Factors influencing whether or not male partners from low and middle income countries attend childbirth: a mixed methods systematic review

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Research article

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Abstract

Currently, there is a global drive to promote respectful maternity care including a woman's right to have a companion of her choice during labour and birth. This may include but is not limited to doula, female relatives or friends, and male partners. Evidence suggests that male partners' attendance at childbirth, when it is a woman's choice, may be associated with a positive emotional experience for the woman. However, these potential benefits were reported from studies conducted in high income settings only. There is limited information about male partners' attendance at labour and birth in low and middle income countries (LMICs). Although male partners' attendance at childbirth is being implemented in a few health facilities in LMICs, there is a paucity of evidence on the acceptability and feasibility of this practice and the moderators of implementation in the context of LMICs.

Background

Currently, there is a global drive to promote respectful maternity care (1, 2). An important component of respectful maternity care is a woman's right to have a birth companion of her choice, who may be a doula, female relative, friend, or spouse/partner (3). A Cochrane review of 26 trials from middle and high income countries found low quality evidence that, compared to women without continuous labour support, women who received continuous labour support had shorter labour duration, were more likely to give birth without any medical intervention and to report a satisfying childbirth experience (4). Key elements of labour support encompassed continuous presence, reassurance, praise, information about labour progress, advice about coping techniques, comfort measures, and advocacy (4). This Cochrane review combined studies in which labour support was provided by different people (e.g. hospital staff, doulas, female relatives, friends, and male partners), and therefore we do not know the relative effectiveness of support, for example by the woman's male partner compared to support by female relatives. The Cochrane review also did not identify any trials from low income countries. In this paper the term 'male partner' is used to include any male companion chosen by the woman, such as spouse, male partner/friend or father of the baby.

A metasynthesis that included 12 studies, of which six were from low and middle income countries (LMICs), indicated that the presence of a birth companion reduced labouring women's feelings of loneliness and provided reassurance (5). Furthermore, studies conducted in Lebanon, Syria, Egypt, Nepal, and Malawi included in the metasynthesis found that women who were supported by female companions felt their companions provided most of their emotional, physical, and informational needs (5). Some women said they preferred the presence of the male partner during childbirth, while others felt embarrassed by their presence (5). However, this metasynthesis only included studies of the views of women; the perspectives of partners and health personnel were not covered.

The World Health Organization (WHO) acknowledges that male partners can contribute to a woman's positive experience of pregnancy, childbirth, and the postnatal period (6). While in high income settings male partners' attendance may be embedded in cultural norms, in LMICs, the practice is uncommon due to a number of factors. Cultural norms in more traditional societies may discourage male partners from attending childbirth (7). Moreover, lack of privacy within maternity wards prevents facilities from permitting male partners' attendance (8). However, hospitals' encouragement and facilitation of male partners' attendance at childbirth remains an understudied area in the context of LMICs. For example, it is unclear whether or not male partners' attendance at labour and/or birth would be an acceptable and feasible practice to implement in LMICs health facilities if a woman prefers this. It is also not known which individual, clinical, contextual, and cultural factors are likely to influence male partners' attendance at childbirth in LMICs. Further exploration is needed of the factors influencing whether male partners are able to attend childbirth in LMICs when they are the woman's preferred birth companion. We conducted a systematic review to investigate the factors that influence male partners' attendance at childbirth in LMICs.

Review question

Methods

Eligibility criteria

Published and unpublished primary studies using qualitative, quantitative or mixed methods were eligible to be included in the review if they: a) were conducted in a LMIC; b) reported data on factors influencing male partners' attendance at labour and birth from the perspectives of male partners, childbearing women or healthcare professionals; c) were published in English; and d) were published from 2002 onwards. For the purposes of the review, we defined male partners' attendance at childbirth as follows: 1) male partners accompanying the woman to the health facility but not being physically present during childbirth; or 2) male partners accompanying the woman and being present at any stage of childbirth or throughout labour and birth.

Reviews were excluded but were used to identify relevant primary studies. In this review, the term LMICs encompassed low income, lower middle income, and upper middle income countries as defined by the World Bank's country classification in 2017 by income levels (9).

Search strategy

The searches for Phases 1 and 2 were conducted separately using the same search terms in the following electronic databases: CINAHL, MEDLINE, ASSIA, PsychoInfo ProQuest, Web of Science, SCOPUS, and Google Scholar. The search for Phase 1 was conducted in May 2016 and updated in November 2016 and December 2018. The search for Phase 2 was conducted September – November 2016 and updated in December 2018. The search strategy was saved on CINAHL, MEDLINE, and Google Scholar. Alerts for each database were created to update search outputs until December 2018. Whenever papers were released, they were screened to identify eligible studies that were added to the review.

Study selection

Search results were exported to Endnote reference management software version 7 (10). At each phase, after the de-duplication process, records were evaluated by title and abstract to identify potentially relevant papers. One reviewer (TCU) screened all the search output and a 10% sample was double-checked by second reviewers (AM or HW) to ensure the screening process was rigorous (11). Where there was not enough information, or the paper was potentially eligible, the full text article was assessed against the inclusion criteria. Articles about which there was uncertainty were discussed by the review team and consensus reached.

Data extraction and quality appraisal

Relevant data including the objective of the study, setting, participants, sample size, recruitment and characteristics, and method of data collection and analysis were extracted by one reviewer. Quality appraisal of qualitative studies used the Critical Appraisal Skills Programme (CASP) checklist (12). For the quality assessment of both quantitative and mixed methods cross-sectional studies, AXIS, an appraisal tool for surveys, was used (13). The quality of experimental and quasi-experimental studies was appraised using SURE checklist (14). Studies were critically assessed by TCU.

