooms and only in recent years urban society changes make tertiary level hospitals allow fathers in the birth room (Sapkota et al., 2012). Carter & Spizer (2005) report paternal delivery attendance at 81% in El Salvador.

Presence in the birth room is often correlated to education level of the father (Wielgos et al., 2007; Kululanga et al., 2012) except in a Salvadoran study (Carter & Spizer, 2005).

Accessibility also refers to the fathers' first physical access to the child: finally 'the kicking became a real person' (Erlandsson & Lindgren, 2009). Fathers report an intense feeling of reality while witnessing childbirth (Premberg et al, 2011; Kululanga et al., 2012). Staying with the partner and baby facilitates the sense of becoming a father (Johansson, Hildingsson & Fenwick, 2013).

Accessibility during infancy

During the infancy period, accessibility is conceptualized as the presence and availability to the child, regardless of the quality of interactions between father and child. The primary barrier mentioned concerning father involvement among fathers is employment. Some fathers compensate this by increasing their involvement on weekends. However, lack of day-to-day contact does create feelings of insecurity for fathers when they return home from work and interact with the child (Garfield et al., 2006).

Parental leave has a major influence on accessibility for Swedish fathers, as they often share infant caring (Fägerskjöld, 2008). Decisions on the extent of parental leave depends on the family's financial position, the mother's and employer's attitude (Ny et al. 2008).

Marital status in resident fathers is also studied regarding accessibility during infancy. Cohabiting fathers are more involved with children than previously married fathers (Laughlin, Farrie, & Fagan, 2009; Cabrera, Hofferth, & Chae, 2011). Garfield (2006) reports that about half of non-married fathers feel marriage is not essential. In contrast, about half of married fathers focus on the importance of modeling behavior toward mothers and work-family balance.

Engagement in pregnancy

During pregnancy, engagement refers to interactions towards the mother and it requires active participation in prenatal activities (Alio et al., 2013).

Swedish men view pregnancy as a shared experience and want to be part of the process. (Fenwick, Bayes & Johansson, 2012). An American study emphasizes the fathers' need to be an active participant in the pregnancy process, providing physical and emotional support, encouraging the mother, understanding the influence of hormones, empathizing with her and being patient with her. (Alio et al., 2013). In an American study by Cabrera et al (2009), almost all Mexican American and Latino fathers engage in prenatal behaviors that measure visual knowledge of child. Kaye et al. (2014) confirm that, in Kenia, proof of the baby's physical existence during antenatal visits accelerate and enhance the ability to connect and actively engage.

Regarding childbirth education, fathers experience it as a mental preparation, though they forget most of the content after delivery (Premberg, Hellström, & Berg, 2008). Ny et al. (2008) notice that immigrant men in Sweden prefer parental education in groups, although bad experiences from other men can be frightening. In Uganda, men express an interest in knowing more about pregnancy and childbirth (Singh et al., 2014). Thai expectant fathers are willing to participate in prenatal courses with their wife. But some feel it does not fulfill their own needs, due to a didactical approach in which men are merely a supporter of their pregnant partner (Sansiriphun et al., 2010). This lack of inclusion, involvement and information for expecting men is confirmed by Deave & Johnson (2008). First-time fathers in this study describe themselves as bystanders: more detached than they expected or wanted to be.

According to Redshaw & Henderson (2013), British fathers of primipara are more likely to access information, while men living in deprived areas are more likely to attend antenatal checks and less likely to involve in obtaining information or decision making (Redshaw & Henderson, 2013).

Tamis-LeMonda, Kahana-Kalman & Yoshikawa (2009) mention most fathers speak to their partners about pregnancy and feel the baby's movements (95%), whereas only 16% attended Lamaze or pregnancy classes. The researchers report more Mexican and Dominican fathers discuss pregnancy with mothers than African American fathers (resp. 96, 100 and 88%). This was confirmed by Cabrera et al. (2009), showing a majority of fathers also participate in prenatal activities that support their partner (e.g. discuss the pregnancy with child's mother, buying things for the baby during pregnancy) with the exception of attending birthing classes (Cabrera et al.

