



## Review Article

## Men's involvement in maternal health in sub-Saharan Africa: A scoping review of enablers and barriers

Enos Moyo<sup>a,\*</sup>, Tafadzwa Dzinamarira<sup>b,\*</sup>, Perseverance Moyo<sup>c</sup>, Grant Murewanhema<sup>d</sup>, Andrew Ross<sup>a</sup><sup>a</sup> University of Kwa-Zulu Natal, College of Health Sciences, School of Nursing & Public Health, Durban, South Africa<sup>b</sup> School of Health Systems and Public Health, University of Pretoria, Pretoria, South Africa<sup>c</sup> Medical Centre Oshakati, Oshakati, Namibia<sup>d</sup> University of Zimbabwe, Faculty of Medicine and Health Sciences, Unit of Obstetrics and Gynaecology, Harare, Zimbabwe

## ARTICLE INFO

## Keywords:

Maternal healthcare  
Men's involvement  
Enablers  
Barriers  
Sub-Saharan Africa

## ABSTRACT

**Background:** Globally, there are about 800 maternal deaths every day, with low-to-middle-income countries accounting for most of these deaths. A lack of access to maternal healthcare services is one of the main causes of these deaths. In sub-Saharan Africa (SSA), one of the barriers to accessing maternal healthcare services by women is a lack of their male partners' involvement. This scoping review aimed to assess the enablers and barriers to men's involvement in maternal healthcare services.

**Methods:** The Preferred Reporting Items for Systematic Reviews and Meta-Analysis extension for Scoping Reviews (PRISMA-ScR) checklist was used as a guide for this review. We searched for peer-reviewed articles published between 2013 and 2023 in the English language from SCOPUS, ScienceDirect, PubMed, Africa Journals Online (AJOL), and Google Scholar databases. Two reviewers independently conducted the data extraction and article selection. All of the authors discussed and decided on the codes and categories for enablers and barriers after using NVivo to generate them.

**Results:** Twenty-seven articles were used in this review. Of these, seventeen were qualitative studies, six were quantitative studies, and four were mixed-methods studies. The enablers of men's involvement in maternal healthcare were grouped into sociodemographic factors, health system factors, and policy factors, while barriers were grouped into sociodemographic, cultural, economic, and health system barriers. The lack of maternal health knowledge, insufficient economic resources, and unfriendly staff at healthcare facilities all contributed to a lack of involvement by men.

**Conclusion:** To improve men's involvement in maternal healthcare in SSA, there should be economic empowerment of both men and women, health education, and the provision of adequate infrastructure in healthcare facilities to accommodate men.

## Introduction

Worldwide, maternal mortality is still a problem. Globally, there are about 800 maternal deaths every day, with low-to-middle-income countries (LMICs) accounting for the majority of these deaths (WHO, UNICEF, UNFPA, World Bank Group, and UNDESA/Population Division, 2023). Approximately 70 % of all maternal deaths worldwide occur in Sub-Saharan Africa (SSA) (WHO, UNICEF, UNFPA, World Bank Group, and UNDESA/Population Division, 2023), with the lack of access to maternal healthcare services as a major contributing factor (Tsawe and

Susuman, 2014). The health of women during pregnancy, delivery, and the postpartum period is called maternal health, and late and poor access to these services is associated with an increase in maternal morbidity and mortality (Tsawe and Susuman, 2014; WHO 2023). Preconception counseling, antenatal care (ANC), intrapartum care, postnatal care (PNC), and the management of obstetric problems are all included in the spectrum of maternal healthcare services (Nesane et al., 2016).

In SSA, several challenges prevent women from accessing maternal healthcare services. Among the barriers are the distance to healthcare

\* Joint Corresponding authors.

E-mail addresses: [moyenos@yahoo.co.uk](mailto:moyenos@yahoo.co.uk) (E. Moyo), [u19395419@up.ac.za](mailto:u19395419@up.ac.za) (T. Dzinamarira).<https://doi.org/10.1016/j.midw.2024.103993>

Received 18 November 2023; Received in revised form 17 March 2024; Accepted 5 April 2024

Available online 7 April 2024

0266-6138/© 2024 The Author(s). Published by Elsevier Ltd. This is an open access article under the CC BY-NC license (<http://creativecommons.org/licenses/by-nc/4.0/>).

facilities, the lack of women's autonomy, the inability to pay for services and transportation, and the absence of spousal involvement (Dahab and Sakellariou, 2020). Men's involvement in maternal healthcare is important in SSA, considering that more than 95 % of the people in the region are heterosexual (Statista 2024). The definition of men's involvement in maternal health is when a male partner supports a woman by offering both emotional and physical support and by participating in joint decision-making (Galle et al., 2021). However, men's involvement may also refer to being present when maternal healthcare services are being provided to the woman, offering financial support, or providing transport (Galle et al., 2021). Men's involvement in maternal healthcare services has several advantages. These include better use of ANC and PNC services, more hospital deliveries, a greater likelihood of skilled birth attendance at the time of delivery (Tokhi et al., 2018), as well as a decrease in postpartum depression (Yargawa and Leonardi-Bee, 2015). The presence and support of a male partner during labor are linked to a shorter labor duration, a decreased need for painkillers, and happier birthing experiences for women (Srivastava et al., 2015). Considering these benefits, the World Health Organization's recommendations on health promotion interventions for mothers and newborns in 2015 included the active involvement of men during pregnancy, delivery, and the postpartum period as an effective method to improve the health outcomes of mothers and their newborn babies. Nonetheless, the WHO stressed that men's participation should guarantee that women's autonomy in decision-making is respected (WHO, 2015). In SSA, men's involvement in maternal health is still quite low. One study conducted in Ethiopia revealed that only 38 % of men were involved in ANC (Mekonen et al., 2022), while another study conducted in Kenya reported 18 % male involvement in ANC (Nyang'au et al., 2021). Therefore, increasing men's participation in maternal healthcare services is necessary to lower maternal mortality in SSA (Mersha, 2018).

In patriarchal societies, which exist in many parts of the SSA, men make family decisions and often decide on the division of money for different purposes, and when women should attend maternal healthcare services. Socially constructed gender norms are prevalent in most SSA cultures and can lead to uneven power interactions between men and women. The presence of unequal power relations can compel women to be submissive, thereby restricting their autonomy in making decisions regarding their maternal health (Danforth et al., 2009). Furthermore, women in SSA are less educated and have fewer employment prospects than men, which affects how often they seek maternal healthcare since some of them rely on financial support from their male partners to access maternal healthcare (Nesane et al., 2016). Although several reviews on men's involvement in maternal healthcare in SSA have been conducted (Chereni et al., 2022; Ditekemena et al., 2012; Ladur et al., 2021; Nkwonta and Messias, 2019), none have looked at the enablers and barriers to men's involvement. Given the role men can play in the use of maternal healthcare services by women, this scoping review aimed to assess the factors that influence men's involvement in maternal healthcare services in SSA. Such information may be useful in the formulation of strategies to improve men's involvement in maternal healthcare services, which may result in improved maternal healthcare utilization, leading to an improvement in maternal health outcomes.

## Methodology

### Study design

This scoping review was conducted to determine the enablers and barriers to men's involvement in maternal healthcare in SSA in accordance with the Preferred Reporting Items for Systematic Reviews and Meta-Analysis extension for scoping reviews (PRISMA-ScR) checklist (Tricco et al., 2018). Considering that men's involvement was defined differently in the included studies, there were no comparable measures in the studies to undertake a meta-analysis.

### Research questions

We framed the research questions using the problem-interest-context (PICO) framework. Men's involvement was the identified problem, maternal healthcare services the interest, and SSA the context. The research questions that we sought to answer in this review were:

- i. What are the enablers of men's involvement in maternal healthcare services in SSA?
- ii. What are the barriers to men's involvement in maternal healthcare services in SSA?

### Inclusion criteria

Primary qualitative, mixed-methods, and quantitative studies carried out in SSA that reported on the factors that enable and/or hinder men's participation in maternal healthcare services were included in this review. The included articles were published between 2013 and 2023 in the English language. We included only articles between 2013 and 2023 to ensure that the gathered findings are relatively recent and still apply to the current context.

### Exclusion criteria

We did not include editorials, opinion articles, meta-analyses, meta-syntheses, scoping reviews, systematic reviews, or grey literature in our review.

### Literature sources and search strategy

We searched for peer-reviewed articles published between 2013 and 2023 in the English language from SCOPUS, ScienceDirect, PubMed, Africa Journals Online (AJOL), and Google Scholar databases. One study revealed that database searches that include at least two databases retrieve most of the relevant articles in reviews (Ewald et al., 2022), while another reported that including at least Google Scholar and PubMed databases in a search was a minimum requirement for adequate coverage (Bramer et al., 2017). We searched all the databases on 15 October 2023. The keywords we used for the literature search include 'maternal', 'healthcare', 'services', 'antenatal care', 'postnatal care', 'childbirth', 'delivery', 'men', 'male', 'involvement', 'participation', 'sub-Saharan Africa', 'enablers', and 'barriers', and all countries in SSA. We used Boolean operators 'AND' and 'OR' to delimit or expand our literature search. For example, for the Google Scholar, we employed the search strategy (maternal healthcare OR (maternal AND healthcare services) OR antenatal care OR postnatal care OR childbirth OR delivery) AND (men's involvement OR men OR male involvement OR participation) AND sub-Saharan Africa AND (enablers OR barriers) followed by specifying the date range. For ScienceDirect, we employed the strategy, (antenatal care OR postnatal care OR childbirth OR delivery) AND (men's involvement OR male involvement) AND sub-Saharan Africa AND (enablers OR barriers) followed by specifying the date range. Supplementary File 1 contains more information about the PubMed search strategy. We extracted the full-text articles from every study that would have satisfied the inclusion requirements and exported them to Endnote (ENDNOTE, 2013). We used Endnote to eliminate any duplicate articles. After removing the duplicate articles, we looked through each full-text article's reference list to see if any more relevant articles that might not have been retrieved during the initial search. Each of the identified articles that potentially satisfied the inclusion criteria had its own title as well as abstract evaluated independently by two reviewers (EM and TD), who then compared their results. Where there were discrepancies in their findings, discussions were conducted to reach a consensus. In cases where a consensus could not be established following the discussion, a third reviewer (PM) facilitated the discussion to bring about a consensus.

Data extraction

The reviewers used a tool they developed for data extraction to record the studies' findings. The form used for data collection was initially pilot-tested on three included studies to determine its adequacy. Two reviewers (EM and PM) independently extracted data from the selected studies. The two reviewers then compared their findings, and where there were differences, they relooked at the studies that had different findings together to reach a consensus. The two reviewers requested a third reviewer (TD) to adjudicate where a consensus was not reached. Data extracted from the included studies included the articles' first authors, the publication year, the nation where the study was carried out, the aspect of maternal healthcare service that was studied, the research method used, the participants in the studies, the data collection method, the data analysis method used, and the findings of the studies. We defined barriers as factors that hindered men from getting involved in

maternal healthcare services and enablers as factors that encouraged men to be involved.