Findings

Search outcomes

The search for Phase 1 yielded 3,070 unique titles which were screened to identify 33 eligible papers as presented in Figure 1.

Study characteristics

This systematic review included 68 studies: 33 qualitative, 30 quantitative, and five mixed methods studies provided quantitative data (see table 1 and 2 on the attached document for details). Studies included in this review were published between January 2002 and December 2018. Studies were conducted in 27 LMICs, including seven low income countries (n=19 studies), 12 lower middle income countries (n=31 studies), and eight upper middle income countries (n=18 studies) The studies focused on a range of topics including barriers to male partners' involvement in maternal health, male partners' attendance and their experiences of childbirth, women's perceptions of male partners' presence, health providers' attitudes to male partners' attendance, women's childbirth experiences, and the effects of male partners' presence at childbirth. Included studies involved 18,045 participants; including 5,517 men, 10,471 women, 1,188 health providers, 851 female birth companions, 11 traditional birth attendants, six religious leaders, and seven village leaders.

Summary of the quality of studies

In Phase 1, all qualitative studies stated their aims clearly. All articles explicitly described the inclusion criteria. Methods used to generate data were extrapolated in every study. Two studies (19, 20) did not discuss consent, or other ethical requirements of the research conduct. Analytical approaches and evidence to support the findings were provided in all except in one study (21). Eleven papers did not discuss the credibility of their findings (19-29).

In Phase 2, 18 out of 32 surveys did not justify the sample size (30-46). Five studies (34, 40-43, 47) lacked details of the inclusion criteria. Ten studies reported measures undertaken to minimise non-response (36, 39, 47-54). All except one study (45) reported how outcome variables reflected their aims. However, in seven studies the outcome variables were measured using non-validated instruments (30, 32, 33, 42, 47, 49, 50). Eight studies did not discuss ethics and consent (33, 40-42, 44, 50, 51, 55). Unlike some surveys, experimental studies provided sufficient information about the recruitment process.

Synthesis of the findings

After the analysis of the articles, themes from Phase 1 and Phase 2 were grouped into three broad categories: motivators, facilitators, and barriers that may determine male partners' attendance at childbirth in LMICs (Table 3). Whilst the motivators to male partners' attendance are the perspectives of only male partners, the facilitators and barriers were from the perspectives of male partners, pregnant women, health professionals, and community leaders.

Table 3: Themes that emerged from synthesised studies

Broad category	Themes	Obtained from Phase One	Obtained from Phase Two
Motivators	To be there for their partners ü	ü	
Facilitators	Women's wish for male partners' presence ü	ü	
	Support from healthcare professionals ü		
	Couples' current relationship and closeness ü	ü	
	Educational attainment	ü	
	Positive attitudes towards male partners' attendance	ü	
	Men accompanying their partners to antenatal care visits	ü	
Barriers	Restrictions imposed by health facilities ü	ü	
	Professionals' negative perceptions	ü	
	Sociocultural barriers ü	ü	
	Lack of information and preparation on childbirth ü		
	Men's negative experiences ü		
	Women's opposition ü	ü	
	Lack of privacy ü		
	Work-related constraints ü	ü	
	Family structure influence ü	ü	

1. Motivators to male partners' attendance

Motivators of male partners' attendance at childbirth were garnered from both male partners who attended childbirth and those who had not yet attended labour and/or birth. Male partners' presence was viewed as an important practice to uphold.

Some male partners expressed their intention to 'be there for their partners' as reported in 19 studies, including 13 qualitative studies and six quantitative studies (22, 24, 27, 39, 46, 52, 56-68). Reasons for attendance varied depending on the country's societal and contextual understanding of male partners' role during childbirth. In a study from Brazil, fathers said they attended childbirth because they thought it was their right to participate (56). In contrast, men from studies conducted in Uganda, Rwanda, and Tanzania held the view that male partners would not necessarily be physically present at childbirth, but should stay within the premises to receive updates on the woman's labour progress (57, 69, 70). Some men whose partners birthed in private hospitals stated that they attended birth to provide emotional support to their partners (28, 58, 71). Other reasons that motivated male partners to attend included the fulfilment of their responsibility (24, 57, 59-61, 72), safety of the mother and baby during their stay at the health facility (22), and curiosity to witness what happens during childbirth (23, 68, 73). Some male partners said they would participate in childbirth to play a role in decision-making about the care given to their partners (22, 61, 68, 74).

Cross-sectional surveys provided estimates of some of the reasons that led to male partners' attendance (36, 39, 46, 52, 65, 67). In a study conducted in Nigeria involving 149 male partners, 81.2% reported that they attended childbirth because they felt it was needed, and 53.7% desired to support their partners (46). A study from the Philippines reported that 80.4% of 50 first time fathers attended childbirth because of anxiety about the birth outcome (39). Two studies reported that 22.8% (n=34) of men from a study in China (46) and 6.5% (n=34) of men in a study from Nigeria (52) attended childbirth to welcome their baby. A study from Turkey reported that 73.9% (n=90) of male partners wished to attend childbirth to provide practical support to their partners like assisting them to do breathing exercises during labour (67).

2. Facilitators of male partners' attendance

This broad theme covers individual and health system facilitators to male partners' attendance.