Engagement during birth

During birth, engagement is conceptualized as a father's active participation in the laboring process. Levels of participation strongly differ in scientific literature. Being part of the laboring couple, to be important matters to fathers-to-be (Backström & Wahn, 2009). Fathers want to participate more than within the opportunities they felt they were given (Hildingsson et al., 2011). Feelings of dissociation often emerge during the birth process as fathers find themselves marginalized (Longworth & Kingdon, 2010; Dolan & Coe, 2009). Even more so in surgical birth, when fathers fulfill their self-claimed role as an observer (Longworth & Kingdon, 2010). Kaye (2007) shows men in Uganda have feelings of uncertainty during childbirth. Contemporary social expectations encourage male participation, but cultural and social values are unclear regarding this expectations. Kululanga et al. (2012) notice that Malawian men act as advocates for their partners, but feel helpless and unprepared at the same time.

In a Greek study, only a minority of fathers is encouraged to express their feelings or to inform about the progress of labor (Sapountzi-Krepia et al., 2010).

Although attentiveness and concern are idealized as masculine identities in the context of labor, men are able to draw identifiable markers of masculine practice during childbirth: they resemble the instrumental, active role they have constructed for themselves (Dolan & Coe, 2011). Cutting the navel cord is an instrumental act that overcomes the imaginary barrier. Brandao and Figueiredo (2012) show that cord cutting by the father significantly correlates with the bonding scale between father and child.

During labor, it is important to keep a cool head, to have a general view of the process and to communicate when pain control is applied (Hasman, Kjaergaard & Esbensen, 2014). Fathers have a role as holder of personal knowledge about their partner towards healthcare professionals (Longworth & Kingdon, 2010). This knowledge helps fathers soothe and reassure the laboring woman (Premberg et al, 2010). When needed, they act as an interpreter (David & Kentenich, 2009). They take an attitude radiating security, covering up or neglecting negative information (Backström & Wahn, 2009). Greater involvement in the process is associated with epidural analgesia, reducing paternal stress (Capogna, Camorcia & Stiparo, 2006). In planned home birth, being a supportive father is facilitated by the home environment and by the absence of unknown persons. Fathers feel in control of what happens instead of being subject to the demand of others (Lindgren & Erlandsson, 2010).

Mixed conclusions were found concerning involvement in the decision making process. Longworth & Kingdon (2010) describe fathers are pleased to be included in the decision making process, while Hildingsson et al. (2011) shows opportunities for decision making were higher estimated than needed. In complicated childbirth, involvement in decision-making is deficient in 40% of elective surgical birth and in 33% of cesarean sections (Johansson, Rubertsson, Rådestad & Hildingsson, 2012).

A Swedish study (Johansson & Hildingsson, 2013a) reports that being treated with respect and empathy helps fathers to cope with the situation of labor and birth. A positive experience is related to satisfaction with the midwife's presence (Hildingsson et al., 2011). Fathers don't want to be left alone with overwhelming feelings when having a sense of helplessness (Backström & Herfelt Wahn, 2009). Fathers are perceived to provide care for the partner and willing to support and therefore feel the need for support themselves (Kaye et al., 2014). Schytt & Bergström (2013) report that men of older age are more in need of support by a midwife.

Engagement during infancy

A father's engagement in the first months after birth refers to his experience of direct contact, caregiving, and shared interactions with his child.

In Sweden, fathers estimate their performed care equally to the mother when both parents were at home, except for the breastfeeding (Fägerskjöld, 2008). However, they still see themselves as an important complement to the mother. Tanzanian fathers testify how they strive to respond to partners' and infants' needs in the early postpartum (Mbekenga, Lugina, Christensson, & Olsson, 2011).

Prenatal paternal involvement is associated with fathers' direct engagement in child care (Zvara et al., 2013). Some studies reveal the influence of caregiving by the child's gender. Some American fathers feel uncomfortable when caring for girls, performing child care activities as bathing and diaper changing (Garfield, 2006). These findings could not be replicated in Sweden by Fägerskjöld (2008).

When fathers engage with their children in ways that support their healthy development, they also increase their own enjoyment of and commitment to their infants, which can lead to long-term involvement (Cabrera et al., 2008). On the other hand, some fathers lack confidence in parenting skills, which results in lower involvement levels (Garfield, 2006a).