We retrieved 483 articles from all databases. The majority of the articles were retrieved from PubMed ( $n = 152$ ), while 118 were from Google Scholar, 103 from Science Direct, 65 from SCOPUS, and 45 from AJOL. Two hundred and one articles remained for abstract screening after removing duplicates. The reviewers checked whether the remaining articles reported on enablers and barriers to men's involvement in maternal healthcare were original qualitative, quantitative, and mixed-methods research, and were conducted in SSA. Thirty articles were eligible for full-text screening. Three articles (Adeniran et al., 2015; Unawari et al., 2023; Obi et al., 2019) were removed with reasons from the full-text screening, resulting in twenty-seven articles remaining for the scoping review. More details are presented in Fig. 1.

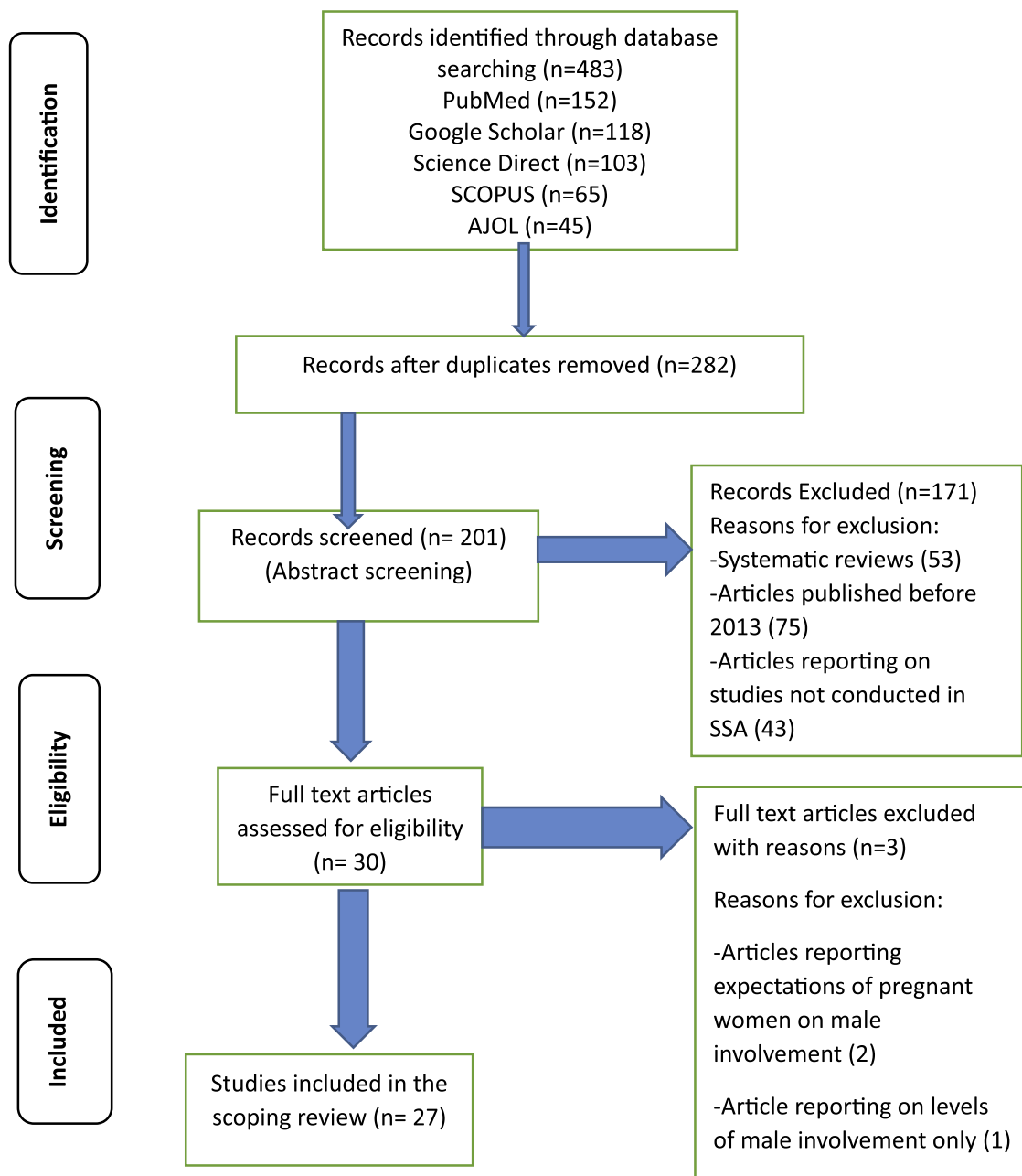


Fig. 1. PRISMA Flowchart.

## Data synthesis

The findings of both quantitative and qualitative studies were presented in narrative form. After familiarization with the data, we exported it into NVivo version 20 for analysis. We used NVivo to develop codes and categories of enablers and barriers. After the codes and categories were generated, all the authors discussed how the codes could be grouped into categories. Where there were disagreements, we discussed the differences until a consensus was reached. The discussions ensured that all the categories generated reflected the findings and addressed our research questions.

## Results

### Characteristics of included studies

Twenty-seven studies were included in this review. All the included studies were conducted ethically. Four of the studies (Gibore et al., 2019; Gibore and Bali, 2020; Maluka and Peneza, 2018; Mapunda et al., 2022) were conducted in Tanzania, five (Annoon et al., 2020; Bougangué and Ling, 2017; Craymah et al., 2017; Ganle and Dery, 2015; Morgan et al., 2022) in Ghana, three each in Kenya (Lusambili et al., 2021; Okwako et al., 2023; Ongolly and Bukachi, 2019) and Malawi (Manda-Taylor et al., 2017; Mkandawire and Hendriks, 2018; Sakala et al., 2021), two each in Nigeria (Mbadugha et al., 2019; Okafor et al., 2022), Ethiopia (Mekonen et al., 2022; Teklesilasie and Deressa, 2020), and Mozambique (Audet et al., 2016; Galle et al., 2019), and one each in Gambia (Lowe, 2017), South Africa (Nesane et al., 2016), Eswatini (Khulu et al., 2022), Uganda (Bagenda et al., 2021), the Democratic Republic of Congo (Ody et al., 2023), and Zambia (Muloongo et al., 2019). Seventeen were qualitative studies (Audet et al., 2016; Bagenda et al., 2022; Bougangué and Ling, 2017; Galle et al., 2019; Ganle and Dery, 2015; Gibore and Bali, 2020; Khulu et al., 2022; Lowe, 2017; Lusambili et al., 2021; Maluka and Peneza, 2018; Mkandawire and Hendriks, 2018; Morgan et al., 2022; Muloongo et al., 2019; Nesane et al., 2016; Okwako et al., 2023; Sakala et al., 2021; Teklesilasie and Deressa, 2020), six (Annoon et al., 2020; Craymah et al., 2017; Gibore et al., 2019; Mbadugha et al., 2019; Mekonen et al., 2022; Ody et al., 2023) quantitative studies, and four (Mapunda et al., 2022; Manda-Taylor et al., 2017; Okafor et al., 2022; Ongolly and Bukachi, 2019) mixed methods studies. Fourteen of the studies (Bagenda et al., 2021; Bougangué and Ling, 2017; Craymah et al., 2017; Ganle and Dery, 2015; Gibore et al., 2019; Gibore and Bali, 2020; Lowe, 2017; Lusambili et al., 2021; Manda-Taylor et al., 2017; Mbadugha et al., 2019; Mkandawire and Hendriks, 2018; Nesane et al., 2016; Okwako et al., 2023; Teklesilasie and Deressa, 2020) reported on maternal healthcare services, nine (Annoon et al., 2020; Audet et al., 2016; Galle et al., 2019; Khulu et al., 2022; Mapunda et al., 2022; Mekonen et al., 2022; Morgan et al., 2022; Muloongo et al., 2019; Ody et al., 2023) on ANC services, two (Okafor et al., 2022; Ongolly and Bukachi, 2019) on both ANC and PNC services, while one each on ANC and HIV testing (Sakala et al., 2021), and ANC and childbirth (Maluka and Peneza, 2018). Participants in the studies in this review included pregnant or nursing mothers and their partners (Ganle and Dery, 2015; Lusambili et al., 2021; Maluka and Peneza, 2018; Mapunda et al., 2022; Mbadugha et al., 2019; Morgan et al., 2022; Muloongo et al., 2019; Okafor et al., 2022; Teklesilasie and Deressa, 2020), male partners (Bougangué and Ling, 2017; Gibore et al., 2019; Mekonen et al., 2022; Nesane et al., 2016; Ody et al., 2023); key stakeholders such as community leaders, village health workers, traditional birth attendants, traditional leaders (Bagenda et al., 2021; Ganle and Dery, 2015; Gibore and Bali, 2020; Maluka and Peneza, 2018; Manda-Taylor et al., 2017; Mkandawire and Hendriks, 2018); health-care workers (Bagenda et al., 2021; Galle et al., 2019; Khulu et al., 2022; Manda-Taylor et al., 2017; Okwako et al., 2023; Ongolly and Bukachi, 2019); and other family members (Manda-Taylor et al., 2017). Data collection in the included studies was conducted using questionnaires

(Annoon et al., 2020; Craymah et al., 2017; Gibore et al., 2019; Mapunda et al., 2022; Mbadugha et al., 2019; Mekonen et al., 2022; Ody et al., 2023); semi-structured individual interviews (Maluka and Peneza, 2018); focus group discussions (FGDs) and in-depth interviews (IDIs) (Bougangué and Ling, 2017; Gibore and Bali, 2020; Lowe, 2017; Manda-Taylor et al., 2017; Mkandawire and Hendriks, 2018; Sakala et al., 2021); FGDs only (Audet et al., 2016; Okwako et al., 2023); IDIs only (Bagenda et al., 2021; Khulu et al., 2022; Morgan et al., 2022; Muloongo et al., 2019; Nesane et al., 2016); FGDs, IDIs, and key informant interviews (KIIs) (Galle et al., 2019; Ganle and Dery, 2015; Ongolly and Bukachi, 2019; Teklesilasie and Deressa, 2020); FGDs and KIIs (Lusambili et al., 2021); and questionnaires and FGDs (Okafor et al., 2022). Statistical analysis was used for quantitative data analysis, while thematic analysis was used to analyze qualitative data in the included studies. More details are shown in Table 1.

### Review findings

The findings of this scoping review are presented in Table 2 and in a narrative form in the sections that follow.

#### Enablers of men's involvement in maternal healthcare services

We categorized the enablers into sociodemographic factors, health system factors, and policy factors.