Women's wish for male partners' presence

Five qualitative studies from Brazil, Nigeria, Rwanda, South Africa, and Uganda (20, 26, 29, 70, 75) reported that some women wished to have their husbands as birth companions. A study conducted in Nigeria, reported that women who were left unattended by midwives wished their spouses were present with them (26). Some women reported that they wanted emotional support from their husbands/partners (75). Other women whose husbands were present at childbirth reported that they felt protected and empowered to concentrate on the birthing task (70). Some women wanted their male partners to stay with them throughout childbirth to witness the endurance of labour (20).

Thirteen studies provided quantitative data on reasons why women wanted fathers to be present (30, 37, 40, 45, 47, 49, 51, 54, 67, 76-79). In one study from Nigeria that involved 506 women, 345 desired male partners' presence at labour and birth and reasons included appreciation of the woman's value (57.7%), witnessing childbirth ordeal (32.2%), interceding on their behalf for improved care (24%), receiving encouragement from their partner (21%), and 7.9% perceived that fathers would develop an early bond with the baby if they attended childbirth (49). In two studies, 86.6% (n=102) of 142 women from Nigeria and 86% (n=99) from Turkey whose male partners were present at labour reported that their partners' presence was important for them because they benefitted from their emotional, psychological, physical, and financial support (67, 79).

Support from healthcare professionals

Studies conducted in Brazil and Gambia indicated that health professionals assisted fathers with information during childbirth such as measures to relieve labour pain and helping partners to support women into alternative positions (28, 29). In some instances, receiving information from healthcare practitioners during antenatal classes enabled male partners to attend childbirth (22, 24, 56, 59, 60). Men who received information, guidance, and encouragement from health professionals in private health facilities attended childbirth and felt engaged in the birth process (24, 60, 80).

Couples' current relationship and closeness

Six qualitative studies suggested that among couples who reported having a good relationship, male partners were more likely to attend childbirth (27, 29, 57, 59, 70, 74). Two quantitative studies complemented these findings (48, 81). For example, a survey from El Salvador reported that men who

were married or in a stable relationship with their partners at the time of birth were more likely to attend than those in less stable relationships (81).

Educational attainment

Six quantitative studies (31, 40, 41, 44, 49, 51) found that a higher level of education was associated with male partners' attendance. Four studies conducted in Nigeria, found that the higher the level of the woman's schooling, the more likely male partners were to attend the birth (40, 41, 49, 51). In a study in India, among men who reported that they attended childbirth, 48.3% (n=472) were educated at secondary school level and 57.1% (n=389) had tertiary level education (44).

Positive attitudes towards male partners' attendance

One qualitative study reported that some health providers thought male partners' presence in the labour and/or delivery wards, would inspire them to use family planning (82). In addition, some midwives expressed that if male partners were allowed to attend childbirth, it would protect health providers from accusations of negligence (82).

In three quantitative studies, there was an association between positive attitude of women and male partners' attendance. A survey from Ethiopia reported that 70.5% of women (n=277) viewed men's involvement in childbirth as essential (48). An Iranian study reported that 88.4% (n=130) of women and 82.1% (n=119) of men had positive attitudes towards fathers' presence during labour (55). A study from Egypt reported that 64% (n=124) of women had positive attitudes to their male partners' stay in the delivery room (35).

Men accompanying their partners to antenatal care visits

This theme was from three quantitative studies (48-50). A study from Ethiopia reported that women who attended antenatal care sessions with their husbands were 3.8 times more likely to be accompanied at delivery than those who did not attend with their spouses (48). A study from El Salvador reported that men who attended prenatal care with their partners were likely to attend birth (50).

3. Barriers to male partners' attendance

This theme encompasses individual, sociocultural, contextual, and health system related barriers that may limit male partners' attendance.

Restrictions imposed by health facilities

Most public health facilities did not permit men's presence at labour and/or birth and others put some restrictions on male partners' attendance (19, 22, 26, 28, 29, 57, 60, 62, 72-75, 78, 83-88). For example, a study conducted in a public health facility in South Africa reported that male partners had to request permission to attend the first stage of labour in writing (60). In Syria, male partners' presence was prohibited in the second stage of labour (72, 83). Lack of written protocols and some providers' negative attitudes also limited male partners' attendance (19, 26, 28, 29, 75, 83, 87, 88). Eight quantitative studies assessed the extent of this issue from the reports of men who wished to attend childbirth or of women who wanted their male partners to be present (35, 45, 49, 50, 52, 78, 89-91). Available estimates indicate that between 32.5% and 95% of male partners were restricted from accessing maternity wards.

Professionals' negative perceptions

Three quantitative studies reported health providers' perceptions that may limit male partners' attendance (77, 91, 92). A study from Malawi reported that 5% of 60 midwives thought that permitting male partners' attendance would increase litigation (77). Another survey from Nigeria indicated that 60.4% (n=136) of health providers perceived that male partners might disturb the caring team, 23.6% (n=53) feared that male partners would sue the hospital for negligence, and 3.6% (n=8) thought that male partners would collapse upon seeing blood (91).

Sociocultural barriers

Sociocultural barriers to male partners' participation in the birth process was mentioned in 16 qualitative studies and one quantitative study (20, 22, 23, 25-28, 59, 60, 72, 74, 83, 87, 93, 94). Studies

from Gambia, Syria, Botswana, Malawi, Kenya, South Africa, Nigeria, and Rwanda reported that men and women in rural and semi-urban areas did not favour male partners' presence at labour and/or birth. This may have been influenced by cultural norms that regarded pregnancy and childbirth as a woman's realm and patriarchal attitudes that childbirth is an intimate event which a man should not witness (20, 22, 26, 62, 70, 74, 83, 91, 93, 94). In one survey conducted in a rural Rwandan hospital, 51% of women (n=178) said that men's presence at childbirth was not culturally appropriate (37).