Regarding skin-to-skin contact between father and the newborn, Guitiérrez et al. (2012) determine fathers' experiences as being very emotional and with a real impact. Especially first-time fathers describe skin-to-skin contact as a first step toward taking on the role of father (Guitiérrez et al., 2012).

The two most frequent actions of caregiving for both parents are cuddling or rocking and carrying in arms. Dayton et al. (2015) show that fathers do not engage more frequently in so-called active strategies (carrying in arms, baby slinging, ...) than mothers. Fathers however have fewer soothing strategies within their repertoires. Nonetheless, those fathers who are equally involved in soothing, report feeling more efficacious as a father at 4 and at 8 months (Dayton, Walsh, Wonjung & Volling, 2015).

Caregivers also engage with their infants in verbally stimulating ways. When fathers use a more diverse vocabulary in interactions with their infants at 6 months of age, their children develop more advanced communication skills at 15 months (Pancsofar & Vernon-Feagans, 2010). Although the coefficients were small, American fathers with a higher college education read, sing songs and engage in verbally stimulating activities with their infants at higher levels than fathers who only completed high school (Cabrera et al., 2011).

Some ethnic differences are found concerning the experience of fathers when caregiving. Almost all fathers report being engaged with their infants in physical play and caregiving activities, but African American and Latino fathers engage more in these activities than White fathers. These group differences even remain after controlling for fathers' human capital, infants' age, fathers' working hours, and couple conflict (Cabrera et al., 2011).

Responsibility in pregnancy

Responsibility consists of the arrangement for resources available to the child, and plans, thought processes, household errands by the parents (Cabrera et al., 2008).

In Alio et al. (2013) the concept of responsibility is manifested partially to the father as a caregiver, provider, nurturer and protector. In focus groups fathers report the need of being a protector who does whatever is necessary to ensure a safe journey of the baby and the mother, including financial support (Alio et al., 2013).

Finances are reported by several authors as a capital factor. A study of 275 Turkish husbands shows that couples with high educational levels, a long marriage, an average income level and health insurances have positive effects on the functional status of husbands (Sevil & Özkan, 2009). Oleyami et al. (2009) report nearly all Nigerian husbands (450, i.e. 97.4%) encourage their wives to attend antenatal clinic, pay for the antenatal service bills (96.5%), pay for transport to clinic (94.6%) and remind their partners of their clinic visits (83.3%). In Uganda, men are responsible for the financial arrangements concerning delivery and postnatal care (Singh et al. 2014). In the last weeks of pregnancy almost all Thai expectant fathers plan for child care and post-partum care of their wife (Sansiriphun et al., 2010).

Responsibility goes beyond finances. In Uganda, responsibility means concern and the maintenance of a connection with the pregnant woman regardless of the partnership status (Kaye et al., 2014).

In Nigeria, expecting men encourage their wives to take adequate nutrition and help with household chores during pregnancy (Oleyami et al, 2009). Some men in Uganda make sure that women are eating properly, not straining themselves physically and take care of the children during labor (Singh et al. 2014).

Thai expectant fathers' report they experience an urge to 'protect the unborn baby' by nourishing, supporting and protecting them from harmful things during their first pregnancy. They also modify their daily behaviors throughout the pregnancy. They want to decrease their wife's workload, make plans for saving money and most fathers don't have intercourse during the pregnancy, due to a fear of harming the unborn baby. Thai men, following traditional beliefs, stop killing any animals because they want to protect their beloved baby in any way (Sansiriphun et al., 2010).

Responsibility in childbirth

Though ideals of hegemonic masculinity shift in response to pregnancy rather than childbirth, birth makes fathers take possession of a life they intend to share with the child and assume their duties (Dolan & Coe, 2011). Some fathers feel confident while others question their abilities as a father (Erlandsson & Lindgren, 2009). Preparations for labor consist in reading literature, talking to friends or professionals and talking to their partner (Backström & Wahn, 2011). Fathers read less about analgesia than mothers do (Orbach-Zinger et al., 2008). Wielgos et al. (2007) identifies differences in the source of knowledge between participating and non-participating fathers in labor. Non-participants report their source was mainly their partner and media, while participants report taking classes and talking to the medical staff. Deave & Johnson (2008) register poor preparation for fatherhood: the main source of information is from discussion with partners, leaflets and books. Participants report wanting information about their role as a father and practical aspects about caretaking.