**Sociodemographic factors.** In this review, we defined sociodemographic factors as characteristics that define an individual. Sociodemographic factors that enable men's involvement in this review included the number of children a couple has (Craymah et al., 2017; Gibore et al., 2019), the type of marriage they are in (Craymah et al., 2017), the educational level of the man (Craymah et al., 2017; Ganle and Dery, 2015; Mekonen et al., 2022; Okafor et al., 2022), the living arrangement of the couple (Annoon et al., 2020; Craymah et al., 2017), the man's level of knowledge of maternal and child health (Mekonen et al., 2022; Okafor et al., 2022), the residential place of the man (Mekonen et al., 2022), the monthly income of the male partner (Mekonen et al., 2022), the age of the male partner (Galle et al., 2019), the need to have a healthy family (Morgan et al., 2022; Muloongo et al., 2019), and whether the pregnancy was planned or not (Galle et al., 2019). One study conducted in an urban area in Tanzania among married men reported that men who had four or more children were more than one and a half times likely to be involved in maternity care compared to those with fewer children (Gibore et al., 2019), while another study conducted in an urban area in Ghana among male participants whose partners had delivered within 12 months before the study (Craymah et al., 2017) reported one to three children as an enabler. One study conducted in Ghana (Craymah et al., 2017) reported that men in monogamous marriages had a higher likelihood of being involved in maternal healthcare compared to those in polygamous marriages. Several studies (Craymah et al., 2017; Ganle and Dery, 2015; Mekonen et al., 2022; Okafor et al., 2022) reported that men who had a higher educational level had a higher likelihood of being involved in maternal healthcare compared to those who had a lower educational level. Two studies conducted in urban areas in Ghana among pregnant women (Annoon et al., 2020) and married men (Craymah et al., 2017) revealed that men who stayed with their partners had higher chances of being involved in maternal healthcare compared to those who stayed apart, while one study conducted in Ethiopia among male partners of women who had delivered within a year of commencing the study (Mekonen et al., 2022) and another in Nigeria among men who were married or cohabiting with women who had delivered within five years of the start of the study (Okafor et al., 2022), revealed that men who had a good knowledge of maternal and child health were more likely to be involved. One study (Mekonen et al., 2022) revealed that men who stayed in urban areas and those who had a higher monthly income had a higher likelihood of being

**Table 1**  
Characteristics of included studies.

First author, publication year	Reference	Country where study was conducted	Aspect of maternal health studied	Research method	Participants	Data collection method	Data analysis method
Mapunda B., 2022.	<a href="#">Mapunda et al. (2022)</a>	Tanzania	Antenatal care (ANC)	Mixed-methods	428 nursing mothers and 2 focus group discussions (FGDs) of their male partners of 7 and 11 participants	A structured questionnaire and FGDs	Statistical analysis of quantitative data and thematic analysis of qualitative data
Gibore NS., 2020.	<a href="#">Gibore and Bali (2020)</a>	Tanzania	Maternal healthcare	Qualitative	236 participants in 16 FGDs for men, 16 FGDs for women, and 34 in-depth interviews (IDIs) with community leaders, village health workers and healthcare workers	FGDs and IDIs	Thematic analysis
Gibore NS., 2019.	<a href="#">Gibore et al. (2019)</a>	Tanzania	Maternal healthcare	Quantitative	966 married men	Structured questionnaire	Statistical analysis
Maluka SO., 2018.	<a href="#">Maluka and Peneza (2018)</a>	Tanzania	ANC and childbirth	Qualitative	53 participants who included pregnant women, women who had delivered within the last 12 months, male partners, health providers, traditional birth attendants, traditional leaders, village leaders, and district health managers.	Semi-structured individual interviews	Thematic analysis
Ganle JK., 2015.	<a href="#">Ganle and Dery (2015)</a>	Ghana	Maternal healthcare	Qualitative	12 FGDs with 7–12 men, 50 IDIs (25 with men and 25 with their spouses), and 30 key informant interviews (KIIs) with chiefs, women leaders, assemblymen, community health nurses, community health officers, and mother-to-mother support group leaders.	FGDs, IDIs, and KIIs	Thematic analysis
Morgan AK., 2022.	<a href="#">Morgan et al. (2022)</a>	Ghana	ANC	Qualitative	36 participants who included husbands, pregnant women with delivery experience, nursing mothers, pregnant women without delivery experience, male and female midwives, and traditional birth attendants.	IDIs	Thematic analysis
Bougangue B., 2017.	<a href="#">Bougangue and Ling (2017)</a>	Ghana	Maternal healthcare	Qualitative	93 husbands of women who were pregnant between 2008 and 2010	FGDs and IDIs	Thematic analysis
Annoon Y., 2020.	<a href="#">Annoon et al. (2020)</a>	Ghana	ANC	Quantitative	300 pregnant women	Questionnaire	Statistical analysis
Craymah JP., 2017	<a href="#">Craymah et al. (2017)</a>	Ghana	Maternal healthcare	Quantitative	100 male participants whose partners were pregnant or had given birth within 12 months preceding the study	Questionnaire	Statistical analysis
Ongolly FK., 2019.	<a href="#">Ongolly and Bukachi (2019)</a>	Kenya	ANC and Postnatal care (PNC)	Mixed-methods	140 men who included 96 men who took a survey, 40 who participated in FGDs, and 4 healthcare workers in charge of maternal health services at selected clinics	FGDs, IDIs, and KIIs	Statistical analysis for quantitative data and thematic analysis for qualitative data
Lusambili AM., 2021.	<a href="#">Lusambili et al. (2021)</a>	Kenya	Maternal healthcare	Qualitative	10 FGDs and 11 KIIs that included men and women	FGDs and KIIs	Thematic analysis
Okwako JM., 2023.	<a href="#">Okwako et al. (2023)</a>	Kenya	Maternal healthcare	Qualitative	3 FGDs among nurse-midwives and 2 among men with each FGD having 6–7 participants	FGDs	Thematic analysis
Manda-Taylor L., 2017.	<a href="#">Manda-Taylor et al. (2017)</a>	Malawi	Maternal healthcare	Mixed-methods	85 IDIs with traditional leaders, religious leaders, government officials, senior NGO officials, health personnel, health surveillance assistants, and traditional birth attendants, as well as 10 FGDs with 5–10 participants who included caregiver-husbands, caregiver-grandmothers + mother-in laws, pregnant women, and women with under-5 years children	FGDs and IDIs	Thematic analysis
Mkandawire E., 2018.	<a href="#">Mkandawire and Hendriks (2018)</a>	Malawi	Maternal healthcare	Qualitative	63 participants took place in IDIs, and majority were women. 7 FGDs were conducted with informants and community members.	FGDs and IDIs	Thematic analysis
Sakala D., 2021.	<a href="#">Sakala et al. (2021)</a>	Malawi	ANC and HIV testing	Qualitative	6 FGDs with 42 men and women, and 20 IDIs	FGDs and IDIs	Thematic analysis

(continued on next page)

Table 1 (continued)

First author, publication year	Reference	Country where study was conducted	Aspect of maternal health studied	Research method	Participants	Data collection method	Data analysis method
Mbadugha C.J., 2019.	<a href="#">Mbadugha et al. (2019)</a>	Nigeria	Maternal healthcare	Quantitative	145 men who were married or cohabiting with a woman who had delivered within two years prior to the study	Structured questionnaire	Statistical analysis
Okafor IP., 2022.	<a href="#">Okafor et al. (2022)</a>	Nigeria	ANC and PNC	Mixed-methods	418 men who were married or cohabiting with a woman who had delivered within five years prior to the study for the quantitative study and 1 FGD with 11 participants.	Structured interviewer-administered questionnaire and FGDs	Statistical analysis for quantitative data and thematic analysis for qualitative data
Teklesilasié W., 2020.	<a href="#">Teklesilasié and Deressa (2020)</a>	Ethiopia	Maternal healthcare	Qualitative	12 men and women for IDIs, 10 men and women for KIIs, and 10 FGDs (5 for men and 5 for women)	FGDs, IDIs, and KIIs	Thematic analysis
Mekonen M., 2022.	<a href="#">Mekonen et al. (2022)</a>	Ethiopia	ANC	Quantitative	816 men whose partners had babies less than 1 year.	Structured interviewer-administered questionnaire	Statistical analysis
Audet CM., 2016.	<a href="#">Audet et al. (2016)</a>	Mozambique	ANC	Qualitative	14 FGDs	FGDs	Thematic analysis
Galle A., 2019.	<a href="#">Galle et al. (2019)</a>	Mozambique	ANC	Qualitative	10 participants for KIIs, 3 couples for IDIs, 63 participants in 10 community FGDs, and 36 participants in 6 provider FGDs.	FGDs, IDIs, and KIIs	Thematic analysis
Lowe M., 2017.	<a href="#">Lowe (2017)</a>	Gambia	Maternal healthcare	Qualitative	50 rural married men for 5 FGDs and 6 traditional birth attendants for IDIs.	FGDs and IDIs	Thematic analysis
Nesane K., 2016.	<a href="#">Nesane et al. (2016)</a>	South Africa	Maternal healthcare	Qualitative	15 men whose partners had been pregnant within 2 years prior to the study	IDIs	Thematic analysis
Khulu ZA., 2022.	<a href="#">Khulu et al. (2022)</a>	Eswatini	ANC	Qualitative	8 midwives	IDIs	Thematic analysis
Bagenda F., 2021.	<a href="#">Bagenda et al. (2021)</a>	Uganda	Maternal healthcare	Qualitative	18 participants who included pregnant women, community health workers, unmarried males, elderly females, elderly males, health workers and Village Health Team members	IDIs	Thematic analysis
Odyá CP., 2023.	<a href="#">Odyá et al. (2023)</a>	Democratic Republic of Congo	ANC	Quantitative	357 married or common-law men	Questionnaire survey method and questionnaire-interview technique	Statistical analysis
Muloongo H., 2019.	<a href="#">Muloongo et al. (2019)</a>	Zambia	ANC	Qualitative	16 military men whose partners were attending ANC	IDIs	Thematic analysis

involved in maternal healthcare services. One study ([Mekonen et al., 2022](#)) revealed that younger men aged below 24 years had a higher chance of being involved in maternal healthcare services compared to men above the age of 24 years. One study conducted in Ghana among husbands, pregnant women, nursing mothers, midwives, and traditional birth attendants ([Morgan et al., 2022](#)), and another Zambian study among military men whose partners were attending ANC ([Muloongo et al., 2019](#)) revealed that men's desire to have a healthy family acted as an enabler to their involvement, while one study conducted in Mozambique among policymakers, healthcare workers, and community members ([Galle et al., 2019](#)) revealed that men were more likely to be involved if the pregnancy was planned.