Lack of information and preparation on childbirth

Fourteen qualitative studies contributed to this theme (19, 20, 22, 23, 56, 57, 59-61, 74, 85-87, 93). Male partners who attended childbirth reported that insufficient preparation restricted their participation during childbirth (19, 22, 23, 57, 61, 74, 85, 86, 93). Male partners who had not yet attended labour and/birth voiced their concern over the kind of support they could provide to their partners (19, 22, 57, 74, 85, 86, 93).

Men's negative experiences

In hospitals that allowed male partners to attend, some men reported that they were scared to attend because of the embarrassment of being seen in labour wards (19, 22, 23, 57, 67, 69, 74, 83). Another embarrassing event for some men was vaginal examinations, which some participants labelled as an invasion to the couple's privacy (58). Some men from Tanzania stated that they could not attend labour for fear that their partners might make offensive statements that might embarrass them (69). Another negative experience was male partners' fear of seeing their partners in pain during labour and seeing blood during birth (21-23, 29, 56, 58-60, 67, 93).

Women's opposition

Some women were against male partners' presence at childbirth because they presumed that a man does not know about labour (19, 22, 57, 70, 72-74, 83, 85, 93, 95).

Nine quantitative studies reported that women's opposition may be a limiting factor to male partners' attendance (30, 32, 35, 37, 41, 49, 51, 67, 69). Reasons underlying women's opposition varied. For example, a study from Nigeria reported that 39.3% of 140 women perceived that male partners' presence was not needed, 27.9% thought that male partners' presence would disturb attending health professionals, and 18.6% perceived that their partners could not cope with delivery (49). In a study conducted in Turkey, 45.4% (n=25) of women who did not wish male partners' presence reported that there was no need for them to stay with them during childbirth (67).

Lack of privacy

Studies conducted in Nepal, Malawi, Syria, and Nigeria reported that lack of privacy in the labour wards may limit male partners' attendance (23, 74, 83, 96). Men who have ever accompanied their partners to deliver reported that the way labour wards are designed and the high number of parturient women pose privacy issues to male partners' presence (23, 83, 96).

Work-related constraints

Five qualitative studies reported that unavailability due to work was a limiting factor to male partners' attendance. Some women reported that they were supported by their mothers or mothers-in-law at the time of birth because their husbands migrated to cities for jobs (27). Some male partners reported that they did not attend childbirth because the labour occurred when they were at work (29, 87, 95). Similarly, quantitative studies from Nigeria and India echoed this finding (66, 97).

Family structure influence

Three quantitative studies from India, Nigeria, and El Salvador reported that family structure may limit male partners from attending childbirth (33, 44, 45). For instance, in India, one study reported that 85% of men reported that they did not attend because at the onset of labour, their partners were staying with their parents (44). In El Salvador, women from extended families were less likely to report on male partners' attendance than women from nuclear families (33). In a qualitative study from Gambia, some men who had more than one wife reported that they did not attend childbirth for fear of instilling jealousy among their co-wives (94).

Discussion

This review sought to identify factors influencing whether or not male partners from LMICs attend childbirth. The findings reflect individual, community, and health system factors. Individual factors encompassed women's, men's and health providers' attitudes and motivations. Community related factors derived from the structure, traditions, norms, taboos, gender roles, and other values of societies of LMICs where studies were conducted. Health system factors stemmed from facilities' lack of policies about birth companionship and maternity ward related infrastructural constraints.

Although the current review included studies from different continents, and from low, lower middle, and upper middle income countries, there were strikingly similar themes in terms of individual, community and organisational acceptability of male partners' attendance at labour and/or birth. This suggests that

the relevant country's income level was not a major factor. However, in terms of encouragement of male partners' attendance, Brazil appeared to be the only country that had a national policy addressing birth companionship (98). A few studies attempted to examine the association between demographic characteristics and male partners' attendance at childbirth among female and male participants but the evidence was weak. The findings from this review indicate that while some women from LMICs wish male partners to stay with them during labour and/or birth, individual, organisational, attitudinal, clinical, structural, and contextual constraints limit women's ability to make that choice. This finding is important because it complements other review work that examined only the barriers affecting male partners' experiences of childbirth in low income countries (99, 100).

This review found that some women did not choose male partners' attendance due to privacy related issues and cultural norms. Interestingly, the studies that found that men were embarrassed to attend childbirth were all from low income countries. However, there was limited information about predictive factors other than culture and gender norms. The effect of education, age, and income levels could be further investigated.

Some studies recruited participants solely either from rural or from urban areas. There might be differences in how people in these two settings view male partners' attendance, though the current review could not draw conclusions on this aspect. Some studies were limited due to small unrepresentative samples from diverse populations. In addition, studies were carried out in countries with very different cultures. In some cases, only one study was found from a particular country. Therefore, caution should be taken when applying these findings to the wider context of LMICs.

Strength And Limitations

As far as we are aware, this is the first review that identified facilitators, motivators, and barriers to male partners' attendance at childbirth in LMICs. Our systematic review synthesised both published peer-reviewed articles and unpublished resources such as dissertations and theses. However, the review has some limitations. First, data extraction and quality appraisal was conducted by one reviewer. Secondly, there may be important studies that were not included because of the language limiter set. It

was noted that some studies suffer from poor reporting of the methods. Most of the qualitative studies included in Phase 1 and all experimental studies in Phase 2 were more robust in their reporting than surveys.