Information and the way it is conveyed during the birthing process is a complex topic. Men attempt to interpret gestures and facial expressions while they are unable to comprehend the professionals' mutual dialogue (Premberg et al, 2010). In complicated childbirth men

request continued care after discharge in order to resolve remaining questions (Lindberg & Engström, 2012). Some studies show that few and inadequate information is given to men (Kaye et al., 2014). Men want education and full explanation of what is expected from them. Respondents report that, while doctors know what they were doing, they make men passive recipients of care. Research in a Nigerian community, where few men were present in the birth room, shows that the majority of male respondents however take responsibility by providing money for transport and drugs (Iliyasu et al., 2010).

Responsibility during infancy

After birth, responsibility refers to arrangements for resources, to making plans and household errands. Fathers acknowledge that mothers and fathers play complementary roles and approach child care responsibilities differently. The fact of being a male role model is important to Swedish fathers from infancy on (Fägerskjöld, 2008). According to Garfield (2006), American fathers describe they have to “work a bit harder, to show the baby you are there”. About half of the fathers differentiate their child care duties from those of the mother. Finally, about half of fathers see discipline, even early in infancy, as one of their major responsibilities (Garfield, 2006). In Tanzania, fathers express their concern over increased household chores, financial expenditure and generally increased responsibilities as well (Mbekenga et al., 2011). In a Spanish study, men with higher levels of education, who were not married, with a partner in full-time employment, born in Spain and who attended childbirth classes are more involved in care-taking (Marotto-Navarro et al., 2012). Messages contradicting between professionals and peer support persons leave Tanzanian fathers uncertain, being trapped between traditional and modern medicine (Mbekenga et al., 2011).

Fathers increasingly show responsibility in attending well-child visits. (Garfield & Isacco, 2006a). Participating fathers report different reasons: gathering information about their child, supporting their child, asking questions and expressing concerns and gaining firsthand experience of the doctor or nurse. Negative experiences are reported when fathers receive a lower quality of service compared with the mother (Garfield, 2006a). An Australian online chat room for new fathers reveals that public perceptions of fatherhood have not kept up with changing practices, and shows the need to make fathering more visible (Fletcher & StGeorge, 2011).

Couple relationship in pregnancy

Couple relationship is the fourth component of involvement, comprehended as a father’s support for the mother, in order to support the baby. However, most authors also feature data about the couple relationship influencing father involvement and vice versa.

According the results of Alio et al. (2013) male participants emphasize the relationship with their pregnant partner determines the level of their involvement during the pregnancy. An important concept raised in focus groups was a loving relationship between the mother and the father. Participants stressed the significance of communication between both partners.

Findings of Cabrera et al. (2008) suggest that non-married fathers who are involved early on with the mother and child during pregnancy are placed on a positive trajectory of increased commitment to the mother and subsequent higher engagement with their infant.

Couple relationship in childbirth

Childbirth can strengthen the relationship of the couple, Lindberg & Engström (2012) report, if adequate communication is assured. Although the appearance of the infant is experienced as the most precious moment, an improved relationship is described as the best outcome of birth (Longworth & Kingdon, 2010). Premberg et al. (2010) present it as follows: both partners experience childbirth as a mutually shared moment. Men have an intention of supporting and thereby strengthening their partners. The woman's ability to endure labor pain affects the man's experience. (Premberg et al., 2010). In the homebirth context, this finding presents itself even clearer: a father's birth experience is depicted as a dance in which he is the follower and listens carefully with all his senses to the woman in childbirth (Lindgren & Erlandsson, 2010). David & Kentenich (2009) confirm that father participation is a motive to solidify the partnership for both ethnic German and Turkish fathers. In Uganda, participation in the birthing process is considered as a manifestation of maturity and commitment to the relationship (Kaye et al., 2014).