**Health system factors.** Health system factors are attributes of healthcare institutions that influence access to and utilization of healthcare services. Health system factors in this review included distance to the healthcare facility ([Craymah et al., 2017](#); [Ganle and Dery, 2015](#)), the quality of maternal healthcare services ([Audet et al., 2016](#); [Ganle and Dery, 2015](#)), whether the services are male-friendly ([Sakala et al., 2021](#)), health education ([Audet et al., 2016](#); [Galle et al., 2019](#); [Ganle and Dery, 2015](#); [Lusambili et al., 2021](#); [Manda-Taylor et al., 2017](#); [Mkandawire and Hendriks, 2018](#); [Sakala et al., 2021](#)), preferential treatment of women who bring their partners ([Mkandawire and Hendriks, 2018](#);

[Morgan et al., 2022](#); [Muloongo et al., 2019](#); [Sakala et al., 2021](#)), community mobilization and engagement ([Galle et al., 2019](#); [Ganle and Dery, 2015](#)), and advocacy and messaging ([Galle et al., 2019](#); [Mkandawire and Hendriks, 2018](#); [Okafor et al., 2022](#)). One study conducted in rural and urban areas in Ghana among couples and other maternal health stakeholders ([Ganle and Dery, 2015](#)) and another in an urban area in Ghana among married men ([Craymah et al., 2017](#)) reported that men who stayed near a healthcare facility were more likely to be involved in maternal healthcare services, while one Ghanaian study ([Ganle and Dery, 2015](#)) and another in Mozambique among community members ([Audet et al., 2016](#)) revealed that good quality maternal healthcare services enabled men's involvement. Several studies ([Audet et al., 2016](#); [Galle et al., 2019](#); [Ganle and Dery, 2015](#); [Lusambili et al., 2021](#); [Manda-Taylor et al., 2017](#); [Mkandawire and Hendriks, 2018](#); [Sakala et al., 2021](#)) revealed that providing health education, especially peer education, may help make men get involved in maternal healthcare services. Four studies ([Mkandawire and Hendriks, 2018](#); [Morgan et al., 2022](#); [Muloongo et al., 2019](#); [Sakala et al., 2021](#)) revealed that offering preferential treatment to women who brought their partners to healthcare facilities when seeking maternal healthcare services enables men's involvement, while one Malawian study conducted among women and their partners in an urban area ([Sakala et al., 2021](#)) reported that male-friendly clinics enabled male involvement. Two studies ([Galle et al., 2019](#); [Ganle and Dery, 2015](#)) reported that community

**Table 2**  
Findings from included studies.

First author, year of publication	Reference	Findings	
		Enablers	Barriers
Mapunda B., 2022.	<a href="#">Mapunda et al. (2022)</a>		<p><b>Sociodemographic barriers</b></p> <ul style="list-style-type: none"> <li>-Couple interaction and conflicts.</li> <li>-Lack of knowledge in maternal healthcare among men.</li> </ul> <p><b>Cultural barriers</b></p> <ul style="list-style-type: none"> <li>-Males perceived maternal healthcare as a women's issue.</li> </ul> <p><b>Economic barriers</b></p> <ul style="list-style-type: none"> <li>-Males are too busy to attend.</li> <li>-Unable to sacrifice income-generating activities</li> </ul> <p><b>Health system barriers:</b></p> <ul style="list-style-type: none"> <li>-Uncomfortable environment for males in the ANC clinic.</li> <li>-Poor staff attitudes.</li> <li>-Long waiting time.</li> <li>-Inhibitive facility infrastructure.</li> </ul>
Gibore NS., 2020.	<a href="#">Gibore and Bali (2020)</a>		<p><b>Cultural barriers</b></p> <ul style="list-style-type: none"> <li>-Cultural barriers like being regarded as a weak man.</li> </ul> <p><b>Sociodemographic barriers</b></p> <ul style="list-style-type: none"> <li>-Pregnancy out of marriage.</li> <li>-Fear of testing for HIV.</li> <li>-Lack of knowledge and inadequate information.</li> </ul> <p><b>Economic barriers</b></p> <ul style="list-style-type: none"> <li>-Shame of being unable to buy the required medical supplies</li> </ul> <p><b>Health system-related factors</b></p> <ul style="list-style-type: none"> <li>-Long waiting time.</li> <li>-Long distance to health facilities and a shortage of reliable transport.</li> <li>-Bad attitude and behaviour of healthcare workers (HCWs).</li> <li>-Small consultation rooms and a lack of privacy in labor wards.</li> <li>-Demand for bribes from male partners for the women to receive medical supplies.</li> <li>-Shame experienced by men who are unable to buy the required supplies.</li> </ul>
Gibore NS., 2019.	<a href="#">Gibore et al. (2019)</a>	<b>Sociodemographic factors</b>	<p><b>Sociodemographic barriers</b></p> <ul style="list-style-type: none"> <li>-Lack of access to</li> </ul>

**Table 2 (continued)**

First author, year of publication	Reference	Findings	
		Enablers	Barriers
		-Having 4 or more children	<p>information on male involvement.</p> <ul style="list-style-type: none"> <li>-No spousal communication about maternal healthcare.</li> <li>-Staying in urban areas.</li> </ul> <p><b>Health system barriers</b></p> <ul style="list-style-type: none"> <li>-Extended waiting time at the health facilities.</li> </ul> <p><b>Cultural barriers</b></p> <ul style="list-style-type: none"> <li>-Traditional gender responsibilities for male and female partners.</li> </ul> <p><b>Sociodemographic barriers</b></p> <ul style="list-style-type: none"> <li>-Fear of testing for HIV.</li> </ul> <p><b>Health system barriers</b></p> <ul style="list-style-type: none"> <li>-Unfavourable environment in health facilities such as lack of privacy.</li> </ul>
Maluka SO., 2018.	<a href="#">Maluka and Peneza (2018)</a>		<p><b>Economic barriers</b></p> <ul style="list-style-type: none"> <li>-Males seen as breadwinners and largely involved in economic activities to provide for families.</li> <li>-Males competing responsibilities.</li> <li>-High costs of travelling to healthcare facilities.</li> </ul> <p><b>Cultural barriers</b></p> <ul style="list-style-type: none"> <li>-Maternal health care seen as a feminine domain.</li> <li>-Negative perceptions of male partners who escort their wives to maternal healthcare services by communities.</li> <li>-Males ashamed of being seen in 'female' places.</li> </ul> <p><b>Health system barriers</b></p> <ul style="list-style-type: none"> <li>-Negative attitudes of HCWs toward male partners.</li> <li>-Harsh treatment of women by HCWs.</li> <li>-Long waiting time.</li> <li>-No information about male involvement provided.</li> <li>-Lack of space for male partners to be accommodated.</li> <li>-Long distance to healthcare facilities and lack of appropriate transport.</li> </ul>
Ganle JK., 2015.	<a href="#">Ganle and Dery (2015)</a>	<p><b>Sociodemographic factors</b></p> <ul style="list-style-type: none"> <li>-Higher educational level of men.</li> </ul> <p><b>Health system factors</b></p> <ul style="list-style-type: none"> <li>-Short distance to the healthcare facility.</li> <li>-Community mobilization and engagement.</li> <li>-Promoting respectful and patient-centred care.</li> <li>-Health education</li> </ul>	<p><b>Economic barriers</b></p> <ul style="list-style-type: none"> <li>-Males seen as breadwinners and largely involved in economic activities to provide for families.</li> <li>-Males competing responsibilities.</li> <li>-High costs of travelling to healthcare facilities.</li> </ul> <p><b>Cultural barriers</b></p> <ul style="list-style-type: none"> <li>-Maternal health care seen as a feminine domain.</li> <li>-Negative perceptions of male partners who escort their wives to maternal healthcare services by communities.</li> <li>-Males ashamed of being seen in 'female' places.</li> </ul> <p><b>Health system barriers</b></p> <ul style="list-style-type: none"> <li>-Negative attitudes of HCWs toward male partners.</li> <li>-Harsh treatment of women by HCWs.</li> <li>-Long waiting time.</li> <li>-No information about male involvement provided.</li> <li>-Lack of space for male partners to be accommodated.</li> <li>-Long distance to healthcare facilities and lack of appropriate transport.</li> </ul>
Morgan AK., 2022.	<a href="#">Morgan et al. (2022)</a>	<b>Sociodemographic factors</b>	<p><b>Economic barriers</b></p> <ul style="list-style-type: none"> <li>-Men have to go to work to provide for the family</li> </ul>

(continued on next page)

Table 2 (continued)

First author, year of publication	Reference	Findings	
		Enablers	Barriers
		-Shifting gender roles where women are also contributing economically to the families. <b>Health system factors</b> -Giving priority to women who visit ANC with their male partners.	<b>Cultural barriers</b> -Maternal health is a women's issue <b>Health system barriers</b> -Lack of services aiming at males at the healthcare facilities. -Long waiting periods. -Poor attitudes of HCWs. -Little importance placed on male partners' involvement.
Bougangue B., 2017.	<a href="#">Bougangue and Ling (2017)</a>	<b>Policy factors</b> -Active involvement of males in maternal healthcare policy formulation.	<b>Cultural barriers</b> -Traditional gender role expectations. -Beliefs linked to unfaithfulness and protracted labor. -Beliefs in supernatural powers.
Annoon Y., 2020.	<a href="#">Annoon et al. (2020)</a>	<b>Sociodemographic factors</b> -Male living with their partners had a higher chance of being involved in ANC compared to those not living with their partners.	<b>Sociodemographic barriers</b> -Men 50–59 years old had a reduced likelihood of being involved in ANC compared to those 20–29 years old. -Separated/Divorced males had a reduced chance of being involved in ANC compared to those who were married.
			<b>Cultural barriers</b> -Maternal health is a responsibility of women <b>Health system barriers</b> -Long waiting times. -Long distance to the healthcare facility.
Craymah JP., 2017	<a href="#">Craymah et al. (2017)</a>	<b>Sociodemographic factors</b> -Partners living together -Having one to three children -monogamous marriage -Male partner having a tertiary educational level <b>Health system factors</b> -Short distance to healthcare facility	<b>Cultural barriers</b> -Prohibitive cultural norms <b>Economic barriers</b> -Men expected to be providers in the family <b>Health system barriers</b> -Unfavourable health policies
Ongolly FK., 2019.	<a href="#">Ongolly and Bukachi (2019)</a>		<b>Cultural barriers:</b> -Viewing maternal health issues as women's domain. <b>Economic barriers:</b> -Men's work make it impossible for them to join their wives due to time. -Lack of enough financial resources for the males to also

Table 2 (continued)

First author, year of publication	Reference	Findings	
		Enablers	Barriers
			accompany their partners. <b>Health system barriers:</b> -Lack of services directed toward men. -A lot of time at the healthcare facility. -Bad attitude of healthcare workers toward the males such as not being allowed into the consulting rooms or being asked uncomfortable questions. -Lack of emphasis on the involvement of males. -Lack of discretion and space for male partners at maternal health clinics.
Lusambili AM., 2021.	<a href="#">Lusambili et al. (2021)</a>		<b>Economic barriers</b> -Men have to work to provide for their families <b>Cultural barriers</b> -feminization of maternal healthcare services.
			<b>Health system factors</b> - Sharing community health status information with men, especially where the information is given by key leaders and peers.
Okwako JM., 2023.	<a href="#">Okwako et al. (2023)</a>		<b>Cultural barriers</b> -Belief that it is the responsibility of women. -Fear of being ridiculed by other men. <b>Economic barriers</b> -No time to leave economic activities for maternal healthcare. -Men always busy with work requirements. -No permission from work to attend maternal healthcare. -Not working near home. <b>Health system barriers</b> -Staff not supportive of men who attend maternal healthcare. -Bad staff attitude. -Long waiting times and queues. -Most staff members in the maternal healthcare are females. -No privacy at the healthcare facilities. -Lack of services directed towards men. -Men have nothing to do while waiting for their partners to be attended to.
			<b>Sociodemographic</b>

(continued on next page)



Table 2 (continued)