Practice Implications

Incorporating male partners as integral participants in the birth process may be one way to promote family-centred services (108-110) and offer holistic childbirth care to women (4). Building on male partners' motivation and some women's wish to be supported by their male partners, health facilities could develop birth companion policies incorporating male partners' attendance at childbirth. If feasible facilities could consider removing any restrictions that may be imposed on couples who may wish to share the birth of their baby together. Irrespective of some contextual issues that may impede male partners' access to the labour and/delivery wards, healthcare professionals should inform fathers who present at the health facilities why they are not allowed to enter the wards and further update them about childbirth progress. If the woman wishes the male partner to attend, health facilities could offer some preparatory information about what to expect and the roles he might perform during childbirth.

Conclusions

This review sheds light on the motivators, facilitators, and barriers of male partners' presence at labour and/or birth in the context of LMICs. The review identifies sociocultural norms, health systems, structural, and individual factors that may limit the acceptance of men as companions during childbirth. Further work is needed to identify other factors that influence male partners' presence at childbirth in LMICs. There remain gaps in information about the feasibility of this practice from the perspectives of women, male partners, facility managers, and healthcare providers. Further research is needed to understand individual, sociocultural and health system contexts that limit women's ability to choose their male partners as birth companions in LMICs.

Declarations

- **Ethics approval and consent to participate:** Ethical approval was not required for this review
- **Consent for publication:** Not applicable
- **Availability of data and materials:** Details about the critical appraisal process and any further information about this review can be solicited through emailing the main author at :
TCUhawenimana@dundee.ac.uk
- **Competing interests:** None

- **Funding:** No funding was received for conducting this review
- **Authors' contributions:** Thierry Claudien Uhawenimana designed and executed the study, created the tables, and drafted the paper. Heather Whitford and Alison McFadden supervised Thierry in the design and writing of this study. They also participated in the screening of papers during the study selection process and contributed to the drafting and editing of this paper. Andrew Symon provided advice concerning the planning and conduct of the review, and contributed to the writing and editing of this study.
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Tables

Table 1: Characteristics of the included studies of Phase 1

<i>Author(s)</i>	<i>Country</i>	<i>Study design and aim</i>	<i>Setting</i>	<i>Sampling</i>	<i>Sample size</i>	<i>Data collection and analysis</i>
STUDIES FROM LOW INCOME COUNTRIES						
Kaye et al. (2014)	Uganda	Phenomenological approach To gain a deeper understanding of male involvement during pregnancy and childbirth by exploring men's perceptions, experiences, and practices	The study was conducted in Mulago Referral Hospital,	Purposive sampling	16 men who came to visit their partners admitted with severe complications of pregnancy and childbirth	Interviews Deductive content analysis
Kululunga et al. (2012)	Malawi	To investigate core causes of barriers to especially husbands' involvement in maternal healthcare in rural Malawi setting Descriptive non-experimental design	Two health centres and their catchment areas in Mwanza District	Purposive sampling	-108 participants comprising men, health providers, village headmen, traditional counselors, and village elders	Focus group discussions Interviews Thematic analysis
Kululunga et al. (2012)	Malawi	Exploratory descriptive approach To explore the views and experiences of men who had attended the birth of their children	Blantyre Adventist Hospital and Mlambe Mission Hospitals; two private health facilities	Purposive sampling and snowball sampling techniques	Twenty Malawian men	-Interviews Content analysis
Secka (2010)	The Gambia	No specific design was reported To explore socio-cultural factors affecting men's involvement during pregnancy and child birth.	Banjul, Kanifing Municipality and the western division	Purposive sampling	17 pregnant women, 16 husbands, 10 midwives, 2 traditional birth attendants, and 2 village health workers 4 focus groups with 14 husbands and 14 women	Interviews Focus group discussions Thematic content analysis
Lowe (2017)	The Gambia	Exploratory qualitative design To explore some of the underlying social and cultural factors affecting husbands'	Five areas of rural Gambia (Makka Farafenni, Kerr Ardo, Kerr Gumbo, Mballow Omar and Bakindik) in the North Bank Region.	Purposive sampling	Five focus groups that involved 50 men Key informant interviews with 6 TBAs	Interviews Focus group discussions Thematic analysis approach

		involvement in maternal health issues pertaining to pregnancy and delivery in rural Gambia.				
Mullany (2006)	Nepal	No specific design/approach reported To explore men's, women's and providers' attitudes towards the promotion of male involvement in maternal health; particularly during pregnancy and childbirth.	Prasuti Griha Maternity Hospital (PGMH).	Purposive sampling	14 couples and three women whose husbands could not be located at home Focus group discussions were conducted with 17 couples and six additional women whose husbands were not home Key informant interviews administered to eight healthcare providers.	Interviews Focus group discussions Thematic analysis
Sapkota et al. (2012)	Nepal	No specific design reported To explore the immediate husbands' experiences of supporting their wives during childbirth	Maternity and Neonatal Service Centre (MNSC), Paropakar Maternity and Women's Hospital (PMWH) in Nepal	Sampling strategy not reported.	13 first time fathers who supported their wives during labour or delivery	Interviews Thematic analysis
Lewis et al. (2015)	Nepal	In-depth interviews To explore the nature of the husbands' roles and involvement, the factors which influence or discourage their involvement, and their perceptions of the mother's and the child's needs.	Four villages in the Gorkha district	Theoretical sampling approach	35 interviews including 17 fathers, 15 mothers, and three mothers in law were held.	Interviews Grounded theory analytical approach
Mukamurigo et al. (2017)	Rwanda	Phenomenological approach To explore the meaning of a poor childbirth	Two health facilities in the Northern Province and Kigali city	Part of a larger survey that applied an interview	17 Women	Interviews Phenomenology