Childbirth can also be a challenge to the relationship. The antenatal recognition that relationship difficulties may occur during the birthing process is beneficial for the later couple relationship (Deave & Johnson, 2008). In complicated childbirth, fathers struggle to support their partners. Presented with a double care situations (mother and child) makes fathers feel torn between being a partner to the woman and being a father to the infant. (Lindberg & Engström, 2012)

In a Polish study, 5.8 % of fathers report that the main reason to resign for attending childbirth is that it could have consequences on their sexual life (Wielgos et al., 2007).

Couple relationship during infancy

Not living up to the mothers' expectations is a concern for some non-married fathers. Some fathers feel mothers do a better job at raising children (Garfield, 2006). There is some evidence that hostility between parents has a direct influence on the time that fathers spend engaging with their children in various activities (Cabrera et al., 2007). Paternal involvement in child health care increases when fathers are encouraged by mothers and when holding more non-traditional beliefs about gender roles (Zvara et al., 2013).

Emotional change in relationship during postpartum in Swedish couples is influenced by lack of time for the couple themselves and tiredness because of lack of sleep (Fägerskjöld, 2008).

Discussion

The Lamb framework as a template

The Lamb model is frequently used as a reference when studying father involvement in childhood. Pleck (2012) emphasizes the importance of distinguishing between father identity as a role (the importance of being a good father) and identity as specific domains within fathering: the importance of being a good caregiver, a protector, etc. (Pleck, 2012). As shown in this review, describing father involvement in different categories offers a key to specification of father's identity in the perinatal period as well. The procedure explicates different levels of involvement and offers a way to facilitate different levels of interventions.

Accessibility as the most basic component embraces a father's presence at prenatal activities, labor, delivery and infancy. Inaccessibility can be due to practical circumstances such as privacy reasons (Iliyasu et al., 2010) and absence of cohabitation (Laughlin et al., 2009). Pressure of role models in both presence (Fägerskjöld, 2008) and absence (Singh et al., 2014; Olayemi et al., 2009) has a more nuanced influence on a father's access. Inconsistency highlights the need for appropriate professional actions.

Engagement requires active participation from fathers during pregnancy, childbirth and infancy. Engagement appears to be facilitated by concrete actions: looking at the ultrasound image (Cabrera et al., 2009), cutting the cord (Brandao & Figueiredo, 2012), having skin-to-skin contact (Gutiérrez, Del Rosario Ábalos Pérez, Aguilera, & Moreno, 2012), cuddling the newborn (Dayton et al., 2015) and different kinds of care. However, emotions play an important role in the possibility to live up to the engagement. Men are caught in an emotional roller-coast, between empathy (Hildingsson et al., 2011), marginalized positions (Deave & Johnson, 2008; Longworth & Kingdon, 2010) and a new masculine identity in the context of childbirth (Dolan & Coe, 2012).

At a narrow level, responsibility means arranging goods and services for the child. At a broader level, it is interpreted as the role of overseeing the provision of care, making sure that the child is taken care of (Pleck 2012). Looking for the right information (Backström & Wahn, 2011; Deave & Johnson, 2008) and attending well-child visits (Garfield) are examples of being a responsible father. Caregivers' intentions are less described in research regarding paternal responsibility in the perinatal period. Fatherhood is considered as socially structured, shaped in the interplay between different relations and existing structures in a man's life (Plantin, Olukoya & Ny, 2011). Caretakers must be aware that every father has his own 'discourse' initiated by their specific frame of reference (Dienhart, 1998, p. 10). This is reflected in the way he is taking responsibility from pregnancy to childhood and can be a good start for any targeted program to be successful. As proposed in the review on early week interventions by St. John et al (2004), health practitioners should encourage new fathers to reflect on the type of father they want to be. The gendered nature of support implies the need for alternative sources of information and sharing of experiences.