First author, year of publication	Reference	Findings	
		Enablers	Barriers
Manda-Taylor L., 2017.	<a href="#">Manda-Taylor et al. (2017)</a>	<p><b>Policy factors</b></p> <ul style="list-style-type: none"> <li>-Policy changes</li> </ul> <p><b>Health system factors</b></p> <ul style="list-style-type: none"> <li>-Peer education.</li> </ul>	<p><b>barriers</b></p> <ul style="list-style-type: none"> <li>-Fear of testing for HIV</li> <li>-Lack of knowledge and awareness</li> <li>-Fear of looking shameful.</li> </ul> <p><b>Cultural barriers</b></p> <ul style="list-style-type: none"> <li>-Gender roles at home</li> </ul> <p><b>Economic barriers</b></p> <ul style="list-style-type: none"> <li>-The need to provide for the family</li> </ul>
Mkandawire E., 2018.	<a href="#">Mkandawire and Hendriks (2018)</a>	<p><b>Sociodemographic factors</b></p> <ul style="list-style-type: none"> <li>-Men appreciating the impact they can have in maternal health if they get involved.</li> <li>-Pride of being considered the number 1 village in safe motherhood.</li> </ul> <p><b>Health system factors</b></p> <ul style="list-style-type: none"> <li>-Advocacy and messaging through NGOs and radios.</li> <li>-Incentives such as allowing women who are accompanied by their partners to be attended to first.</li> <li>-Having male champions delivering messages of safe motherhood to other men.</li> </ul>	<p><b>Cultural barriers</b></p> <ul style="list-style-type: none"> <li>-Men who escort their partners are usually stigmatized.</li> </ul> <p><b>Economic barriers</b></p> <ul style="list-style-type: none"> <li>-High associated costs involved in escorting partners for maternal healthcare.</li> </ul> <p><b>Health system barriers</b></p> <ul style="list-style-type: none"> <li>-Lack of favourable setting for men's involvement in maternal healthcare.</li> </ul>
Sakala D., 2021.	<a href="#">Sakala et al. (2021)</a>	<p><b>Health system factors</b></p> <ul style="list-style-type: none"> <li>-Priority consultation for couples.</li> <li>-Health education for the benefit of male partners.</li> <li>-Male friendly clinics</li> </ul>	<p><b>Cultural barriers</b></p> <ul style="list-style-type: none"> <li>-ANC traditionally considered to be spaces restricted to women.</li> <li>-Men who attend ANC are ridiculed.</li> </ul> <p><b>Economic barriers</b></p> <ul style="list-style-type: none"> <li>-Opportunity costs/ time constraints/food insecurity</li> </ul> <p><b>Sociodemographic barriers</b></p> <ul style="list-style-type: none"> <li>-Fear to test for HIV</li> </ul>
Mbadugha CJ., 2019.	<a href="#">Mbadugha et al. (2019)</a>		<p><b>Health system barriers</b></p> <ul style="list-style-type: none"> <li>-No healthcare institutions that include male partners in maternity care.</li> </ul> <p><b>Economic barriers</b></p> <ul style="list-style-type: none"> <li>-Work timetable of the male partner.</li> <li>-Financial status.</li> </ul> <p><b>Cultural barriers</b></p> <ul style="list-style-type: none"> <li>-Maternal health is a domain of women</li> </ul> <p><b>Sociodemographic barriers</b></p> <ul style="list-style-type: none"> <li>-No knowledge on the responsibility of men in maternity care.</li> <li>-Refusal of support from female partner.</li> </ul>
Okafor IP., 2022.	<a href="#">Okafor et al. (2022)</a>	<p><b>Sociodemographic factors</b></p> <ul style="list-style-type: none"> <li>-Higher educational</li> </ul>	<p><b>Cultural barriers</b></p> <ul style="list-style-type: none"> <li>-Maternal health should be left for</li> </ul>

Table 2 (continued)

First author, year of publication	Reference	Findings			
		Enablers	Barriers		
			<p>level of the male partner.</p> <ul style="list-style-type: none"> <li>-Having a good knowledge of maternal and child health.</li> </ul> <p><b>Health system factors</b></p> <ul style="list-style-type: none"> <li>-Health and gender messaging/advocacy.</li> </ul>	<p>women</p> <p><b>Economic barriers</b></p> <ul style="list-style-type: none"> <li>-Time constraints.</li> <li>-Financial capacity of the man</li> </ul> <p><b>Health system barriers</b></p> <ul style="list-style-type: none"> <li>-Bad attitude of healthcare workers</li> </ul> <p><b>Individual barriers</b></p> <ul style="list-style-type: none"> <li>-Family background.</li> </ul> <p><b>Cultural barriers</b></p> <ul style="list-style-type: none"> <li>-Childbearing is a process that occurs naturally.</li> <li>-Pregnancy and childbearing are issues for women.</li> </ul> <p><b>Sociodemographic barriers</b></p> <ul style="list-style-type: none"> <li>-Lack of awareness and knowledge.</li> </ul> <p><b>Health system barriers</b></p> <ul style="list-style-type: none"> <li>-Lack of guidelines for HCWs to involve men.</li> </ul> <p><b>Cultural barriers</b></p> <ul style="list-style-type: none"> <li>-Belief that it is a women's affair.</li> </ul> <p><b>Health system barriers</b></p> <ul style="list-style-type: none"> <li>-Health facility not friendly.</li> </ul> <p><b>Sociodemographic barriers</b></p> <ul style="list-style-type: none"> <li>-Low ANC knowledge.</li> <li>-Low monthly income.</li> </ul> <p><b>Cultural barriers</b></p> <ul style="list-style-type: none"> <li>-Social stigmatization of partner support.</li> <li>-Pregnancy is seen as a woman's responsibility.</li> </ul> <p><b>Sociodemographic barriers</b></p> <ul style="list-style-type: none"> <li>-Fear of HIV testing.</li> </ul> <p><b>Sociodemographic barriers</b></p> <ul style="list-style-type: none"> <li>-Lack of knowledge.</li> <li>-Fear of HIV testing and stigma.</li> <li>-Changing relationship dynamics and distrust during pregnancy.</li> <li>-Polygamy and extramarital relationships.</li> </ul> <p><b>Economic barriers</b></p> <ul style="list-style-type: none"> <li>-Competing responsibilities.</li> </ul> <p><b>Cultural barriers</b></p> <ul style="list-style-type: none"> <li>-Gender norms.</li> <li>-Fear of embarrassment.</li> </ul> <p><b>Health system barriers</b></p> <ul style="list-style-type: none"> <li>-Lack of privacy.</li> <li>-Lack of competent providers.</li> <li>-No clear policy for male involvement.</li> </ul>	
Teklesilase W., 2020.	<a href="#">Teklesilase and Deressa (2020)</a>				
Mekonen M., 2022.	<a href="#">Mekonen et al. (2022)</a>			<p><b>Sociodemographic factors</b></p> <ul style="list-style-type: none"> <li>-Staying in urban areas.</li> <li>-Having a diploma or above.</li> <li>-High ANC knowledge</li> <li>-High monthly income</li> </ul>	
Audet CM., 2016.	<a href="#">Audet et al. (2016)</a>			<p><b>Health system factors</b></p> <ul style="list-style-type: none"> <li>-Good attitude of HCWs.</li> <li>-Peer education</li> <li>-Male engagement</li> </ul>	
Galle A., 2019.	<a href="#">Galle et al. (2019)</a>			<p><b>Sociodemographic factors</b></p> <ul style="list-style-type: none"> <li>-Younger age group.</li> <li>-Planned pregnancy.</li> </ul> <p><b>Health system factors</b></p> <ul style="list-style-type: none"> <li>-Community engagement.</li> <li>-Peer education.</li> <li>-Mass campaigns and social media.</li> </ul> <p><b>Policy factors</b></p> <ul style="list-style-type: none"> <li>-Parental leave.</li> </ul>	

(continued on next page)

Table 2 (continued)

First author, year of publication	Reference	Findings	
		Enablers	Barriers
Lowe M., 2017.	<a href="#">Lowe (2017)</a>		<p><b>Cultural barriers</b></p> <ul style="list-style-type: none"> <li>-Pregnancy and delivery seen as an issue for women.</li> </ul> <p><b>Economic barriers</b></p> <ul style="list-style-type: none"> <li>-Male partners' contending duties.</li> </ul> <p><b>Sociodemographic barriers</b></p> <ul style="list-style-type: none"> <li>-Contention among co-wives in polygamous marriages.</li> </ul> <p><b>Cultural barriers</b></p> <ul style="list-style-type: none"> <li>-Women are responsible for maternal health</li> </ul>
Nesane K., 2016.	<a href="#">Nesane et al. (2016)</a>		<p><b>Cultural barriers</b></p> <ul style="list-style-type: none"> <li>-Maternal health viewed as an issue for women.</li> </ul> <p><b>Health system barriers</b></p> <ul style="list-style-type: none"> <li>-Long distance from workplace to home.</li> <li>-Long waiting times at the healthcare institutions.</li> <li>-Health system unwelcoming, unsupportive, and intimidating.</li> </ul> <p><b>Economic barriers</b></p>
Khulu ZA., 2022.	<a href="#">Khulu et al. (2022)</a>		<p><b>Health system barriers</b></p> <ul style="list-style-type: none"> <li>-Lack of enough staff.</li> <li>-Absence of guiding policies.</li> <li>-Bad attitude of HCWs</li> </ul> <p><b>Economic barriers</b></p> <ul style="list-style-type: none"> <li>-Lack of time due to economic activities.</li> <li>-Contending duties.</li> </ul> <p><b>Cultural barriers</b></p> <ul style="list-style-type: none"> <li>-Social shame and cultural taboo.</li> </ul> <p><b>Sociodemographic barriers</b></p> <ul style="list-style-type: none"> <li>-Cohabiting behaviour.</li> </ul>
Bagenda F., 2021.	<a href="#">Bagenda et al. (2021)</a>		<p><b>Sociodemographic barriers</b></p> <ul style="list-style-type: none"> <li>-Ignorance/lack of knowledge.</li> <li>-Neglecting their responsibilities due to distraction.</li> <li>-Excessive alcohol intake.</li> <li>-Laziness.</li> <li>-Poor attitudes toward maternal healthcare.</li> <li>-Lack of trust, cooperation and domestic violence.</li> <li>-Infidelity issues.</li> <li>-Unplanned pregnancy.</li> <li>-Extended family attitudes and perceptions</li> </ul> <p><b>Cultural and gender factors</b></p>

Table 2 (continued)

First author, year of publication	Reference	Findings	
		Enablers	Barriers
Ody CP., 2023.	<a href="#">Ody et al. (2023)</a>		<ul style="list-style-type: none"> <li>-community perspectives about male involvement.</li> </ul> <p><b>Economic barriers</b></p> <ul style="list-style-type: none"> <li>-Lack of money.</li> <li>-Work-related issues.</li> </ul> <p><b>Health system factors</b></p> <ul style="list-style-type: none"> <li>-Long waiting times.</li> <li>-Bad attitudes of HCWs.</li> <li>-Availability and access to healthcare services.</li> </ul> <p><b>Sociodemographic barriers</b></p> <ul style="list-style-type: none"> <li>-Negative perception and feeling of embarrassment.</li> <li>-No knowledge about the importance of ANC.</li> </ul> <p><b>Economic barriers</b></p> <ul style="list-style-type: none"> <li>-Financial difficulties.</li> <li>-Job requirements.</li> </ul> <p><b>Health system barriers</b></p> <ul style="list-style-type: none"> <li>-Poor reception from HCWs.</li> <li>-Low mobilization of men.</li> <li>-Unsuitable infrastructure.</li> <li>-Distance to healthcare facility.</li> <li>-Long waiting time.</li> </ul>
Muloongo H., 2019.	<a href="#">Muloongo et al. (2019)</a>		<p><b>Health system factors</b></p> <ul style="list-style-type: none"> <li>-Privileges given to couples.</li> </ul> <p><b>Sociodemographic factors</b></p> <ul style="list-style-type: none"> <li>-The wish to have a healthy mother and baby.</li> <li>-The wish to be part of decision-making.</li> </ul> <p><b>Cultural barriers</b></p> <ul style="list-style-type: none"> <li>-ANC seen as a domain of women.</li> </ul> <p><b>Sociodemographic barriers</b></p> <ul style="list-style-type: none"> <li>-Lack of awareness.</li> <li>-Fear of HIV test.</li> </ul> <p><b>Health system barriers</b></p> <ul style="list-style-type: none"> <li>-Belief that attendance of male partner would affect care.</li> </ul> <p><b>Economic barriers</b></p> <ul style="list-style-type: none"> <li>-Competing work responsibilities.</li> </ul>

mobilization and engagement improve men's involvement, while three studies (Galle, et al., 2019; Mkandawire and Hendriks, 2018; Okafor et al., 2022) revealed that advocacy and messaging through mass media and non-governmental organizations improve men's involvement.