		experience as expressed by women who had given birth in Rwanda.		based questionnaire		
Ndirima et al. (2018)	Rwanda	In-depth interviews To understand the non-clinical aspects of care that rural woman in Rwanda consider important during childbirth.	Mibilizi District Hospital, Southern Province	Purposive sampling	20 women 5 midwives	Interviews Content analysis
Påfs et al. (2016)	Rwanda	Naturalistic inquiry approach To explore recent fathers' perspectives about their roles during childbearing and maternal care-seeking within the context of Rwanda's political agenda for gender equality.	One health facility within Kigali City	Purposive sampling and snowballing	13 men 6 focus groups involving 27 men	Interviews Focus group discussions Naturalistic inquiry approach
Bohren et al. (2017)F	Uganda & Nigeria	Qualitative study guided by the World Health Organisation quality of care framework To explore what "quality of care" means to childbearing women in Nigeria and Uganda, as a means of ensuring that women's voices and opinions are prioritized when developing interventions to improve quality in maternity care provision.	Eight health facilities and facility catchment areas in Abuja and Akure, Nigeria, and Kampala, Uganda	Maximum variation sampling approach to achieve	132 women 21 Focus group discussions	In-depth interviews Focus group discussions Thematic analysis approach
Lwanga et al. (2017)	Uganda	Explorative qualitative design To assess companionship during delivery; men's perception	St Francis Hospital Nsambya, a private not for profit facility	Purposive sampling	16 men	Interviews Content analysis approach

		and experiences during pregnancy and delivery.				
Maluka and Peneza (2018)	Tanzania	Cross-sectional qualitative design To explore local perceptions about male involvement in pregnancy and childbirth in Tanzania.	Six health facilities in Masasi District Council in Mtwara Region	Purposive sampling	20 women who attended ANC appointments 13 Male partners 4 Health providers 5 Traditional birth attendants 6 religious leaders 7 Village leaders 8 District Health Managers	Interviews Thematic analysis approach
STUDIES FROM LOWER MIDDLE INCOME COUNTRIES						
Kwambai et al. (2013)	Kenya	No specified design To identify factors that facilitate or constrain men's involvement in ANC and delivery care in Western Kenya	Asembo, a rural district in Nyanza Province	Purposive sampling and groups of	Eight focus groups that involved 68 men	Focus group discussions Thematic framework approach
Dumbaugh et al. (2014)	Ghana	No specific design was reported To fill the gap in the existing literature and inform future interventions by increasing knowledge and understanding of the potential of male involvement in new-born care in a rural African setting.	Brong Ahafo Region	Purposive sampling	25 birth mothers who delivered at home -12 male partners -Two focus groups that involved 22 male partners	Interviews Focus group discussions Qualitative Research Review (RATS) guidelines
Ganle et al. (2016)	Ghana	No specific design reported To examine women's perspectives on men's involvement in maternal and child healthcare in Ghana, focusing on the Upper West	Seven communities across two districts - Wa West and Lambussie-Karni districts - in the Upper West Region (UWR)	Purposive sampling	14 Focus groups that involved 125 women	Focus group discussions Thematic and content analysis approaches used

		Region as a case example.				
Emelonye et al. (2016)	Nigeria	Qualitative cross-sectional design To investigate the barriers inhibiting the use of spousal presence for childbirth pain relief in Nigeria.	Four general hospitals in Abuja	Convenient sampling	384 participants including 100 midwives, 142 women and 142 spouses	Questionnaires with open-ended questions Content analysis was applied during the analysis process.
Abushaikha and Massah (2012)	Syria	Descriptive phenomenological approach To explore the roles of a father during childbirth as perceived by Arab Syrian parents	One major governmental obstetrical hospital in the city of Tartous	Purposive sampling	-23 mothers and 14 both first and subsequent parents Five focus groups that involved 14 mothers and 6 fathers	Interviews Focus groups discussions. - Phenomenological analytical approach
Abushaikha and Massah (2013)	Syria	Descriptive phenomenological approach To explore Syrian parents' perceptions of barriers to paternal presence and contribution during childbirth. -	One major governmental obstetrical hospital in the city of Tartous	Purposive sampling	23 mothers and 14 fathers both first and subsequent parents Five focus groups that involved 14 mothers and 6 fathers	- Key informant interviews Focus group discussions. - Phenomenological analytical approach
Carter (2002)	Guatemala	No specific design reported To help clarify husbands' roles in maternal health and men's and women's perspectives on these roles.	Five communities in two departments of Guatemala: Chimaltenango and Quetzaltenango.	Convenience sampling	12 focus groups and 33 individual interviews with men, women, and community health workers were conducted	-Focus group discussions Interviews. -Data analysis process not discussed.
Arunmozhi et al. (2015)	India	No specific design reported To identify some of the factors contributing to poor male participation in maternal and neonatal care in Urban Tamil Nadu, India.	Pulianthope Health Post from North, Vadapalani Health Post from the south and Shenoy Nagar Health Post from the central division, Urban Tamil Nadu,	Not reported	24 men and 24 women; Three focus groups	Interviews Focus group discussions Analytical analysis not reported
Kaveri and Aik (2016)	India	In-depth interviews To explore the perceptions of pregnant woman,	Two hospitals in Kolkata (one private and public facility),	Not reported	24 health service providers 38 women 38 men	In-depth interviews Focus group discussions