The fourth dimension: the couple relationship

Adding a fourth component to father involvement, couple relationship, seems appropriate. Christie et al. (2008) describe that infant nurture and life changes trigger families' coping and adapting resources while managing the present and investing in the future. From the moment of birth, father involvement is split between two interdependent relationships. Presented with two care situations (mother and child), fathers report feeling torn between being a partner and being a father (Lindberg & Engström, 2012). However, influence of couple relationship on accessibility, engagement and responsibility starts long before birth: the strength of the couples' bond before (Cabrera et al., 2008) and during (Alio et al., 2013) pregnancy modifies father involvement. The experience of childbirth strengthens the couple relationship (Premberg, Lindgren & Kaye, 2011). Father involvement is definitely influenced by maternal actions. Maternal gatekeeping, a situation in which the mother's caring behavior undermines the father's role (Fagan & Barnett, 2003) is associated with decreased paternal involvement (Schoppe-Sullivan, Brown, Cannon, Mangelsdorf & Sokolowski, 2008). It is found in infancy by Zvara et al. (2013). The complexity of this issue emerges the examination of the role of both mother and father in gatekeeping during pregnancy and childbirth.

Emphasis on cultural spectrum

In this review, studies from around the world concerning father involvement are lined up next to each other. Although this cross-section provides insights about the state of play concerning perinatal father involvement, we do not confess to essentialism (Clycq, 2009) as if culture includes a fixed and eternal core, and people are passive objects of that culture instead of its' reproducers and transformers (Brubaker, 2006). During the transition to fatherhood, men find themselves in so-called 'situational ethnicity': they regard themselves depending on and will often act according to the context they live in (Mason, 2000). Research in the area of father's engagement with pregnancy and childbirth has mainly focused on white middle-class men and has been mostly qualitative in design (Redshaw & Henderson, 2013). Following Dein (2006), we argue there is a need to move beyond concepts of race and ethnicity. Instead we suggest examining fathers' social constructions and components of father involvement during lifetime experiences such as pregnancy and new fatherhood.

Conclusion

A large variety of perinatal father involvement was found in 51 recent studies. The transition to fatherhood through pregnancy, childbirth and infancy is a key period for father involvement. A standard model on the needs for active paternal involvement desires a well-designed and contextually adapted program. Lambs' model, including engagement, accessibility, responsibility and couple relationship as components of father involvement provides a suitable framework for research.

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Table 1. Study Methods and Population in Studies examining Father Involvement during Pregnancy, Childbirth and Infancy.

A Hermeneutic Review of Father Involvement in Pregnancy, Childbirth & Infancy

Sapkota (2012)	In the Nepalese context , can a husband ' s attendance during childbirth help his wife feel more in control of labour	Quantitative approach through cohort intervention/control study using socio-demographic questionnaire, recording sheet, labour agency scale and vision analogue scale	n= 30 mate prese fema (n= 1 105)
Sapountzi-Krepia (2010)		Quantitative approach through statistical data analysis using Kuopio instrument for fathers	n= 41 one y acce mate follow
Schytt (2014)	First-time fathers ' expectations and experiences of childbirth in relation to age	Quantitative approach through secondary analysis of randomised controlled trial on SES, the Cambridge Worry Scale, W-DEC A on fear and a categorised follow-up questionnaire	n= 77 mid-p postp anter
Sevil (2007)	Fathers' functional status during pregnancy and the postnatal period	a sociodemographic survey and the Inventory of Functional Status - Fathers	n= 24 fathe prima
Singh (2014)	The involvement of men in maternal health care: cross-sectional, pilot case studies from Maligita and Kibibi, Uganda	focus group discussions and semi-structured questionnaires	n= 23 pregn birth husb age = Parti using oppo throu
Snow (2007)			
Tamis-LeMonda (2009)	Father involvement in immigrant and ethnically diverse families from the prenatal period to the second year: prediction and mediating mechanisms.	Interview, prenatal/postnatal 1 and 6 month follow-up (daily diary interview)/14 months	n= 73 n= 65 n= 66 immig hospi birth
Wielgos (2007)	Family delivery from the standpoint of fathers — Can stereotypes of participant or non-participant father be fully justified ?,	Quantitative approach through survey data analysis of Questionnaires for participant and non-participant fathers	n= 50 birth city n
Yu (2012)	Prenatal predictors for father-infant attachment after childbirth	Self-completed questionnaire (SSS, MIS and CHQ) during the third trimester; PAI administered after childbirth; repeated measures design	n= 19 fathe older no p unde probl healt at a n Kaoh