**Policy factors.** Regulations that a government or administration enforces are policy factors. Policy factors identified in this review included the active involvement of males in maternal healthcare policy formulation and policy changes (Bougangue and Ling, 2017; Galle et al., 2019; Okafor et al., 2022), as well as offering parental leave (Galle et al., 2019). One Ghanaian study conducted among married men and other community maternal health stakeholders (Bougangue and Ling, 2017) revealed that decentralizing health planning from the district level to the community level ensured that more men were involved in the planning since more men are leaders in their communities, while another (Galle et al., 2019) revealed that offering parental leave to men who accompanied their partners to healthcare facilities for maternal healthcare

services would enable male involvement.

#### *Barriers to men's involvement in maternal healthcare services*

We categorized barriers to men's involvement in maternal healthcare services into sociodemographic, cultural, economic, and health system barriers.

**Sociodemographic factors.** Sociodemographic barriers to men's involvement included age (Annoon et al., 2020), marital status (Annoon et al., 2020), couple interaction (Galle et al., 2019; Gibore et al., 2019; Maluka and Peneza, 2018; Mapunda et al., 2022; Mbadugha et al., 2019), fear of HIV testing (Audet et al., 2016; Galle et al., 2019; Gibore and Bali, 2020; Maluka and Peneza, 2018; Muloongo et al., 2019; Okwako et al., 2023; Sakala et al., 2021), and lack of maternal health knowledge (Bagenda et al., 2021; Ganle and Dery, 2015; Gibore et al., 2019; Mapunda et al., 2022; Mbadugha et al., 2019; Mekonen et al., 2022; Muloongo et al., 2019; Ody et al., 2023; Okwako et al., 2023; Teklesilasie and Deressa, 2020). One study conducted in Ghana (Annoon et al., 2020) revealed that men who were within the 50–59 age group were less likely to be involved in maternal healthcare services compared to those who were in the 20–29 years age group. Separated or divorced men were less likely to be involved in maternal healthcare services compared to married men (Annoon et al., 2020). One Tanzanian study conducted at a teaching hospital among breastfeeding women and their male partners (Mapunda et al., 2022) revealed that men who did not discuss maternal healthcare issues with their partners or always had conflicts in their relationships were less likely to be involved in maternal healthcare services.

**Cultural factors.** Cultural factors are people's attributes that are determined by their beliefs. Cultural barriers included beliefs about maternal health being a woman's issue (Annoon et al., 2020; Audet et al., 2016; Bougangue and Ling, 2017; Craymah et al., 2017; Galle et al., 2019; Ganle and Dery, 2015; Lowe, 2017; Lusambili et al., 2021; Maluka and Peneza, 2018; Manda-Taylor et al., 2017; Mapunda et al., 2022; Mbadugha et al., 2019; Mekonen et al., 2022; Morgan et al., 2022; Nesane et al., 2016; Okafor et al., 2022; Okwako et al., 2023; Ongolly and Bukachi, 2019; Sakala et al., 2021; Teklesilasie and Deressa, 2020), the relationship between infidelity and prolonged labor (Bougangue and Ling, 2017), and stigma associated with attending maternal healthcare services (Audet et al., 2016; Bagenda et al., 2021; Galle et al., 2019; Ganle and Dery, 2015; Gibore and Bali, 2020; Khulu et al., 2022; Mkandawire and Hendriks, 2018; Okwako et al., 2023; Sakala et al., 2021). One study conducted in Ghana (Bougangue and Ling, 2017) revealed that in communities where there was a belief that infidelity was associated with prolonged labor, older women did not permit men to escort their partners for childbirth. One Ghanaian study (Ganle and Dery, 2015) revealed that some men were ashamed of being involved because of the negative perceptions that are associated with such acts, while another (Bougangue and Ling, 2017) revealed that men were not willing to be involved in maternal healthcare because their communities would believe that they were bewitched by their partners.

**Economic factors.** Economic factors are characteristics that influence an individual's financial standing in society. Economic barriers included men being involved in economic activities to provide for their families (Bagenda et al., 2021; Craymah et al., 2017; Galle et al., 2019; Ganle and Dery, 2015; Gibore and Bali, 2020; Khulu et al., 2022; Lusambili et al., 2021; Manda-Taylor et al., 2017; Mapunda et al., 2022; Mbadugha et al., 2019; Morgan et al., 2022; Muloongo et al., 2019; Nesane et al., 2016; Ody et al., 2023; Okafor et al., 2022; Okwako et al., 2023; Ongolly and Bukachi, 2019; Sakala et al., 2021), being unable to afford to accompany their partners (Bagenda et al., 2021; Ganle and Dery, 2015; Mbadugha et al., 2019; Mkandawire and Hendriks, 2018; Ody et al., 2023; Okafor et al., 2022; Ongolly and Bukachi, 2019), the shame of being unable to buy the required medical supplies (Gibore and Bali, 2020), and working

far away from home (Okwako et al., 2023). Several studies (Bagenda et al., 2021; Galle et al., 2019; Ganle and Dery, 2015; Gibore and Bali, 2020; Khulu et al., 2022; Lowe, 2017; Lusambili et al., 2021; Manda-Taylor et al., 2017; Mapunda et al., 2022; Mbadugha et al., 2019; Morgan et al., 2022; Muloongo et al., 2019; Nesane et al., 2016; Ody et al., 2023; Okafor et al., 2022; Okwako et al., 2023; Ongolly and Bukachi, 2019; Sakala et al., 2021) revealed that men reported that they were too busy to attend maternal healthcare services with their partners because they were expected to provide for the families. They revealed that sacrificing economic activities to attend maternal healthcare services would affect their ability to fend for their families. Some studies (Bagenda et al., 2021; Ganle and Dery, 2015; Mbadugha et al., 2019; Mkandawire and Hendriks, 2018; Ody et al., 2023; Okafor et al., 2022; Ongolly and Bukachi, 2019) also reported that some men did not get involved in maternal healthcare because they did not have enough financial resources to cover their partner and themselves to attend the services. One Kenyan study conducted among men and nurse midwives (Okwako et al., 2023) reported that men working away from home found it expensive to return and accompany their partners for maternal healthcare services and that some employers were not willing to provide leave for men to attend maternal healthcare services.

**Health system factors.** Health system barriers included an unfriendly environment for men (Galle et al., 2019; Gibore and Bali, 2020; Maluka and Peneza, 2018; Manda-Taylor et al., 2017; Mapunda et al., 2022; Mbadugha et al., 2019; Mekonen et al., 2022; Mkandawire and Hendriks, 2018; Nesane et al., 2016; Okafor et al., 2022; Ongolly and Bukachi, 2019), bad attitude of healthcare workers (Bagenda et al., 2021; Ganle and Dery, 2015; Gibore and Bali, 2020; Khulu et al., 2022; Mapunda et al., 2022; Morgan et al., 2022; Ody et al., 2023; Okafor et al., 2022; Okwako et al., 2023; Ongolly and Bukachi, 2019), long waiting times (Annoon et al., 2020; Bagenda et al., 2021; Ganle and Dery, 2015; Gibore et al., 2019; Gibore and Bali, 2020; Mapunda et al., 2022; Nesane et al., 2016; Ody et al., 2023; Okwako et al., 2023; Ongolly and Bukachi, 2019), long distance to healthcare facilities or unreliable transport (Annoon et al., 2020; Bagenda et al., 2021; Ganle and Dery, 2015; Gibore and Bali, 2020; Nesane et al., 2016; Ody et al., 2023), demand for bribes at healthcare facilities (Gibore and Bali, 2020), a lack of services targeting men at healthcare facilities (Morgan et al., 2022; Okwako et al., 2023; Ongolly and Bukachi, 2019), and little or no emphasis or guidelines on the participation of men in maternal healthcare services (Craymah et al., 2017; Galle et al., 2019; Khulu et al., 2022; Morgan et al., 2022; Ody et al., 2023; Ongolly and Bukachi, 2019; Teklesilasie and Deressa, 2020). The unfriendly environments reported in Tanzania (Gibore et al., 2019) and Ghana (Ganle and Dery, 2015) include tiny consultation rooms that could not accommodate male partners, and little privacy, especially in labor wards due to inadequate infrastructure (Gibore et al., 2019). One Tanzanian study (Gibore and Bali, 2020) reported that some men avoided accompanying their partners because healthcare workers would ask for bribes for their partners to receive supplies and services that are usually offered for free.

## **Discussion**

The review revealed that men who had more children, a higher level of education, a higher income, good knowledge of maternal health, were younger, and stayed in urban areas had a higher likelihood of being involved in maternal healthcare services. Additionally, the current review found that having services that are male-friendly, having a short travel time to the healthcare facility, and offering high-quality maternal healthcare services are all aspects of the health system that facilitate men's involvement in maternal healthcare. This scoping review revealed that involving men in maternal health policy formulation and implementation, as well as offering paternal leave, are enablers of male involvement. Sociodemographic barriers to men's involvement in

maternal healthcare services identified include poor couple interaction, fear of HIV testing, and a lack of MCH knowledge. Cultural barriers revealed in this review include the belief that maternal healthcare is a women's issue and the stigma associated with men's involvement, while economic barriers include being involved in other economic activities and a lack of financial resources. The health system barriers identified include unfriendly facility environments for men, long waiting times, and a lack of services targeting men.

The finding that men who had more children had a higher likelihood of being involved in maternal healthcare services is not similar to that of a study conducted in India, which revealed that men with fewer than three children had higher chances of attending ANC visits compared to those with more children (Chattopadhyay and Govil, 2020). The results of the current review could be because men who have more children may have received information on the importance of their involvement during previous pregnancies. The finding that men who had a higher level of education had higher chances of being involved in maternal healthcare services compared to those who had a lower level of education concurs with that of a study carried out in Nepal, which revealed that literate men had a higher likelihood of being involved in reproductive health compared to those who were not literate (Sharma et al., 2018). Men who have a higher level of education are more likely to be aware of the importance of their involvement in maternal healthcare services, which may encourage them to get involved. Additionally, men with higher levels of education might be better able to oppose socially assigned gender roles and obligations, which could prevent males from participating in maternal healthcare (Yadav et al., 2021).