		husband and service providers about the presence of husband as a birth companion during childbirth.				Analytical plan applied not reported
STUDIES FROM UPPER MIDDLE INCOME COUNTRIES						
Kgokgothwane and Nolte (2002)	Botswana	Explorative approach To explore and describe the views of Botswana adults of childbearing age towards support during labour and childbirth	One private clinic with a maternity wing in the urban area in Botswana and a Primary Hospital in a rural area	Purposive sample used to recruit female participants who have given birth in the previous two years. Convenience sample used to recruit any male participants	-8 women -8 men	Focus group discussions Creswell's approach to qualitative data analysis
Moreira Silva et al. (2015)	Brazil	Descriptive explorative design To analyse the opinion of men who accompanied the partner during labour/birth and witnessed the birth of his son.	Municipal Maternity of Juazeiro-BA	Not reported	10 men who accompanied their partners during labour and delivery	Interviews Thematic content analysis
de Souza Francisco et al. (2015)	Brazil	Descriptive exploratory design To explore the expectations and meanings that individual fathers ascribe to their presence at birth.	One maternity unit of a public hospital in Santa Catarina	-Not reported	12 men who informed the authors that they were fathers of the new-born and were present throughout the birth process.	Interviews Thematic analysis
de Melo and de Brito (2013)	Brazil	Descriptive exploratory study To analyse the perceptions of the fathers about their presence in the labour room during their child's birth.	Not reported	Not reported	12 men who were present during the birth of their child	Interviews. Content analysis
Alves et al. (2013)	Brazil	Descriptive exploratory design To understand the inclusion of the companion support in the	Obstetric Care Unit of the University Hospital from the Federal University of Santa Catarina	The number of participants was determined by saturation	17 companions including 11 husbands or partners, two sisters, two mothers, one	Unstructured participant observation; The data registration done in a filed diary,

		obstetric ward and to identify the actions developed to support the pregnant mother during labour, delivery, and immediate postpartum.			aunt and one sister in law.	and the notes were made after each observation; Data was analysed according to Trentini and Paim (2004) processes
Souza and Gualda (2016)	Brazil	Thematic oral history approach To identify the experiences of women and their coaches during the childbirth process in a public maternity hospital from Parana State, Brazil.	Maternity department of a university public hospital linked to the nursing and medical programs at the <i>Universidade Federal do Paraná</i> (UFPR), in the city of Curitiba	Not reported	11 women and their respective coaches	Interviews The textualisation and re-textualisation approach
Mullick et al. (2005)	South Africa	Qualitative component of the baseline intervention study on men's involvement in maternity health To obtain input which would help in the design of the intervention of men in maternity care.	Eight urban and four rural clinics that fell in the administrative area of the Prince Mshiyeni Memorial Hospital (PMMH)	Not reported	Eleven focus groups discussions with pregnant women, men whose partners were pregnant at the time, and couples who had recently had babies; each comprising between 6-12 participants	Focus group discussions Data analysis not reported
Nesane et al. (2016)	South Africa	To determine male partners' views on their involvement in maternal healthcare services. Exploratory descriptive qualitative study	Kutama, Madombidzha and Vleifontein clinics of Makhado Municipality in Limpopo Province	Purposive sampling	15 men whose wives/partners had had pregnant partners in the past two years	Interviews Open coding method used to analyse data.
Sengane et al. (2012)	South Africa	Exploratory descriptive design To explore and describe the expectations concerning care provided by midwives to	One third-level academic public hospital labour ward situated in a semi-rural area of the Gauteng Province	Purposive sampling	-5 fathers	An interview guide with unstructured questions was used The theory of Health Promotion

		mothers during labour.				in Nursing guided data analysis
Sengane (2009)	South Africa	Descriptive phenomenological design To explore and describe the experiences of black fathers concerning support for their wives /partners during labour.	Two health facilities in the Gauteng province, including one private and one public hospitals	Purposive sampling	- 5 fathers who attended labour and other five fathers who did not attend their partners' labour.	-Interviews Content analysis

Table 2. Characteristics of the included studies of Phase 2

					Study design	
				Multistage sampling to select sites for the study	Cross-sectional survey	Interviewer administered questionnaire
				Quota sampling to select participants;		
				Convenient sampling Recruitment not reported	Cross-sectional survey	Interviewer administered questionnaire
	To study the acceptability and experience of supportive companionship during childbirth by mothers, health professionals and supportive companions.	Blantyre City, in the Southern region; Respondents recruited from randomly selected one tertiary hospital and one health centre in Blantyre Southern Region		Systematic sampling technique used to select female participants Convenient sample used to select birth companions and health professionals	Mixed methods study	Interview administered semi-structured questionnaire
		Paropakar Maternity and Women's Hospital (PMWH), a public referral hospital, Kathmandu,	309 first time mothers whose husband or a female friend was available to stay in the hospital throughout the birth process.	All women who voluntarily consented and who met the inclusion criteria	Quasi-experimental	Interviewer administered questionnaire that used the Labour agency scale (LAS) and the visual analogue scale
		Ruhengeri Hospital in Musanze District	350 pregnant women who presented as referrals at the maternity ward	Convenient sampling	Cross-sectional survey	Interviewer-administered structured questionnaire
TUDIES FROM LOWER MIDDLE INCOME COUNTRIES						
			506	Eight study		Self-reported