This study revealed that men who had a good knowledge of maternal health were more likely to be involved in maternal healthcare compared to those who had poor knowledge, and this concurs with the results of an earlier systematic review that reported that men's knowledge of maternal health is directly proportional to the level of support they give to their partners (Masaba and Mmusi-Phetoe, 2020). The definition of good knowledge was not clearly defined in the included studies, making it difficult to replicate the studies. However, the findings can be explained by the fact that men who are highly knowledgeable about maternal health are likely to know the benefits of their involvement in maternal healthcare and may be more willing to be involved (Sharma et al., 2018). It was revealed in this study that younger men were more likely to be involved in maternal healthcare services compared to older men. This contrasts with that of a study conducted in Indonesia, which reported that older men had higher involvement rates in maternal healthcare compared to younger men (Guspianto and Asyary, 2022). The finding of this review is plausible because younger men in SSA are less likely to adhere to cultural practices compared to older men (Isokon et al., 2022), and this may allow them to get more involved in maternal healthcare services.

The finding that men who stay in urban areas are more likely to be involved in maternal healthcare concurs with that of a study conducted in Bangladesh, which revealed that urban residency was associated with a higher likelihood of men being involved in reproductive healthcare (Bishwajit et al., 2017). The possible reason for this is that healthcare facilities are closer to where people live in towns, making it easier for them to access the facilities (Samuel et al., 2021). Moreover, people in urban areas have better access to the media, which is usually used to provide information about maternal health. In addition, this review revealed that men who had a high income were more likely to be involved in maternal healthcare, and this finding concurs with that of a study conducted in India, which reported that men with a high income were more likely to be involved in ANC compared to those who had a low income (Paul and Pandey, 2023). These findings are plausible because men with a high income are likely to be able to afford transportation fees and other opportunity costs associated with maternal healthcare (Yadav et al., 2021).

A short distance to the healthcare facility may result in a couple walking to the facility, resulting in them not spending money on

transport. Good quality maternal healthcare may lead to satisfaction among women, who may convince their partners to accompany them (Machira and Palamuleni, 2018), while male-friendly services may ensure that men are comfortable at the facilities when they accompany their partners (Gyan et al., 2022). This review also revealed that health education and preferential treatment of women who bring partners for maternal healthcare are enablers of male involvement. Health education ensures that men are informed about the importance of their involvement, which may motivate them to get involved (Adamu et al., 2020). Women may try to persuade their partners to get involved if they receive preferential treatment when they are with their partners (Peneza and Maluka, 2018), which will result in more men accompanying the women. Involving men in maternal health policy formulation and implementation may make them feel that they own the policies, which will ensure their buy-in (Maluka et al., 2020). Offering men who need to accompany their partners to seek maternal healthcare services time off work allows them to do so without losing their financial incomes.

The sociodemographic barriers revealed in this review concur with those of a study conducted in Iran, which revealed that misunderstanding between couples, a lack of maternal health knowledge, and hidden fears were barriers to men's involvement in maternal healthcare (Hajian et al., 2022). If couples have poor interaction, they are unlikely to discuss the importance of men's involvement in maternal healthcare. Additionally, couples who lack information about maternal healthcare services are less likely to see the importance of their involvement. The cultural barriers identified in this review concur with those of a study conducted in India, which also revealed that men viewed maternal health as an issue for women, and those who attended were stigmatized in their communities (Jungari and Paswan, 2020). It is understandable why some men might shy away from maternal healthcare because doing so would put them in danger of ridicule from their communities (Aborigo et al., 2018). The economic barriers revealed in the current study are similar to those of a study conducted in Iran, which revealed that men failed to be involved because of other work responsibilities required to take care of the families and a lack of the required resources to accompany their partners (Hajian et al., 2022). Although there is a fee exemption for maternal healthcare services in some countries in SSA, there are other associated costs, like transport to the healthcare facilities (Dahab and Sakellariou, 2020). As a result, men with a low income may opt to just pay for their partners to attend maternal healthcare services. A review that included studies conducted globally (Roudsari et al., 2023) also reported the health system barriers reported in this review. The availability of male-friendly healthcare facilities, the good attitude of healthcare workers, and adequate facilities to cater to male partners are therefore crucial for men to be involved in maternal healthcare services (Roudsari et al., 2023).

To ensure that there is adequate space to accommodate men at maternal healthcare services, we recommend an appointment system be implemented to ensure that women and their male partners do not seek services at the same time (Roudsari et al., 2023). Increasing the operating hours of maternal healthcare services to include evenings, weekends, and holidays may also help in the availability of space for male partners (Ditekemena et al., 2012). However, this may require task-shifting, where the duties of midwives are delegated to registered nurses, after adequate training. Healthcare workers should also write invitation letters to male partners of women who attend maternal healthcare services alone (Ditekemena et al., 2012). This may improve men's involvement since healthcare workers are respected members of the community. Additionally, we advise that men participate in the creation and implementation of maternal health policies alongside women (Maluka et al., 2020), that community health workers educate men about maternal health in their communities (Peneza and Maluka, 2018), and that both men and women should have access to economic empowerment so they can afford the costs associated with maternal healthcare services (Chereni et al., 2022). We recommend that men's involvement be adapted to local community norms so that harmful

gender norms can be reduced, while promoting women's autonomy in terms of spousal communication and shared decision-making (Roudsari et al., 2023). Healthcare workers should also be trained on how to provide respectful maternal healthcare services and involve men accompanying their partners (Mapunda et al., 2022).

### Strengths and limitations

One of the strengths of this review is that it followed a PRISMA-ScR checklist, which allows for a replication of the study. Another strength is that two reviewers independently screened the titles, abstracts, and full texts, which allowed for the discovery of errors during the process. However, this review used articles published in English, which may have resulted in a language bias. Another limitation is that only five databases were used for the literature search, and this may have resulted in some relevant articles being missed. In addition, twelve of the studies included in the review were conducted in three countries, which raises questions about the generalizability of the findings to other countries in the region. Another factor that may hinder the generalizability of our findings is that the studies were conducted in countries with different cultures. The lack of critical quality appraisal of the included studies might also be a potential limitation to our review.

### Implications for future research

The evidence base must be strengthened as far as country representation is concerned in future studies. We therefore suggest that an international study covering a representative sample of all the countries in the SSA be conducted. This study should ensure that the definition of men's involvement is similar in all countries included in the study to ensure the generalizability of the findings. Future research may be required to find out reasons why men with more than three children are unlikely to be involved in maternal healthcare in SSA, as well as which component of maternal healthcare men are more unlikely to be involved in. Such information may help policymakers decide which components of maternal healthcare services should be targeted for interventions to provide optimal results. Furthermore, we also suggest that further studies specifically focusing on metrics assessing men's involvement in maternal healthcare services be conducted in SSA to determine the extent of their involvement.

### Conclusion

Reducing maternal mortality in SSA requires an improvement in men's involvement in maternal healthcare services since it has several benefits for maternal health. There are several barriers to male participation in maternal healthcare that can be categorized into sociodemographic, cultural, economic, and health system barriers. There are also several enablers to men's involvement that can be divided into socio-demographic, health system, and policy factors. Improving men's involvement in maternal healthcare services requires several strategies that include economic empowerment of both men and women, health education, and the provision of adequate infrastructure in healthcare facilities to accommodate men.

### Funding

This study was not funded.

### CRedit authorship contribution statement

**Enos Moyo:** Conceptualization, Formal analysis, Investigation, Writing – original draft. **Tafadzwa Dzinamarira:** Writing – review & editing. **Perseverance Moyo:** Writing – review & editing. **Grant Murwanhema:** Writing – review & editing. **Andrew Ross:** Writing – review & editing, Supervision.

### Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

### Supplementary materials

Supplementary material associated with this article can be found, in the online version, at doi:10.1016/j.midw.2024.103993.

### References

- Aborigo, R., Reidpath, D., Oduro, A., Allotey, P., 2018. Male involvement in maternal health: perspectives of opinion leaders. *BMC Pregnancy. ChildBirth* 18 (1), 3. <https://doi.org/10.1186/s12884-017-1641-9>.
- Adamu, H., Oche, O., Kaoje, A., 2020b. Effect of health education on the knowledge, attitude and involvement by male partners in birth preparedness and complication readiness in rural communities of Sokoto State, Nigeria. *Am. J. Public Health Res.* 8 (5), 163–175. <https://doi.org/10.12691/ajphr-8-5-5>.
- Adeniran, A.S., Aboyeji, A.P., Fawole, A.A., Balogun, O.R., Adesina, K.T., Adeniran, P.I., 2015. Male partner's role during pregnancy, labour and delivery: expectations of pregnant women in Nigeria. *Int. J. Health Sci. (Qassim)* 9 (3), 305–313.
- Annoon, Y., Hormenu, T., Ahinkorah, B.O., Seidu, A.A., Ameyaw, E.K., Sambah, F., 2020. Perception of pregnant women on barriers to male involvement in antenatal care in Sekondi, Ghana. *Heliyon* 6 (7), E04434. <https://doi.org/10.1016/j.heliyon.2020.e04434>.
- Audet, C.M., Chire, Y.M., Vaz, L.M., Bechtel, R., Carlson-Bremer, D., et al., 2016. Barriers to male involvement in antenatal care in rural Mozambique. *Qual. Health Res.* 26 (12), 1721–1731. <https://doi.org/10.1177/1049732315580302>.
- Bagenda, F., Batwala, V., Orach, C.G., Nabiwemba, E., Atuyambe, L., 2021. Benefits of and barriers to male involvement in maternal health care in Ibanda District, Southwestern, Uganda. *Open. J. Prev. Med.* 11 (12), 411–424. <https://doi.org/10.4236/ojpm.2021.1112032>.
- Bishwajit, G., Tang, S., Yaya, S., Ide, S., Fu, H., Wang, M., et al., 2017. Factors associated with male involvement in reproductive care in Bangladesh. *BMC Public Health* 17 (1), 3. <https://doi.org/10.1186/s12889-016-3915-y>.
- Bougangue, B., Ling, H., 2017. Male involvement in maternal healthcare through Community-based Health Planning and Services: the views of the men in rural Ghana. *BMC Public Health* 17 (1), 693. <https://doi.org/10.1186/s12889-017-4680-2>.
- Bramer, W., Rethlefsen, M., Kleijnen, J., Franco, O., 2017. Optimal database combinations for literature searches in systematic reviews: a prospective exploratory study. *Syst. Rev.* 6 (1), 245. <https://doi.org/10.1186/s13643-017-0644-y>.
- Chattopadhyay, A., Govil, D., 2020. Men and maternal health care utilization in India and in selected less-developed states: evidence from a large-scale survey 2015–16. *J. Biosoc. Sci.* 53 (5), 724–744. <https://doi.org/10.1017/S0021932020000498>.
- Chereni, A., Nyathi, N., Mbizo, J., 2022. Male partner involvement in health interventions: a systematic review of best practices in Sub-Saharan Africa. *J. Pract. Teach. Learn.* 19 (1–2), 87–113. <https://doi.org/10.1921/jpts.v19i1-2.1680>.
- Craymah, J., Oppong, R., Tuoyire, D., 2017. Male involvement in maternal health care at Anomabo, Central Region, Ghana. *Int. J. Reprod. Med.*, 2017:2929013. <https://doi.org/10.1155/2017/2929013>.
- Dahab, R., Sakellariou, D., 2020. Barriers to accessing maternal care in low income countries in Africa: a systematic review. *Int. J. Environ. Res. Public Health*, 17(12): 4292. <https://doi.org/10.3390/ijerph17124292>.
- Danforth, E.J., Kruk, M.E., Rockers, P.C., Mbaruku, G., Galea, S., 2009. Household decision-making about delivery in health facilities: evidence from Tanzania. *J. Health Popul. Nutr.* 27 (5), 696–703. <https://doi.org/10.3329/jhpn.v27i5.3781>.
- Ditekemena, J., Koole, O., Engmann, C., Matendo, R., Tshetu, A., Ryder, R., et al., 2012. Determinants of male involvement in maternal and child health services in sub-Saharan Africa: a review. *Reprod. Health* 9 (1), 32. <https://doi.org/10.1186/1742-4755-9-32>.
- Endnote Team. Endnote (Released in 2013), 2013. Available from: <https://endnote.com/product-details> (Accessed: 15 October 2023).
- Ewald, H., Klerings, I., Wagner, G., Heise, T.L., Stratil, J.M., Lhachimi, S.K., et al., 2022. Searching two or more databases decreased the risk of missing relevant studies: a meta-research study. *J. Clin. Epidemiol.* 149, 154–164. <https://doi.org/10.1016/j.jclinepi.2022.05.022>.
- Galle, A., Cossa, H., Griffin, S., Osman, N., Roelens, K., Degomme, O., 2019. Policymaker, health provider and community perspectives on male involvement during pregnancy in southern Mozambique: a qualitative study. *BMC Pregnancy. ChildBirth* 19 (1), 384. <https://doi.org/10.1186/s12884-019-2530-1>.
- Galle, A., Plaieser, G., Van Steenstraeten, T., Griffin, S., Osman, N.B., Roelens, K., et al., 2021. Systematic review of the concept 'male involvement in maternal health' by natural language processing and descriptive analysis. *BMJ Glob. Health* 6 (4), e004909. <https://doi.org/10.1136/bmjgh-2020-004909>.
- Ganle, J., Dery, I., 2015. What men don't know can hurt women's health': a qualitative study of the barriers to and opportunities for men's involvement in maternal healthcare in Ghana. *Reprod. Health* 12 (1), 93. <https://doi.org/10.1186/s12978-015-0083-y>.