			consenting	sites were sampled using multistage sampling. Convenient sampling select respondents		questionnaire or interviewer administered questionnaire used depending on participants' level of education.
			52 women who attended antenatal and postnatal check-ups	Consecutive sampling approach		Self-administered questionnaire
			564 health providers	Stratified random sampling used to select study sites		Instruments used not described.
				Consecutive sampling		Interviewer administered questionnaire
		Ungogo town			Mixed methods study	Face to face interviewer administered questionnaire to men In-depth interviews with community leaders using an interview guide
	To document the attitude and preferences of pregnant women about social/emotional support while in labour and also to seek factors that may influence such attitudes.	University College Hospital, Ibadan		Systematic random sampling	Cross-sectional survey	Interviewer administered questionnaire
				Sampling approach not reported		Data collections methods not adequately described
		Three public hospitals	462 pregnant	The sampling frame not reported		Interviewer administered questionnaire
		Atelewo community in Osogbo, the capital of Osun State	362 adult men	Systematic random sampling technique		Questionnaires were either self-administered when the respondents

						could read or administered by interviewers when respondents were not able to read.
				Sampling technique not reported	Cross-sectional survey	Interviewer administered questionnaire
		4 public hospitals in Ogun state		Purposive sampling technique		Self-report questionnaires
		AshwiKhurd and Talegaon primary health centres in Ahmadnagar				Face to face interviews using an interview schedules with closed-end questions
					Cross-sectional survey	A questionnaire was used, but very limited information about how it was used
	To identify the factors associated with husbands' involvement in maternal health in Myanmar.		426 men who had at least one child within two years at the time of interview	Random sampling	Cross-sectional survey	A structured questionnaire adapted from survey tools and indicators for maternal and new-born health developed by JHPIEGO
	To assess sociodemographic, knowledge and attitude correlates of male involvement in maternal and neonatal health	Ten residential wards and one industrial ward in South Dagon Township,	203 married men with a child up to one year of age	Purposive sampling	Cross-sectional survey	Face to face interviews with structured questionnaire
				Quota sampling.		A structured interview sheet and a tool that was

						used in a similar study in Iran (Modarres Nejad, 2005)
	To assess and determine the feelings and experiences of first-time fathers during labour and delivery of their partner/wife.	One government hospital in Samar	51 first-time fathers	Convenience sampling	Cross-sectional survey	Interviewer administered questionnaire applying the Kuopio Instrument for Fathers (KIF)
				Simple random sampling to select study areas and participants for the quantitative survey Purposive sampling was used to select health workers	Cross-sectional survey that collected quantitative and qualitative data.	Interviewer administered questionnaire A semi structured interview guide to collect data regarding service factors from officers in charge of six district health facilities Two focus group discussions with 12 village leaders.
	To provide a baseline perspective on the prevalence of Salvadoran men's attendance at prenatal care, delivery, and postpartum well-baby care and on socio-demographic factors associated with their attendance, with the goal of informing efforts to help men play more positive roles in maternal-child health.	El Salvador National Male Health Survey carried out in 2003 by the Salvadoran Demographic Association	418 men aged 15 to 59 who reported having fathered at least one live-born child in the five years preceding the survey	= One resident male aged 15 to 59 was then randomly selected from each household.	Cross-sectional survey	Interviewer administered questionnaire
			1786 women who reported that their male partners attended their latest birth;	The study is a secondary data analysis of PEMIT survey carried in 1994-1995 that focused on women and their rural communities.		Questionnaires and interview schedules

				The survey component applied random sampling to select participants		
	To explore pregnant women's attitudes towards the inclusion of a lay companion as a source of social support during labour and delivery in rural central Ghana.	Apam Catholic Private Hospital	50 pregnant women presenting for antenatal care	Convenience sampling	Mixed methods approach	A study-specific semi-structured interview guide
				Systematic sampling		Interviewer administered questionnaire

STUDIES FROM UPPER MIDDLE INCOME COUNTRIES

		Large Maternal and	210 expectant first time parents	Consecutive sampling		Self-report questionnaire administered to participants
	To examine Chinese fathers' feelings related to their partners' labour and birth as well as views on their presence during the labour and birth.	Postnatal ward of a tertiary hospital in Fujian Province	403 fathers who accompanied their partners who gave birth in the study hospital	Convenience sampling	Cross-sectional survey	Self-report questionnaire Used the Kuopio Instrument for Fathers (KIF), Chinese version
				Simple random sampling		Self-report questionnaire
	To determine the effects of fathers' attendance to labour and delivery on the experience of childbirth in a university hospital in Istanbul, Turkey.	Maternity unit of Istanbul University Istanbul Faculty of Medicine Gynaecology and Obstetrics Department	50 primigravida low-risk women	Information forms given to 142 volunteer women who were interested in the study Only 57 women informed the researcher by phone and invited her to birth when labour began.	Experimental design	Fathers' responses and behaviours during labour and birth were recorded. Family introductory form and Perception Birth Scale Father Interview Form used to describe fathers' participation styles and

						<p>their experiences in labour and delivery</p> <p>Characteristics of the Birth Form</p> <p>Self-report questionnaire was administered to the couples</p>
	To determine Turkish women's and their spouses' views on spousal support during delivery	Elazığ Training and Research Hospital	170 couples who stayed in the postpartum unit	convenience sampling	Cross-sectional survey	Interviewer administered questionnaire
				Convenience sampling		
				The cluster sampling technique to select ten hospitals		<p>At each site, 200 baseline exit interviews with postnatal women conducted</p> <p>The same interviews were held 8 months after the intervention for follow up</p>
				Cluster sampling		Structured self-report questionnaire

Figures

Figure 1: PRISMA Summary of the screening process for Phase 1

Figure 1

PRISMA Summary of the screening process for Phase 1

Figure 2

PRISMA Summary of the screening outcomes for Phase 2