- Gibore, N., Bali, T., 2020. Community perspectives: an exploration of potential barriers to men's involvement in maternity care in a central Tanzanian community. *PLoS ONE* 15 (5), e0232939. <https://doi.org/10.1371/journal.pone.0232939>.
- Gibore, N.S., Ezekiel, M.J., Meremo, A., Munyogwa, M.J., Kibusi, S.M., 2019. Determinants of men's involvement in maternity care in Dodoma Region, Central Tanzania. *J. Pregnancy* 2019, 7637124. <https://doi.org/10.1155/2019/7637124>.
- Guspiano, L.I., Asyary, A., 2022. Associated factors of male participation in antenatal care in Muaro Jambi District, Indonesia. *J. Pregnancy*, 2022:6842278. <https://doi.org/10.1155/2022/6842278>.
- Gyan, E., Dugle, G., Abiuro, G., 2022. Promoting male participation in maternal healthcare in the Jaman North District in Ghana: strategies and implementation challenges. *Int. J. Health Plann. Manage.* 37 (3), 1754–1768. <https://doi.org/10.1002/hpm.3441>.
- Hajian, S., Mehran, N., Simbar, M., Alavi Majd, H., 2022. The barriers and facilitators of Iranian men's involvement in perinatal care: a qualitative study. *Reprod. Health* 19 (1), 48. <https://doi.org/10.1186/s12978-022-01350-9>.
- Isokon, B.E., Archibong, E.P., Tiku, O.T., Egbe, E., Edet, A.F., 2022. Negative attitudes of youth towards African traditional values and socioeconomic implications for Nigeria. *Glob. J. Soc. Sci.* 21, 35–44. <https://doi.org/10.4314/gjss.v21i1.5>.
- Jungari, S., Paswan, B., 2020. Supported motherhood? An examination of the cultural context of male participation in maternal health care among tribal communities in India. *J. Biosoc. Sci.* 52 (3), 452–471. <https://doi.org/10.1017/S0021932019000580>.
- Khulu, Z., Sengane, M., Mudau, T., 2022. Midwives' perspectives regarding involvement of male partners during pregnancy at a maternal health facility in Eswatini. *Afr. J. Nurs. Midwifery.* 24 (2) <https://doi.org/10.25159/2520-5293/12096>.
- Ladur, A., van Teijlingen, E., Hundley, V., 2021. Male involvement in promotion of safe motherhood in low- and middle-income countries: a scoping review. *Midwifery* 103, 103089. <https://doi.org/10.1016/j.midw.2021.103089>.
- Lowe, M., 2017. Social and cultural barriers to husbands' involvement in maternal health in rural, Gambia. *Pan. Afr. Med. J.* 27, 255. <https://doi.org/10.11604/pamj.2017.27.255.11378>.
- Lusambili, A.M., Muriuki, P., Wisofski, S., Shumba, C.S., Mantel, M., Obure, J., et al., 2021. Male involvement in reproductive and maternal and new child health: an evaluative qualitative study on facilitators and barriers from rural Kenya. *Front. Public Health* 9. <https://doi.org/10.3389/fpubh.2021.644293>.
- Machira, K., Palamuleni, M., 2018. Women's perspectives on quality of maternal health care services in Malawi. *Int. J. Women's Health* 10, 25–34. <https://doi.org/10.2147/IJWH.S144426>.
- Maluka, S., Japhet, P., Fitzgerald, S., Begum, K., Alexander, M., Kamuzora, P., 2020. Leaving no one behind: using action research to promote male involvement in maternal and child health in Iringa region, Tanzania. *BMJ Open* 10 (11), e038823. <https://doi.org/10.1136/bmjopen-2020-038823>.
- Maluka, S., Peneza, A., 2018. Perceptions on male involvement in pregnancy and childbirth in Masasi District, Tanzania: a qualitative study. *Reprod. Health* 15 (1), 68. <https://doi.org/10.1186/s12978-018-0512-9>.
- Manda-Taylor, L., Mwale, D., Phiri, T., Walsh, A., Matthews, A., Brugha, R., et al., 2017. Changing times? Gender roles and relationships in maternal, newborn and child health in Malawi. *BMC Pregnancy ChildBirth* 17 (1), 321. <https://doi.org/10.1186/s12884-017-1523-1>.
- Mapunda, B., August, F., Mwakawanga, D., Mhando, I., Mgaya, A., 2022. Prevalence and barriers to male involvement in antenatal care in Dar es Salaam, Tanzania: a facility-based mixed-methods study. *PLoS ONE* 17 (8), e0273316. <https://doi.org/10.1371/journal.pone.0273316>.
- Masaba, B., Mmusi-Phetoe, R., 2020. Barriers to and opportunities for male partner involvement in antenatal care in efforts to eliminate mother-to-child transmission of human immunodeficiency virus in Kenya: systematic review. *Open. Nurs. J.* 14, 232–239. <https://doi.org/10.2174/1874434602014010232>.
- Mbadugha, C.J., Anetekhai, C.J., Obiekwu, A.L., Okonkwo, I., Ingwu, J.A., 2019. Adult male involvement in maternity care in Enugu State, Nigeria: a cross-sectional study. *Eur. J. Midwifery.* 3, 16. <https://doi.org/10.18332/ejm/112258>.
- Mekonen, M., Shifera, N., Bogale, B., Assefa, A., 2022. Extent of male involvement and associated factors in antenatal care service utilization in Bench Sheko zone, Southwest Ethiopia: a community-based cross-sectional study. *Front. Glob. Womens Health* 3. <https://doi.org/10.3389/fgwh.2022.938027>.
- Mersha, A., 2018. Male involvement in the maternal health care system: implication towards decreasing the high burden of maternal mortality. *BMC Pregnancy ChildBirth* 18 (1), 493. <https://doi.org/10.1186/s12884-018-2139-9>.
- Mkandawire, E., Hendriks, S., 2018. A qualitative analysis of men's involvement in maternal and child health as a policy intervention in rural Central Malawi. *BMC Pregnancy ChildBirth* 18 (1), 37. <https://doi.org/10.1186/s12884-018-1669-5>.
- Morgan, A., Awafo, B., Quartey, T., Cobbold, J., 2022. Husbands' involvement in antenatal-related care in the Bosomtwe District of Ghana: inquiry into the facilitators and barriers. *Reprod. Health* 19 (1), 216. <https://doi.org/10.1186/s12978-022-01506-7>.
- Muloongo, H., Sitali, D., Zulu, J.M., Hazemba, A.N., Mweemba, O., 2019. Men's perspectives on male participation in antenatal care with their pregnant wives: a case of a military hospital in Lusaka, Zambia. *BMC Health Serv. Res.* 19 (1), 463. <https://doi.org/10.1186/s12913-019-4294-8>.
- Nesane, K., Maputle, S., Shilubane, H., 2016. Male partners' views of involvement in maternal healthcare services at Makhado Municipality clinics, Limpopo Province, South Africa. *Afr. J. Prim. Health Care Fam. Med.* 8 (2), a929. <https://doi.org/10.4102/phcfm.v8i2.929>.
- Nkwonta, C., Messias, D., 2019. Male participation in reproductive health interventions in Sub-Saharan Africa: a scoping review. *Int. Perspect. Sex. Reprod. Health* 45, 71–85. <https://doi.org/10.1363/45e8119>.
- Nyang'au, R., Wanzala, M., Were, T., 2021. Male partner involvement in promoting antenatal care and skilled delivery attendance in Bumula Sub-County, Kenya. *Eur. J. Med. Health Sci.* 3 (5), 43–51. <https://doi.org/10.24018/ejmed.2021.3.5.978>.
- Obi, A., Onoriose, B., Adam, V., Tobin, E., Osaze, K., Esei, E., 2019. Level of male involvement in selected maternal health interventions involving nursing mothers in Benin City, Edo State, Nigeria. *Ann. Afr. Med. Res.* 2 (2), 72–76. <https://doi.org/10.4081/aamr.2019.93>.
- Ody, C.P., Kadiata, B.A., Nene, K.N., Omanyondo, O.M., Nanto, M.B., Ngiele, M.C., et al., 2023. Determinants of the low involvement of husbands in the prenatal consultation in the city of Kinshasa, Democratic Republic of the Congo. *Open Access Libr. J.* 10, e10278. <https://doi.org/10.4236/oalib.1110278>.
- Okafor, I., Chukwu, C., Igwilo, U., Ogunnwo, B., 2022. Men are the head of the family, the dominant head": a mixed method study of male involvement in maternal and child health in a patriarchal setting, Western Nigeria. *PLoS ONE* 17 (10), e0276059. <https://doi.org/10.1371/journal.pone.0276059>.
- Okwako, J., Mbuthia, G., Magutah, K., 2023. Barriers to male partner accompaniment and participation in maternal and child health care in Thika and Kiambu Level Five Hospital, Kenya. *Pan. Afr. Med. J.* 44, 189. <https://doi.org/10.11604/pamj.2023.44.189.38293>.
- Ongolly, F., Bukachi, S., 2019. Barriers to men's involvement in antenatal and postnatal care in Butula, western Kenya. *Afr. J. Prim. Health Care Fam. Med.* 11 (1), a1911. <https://doi.org/10.4102/phcfm.v11i1.1911>.
- Paul, P., Pandey, S., 2023. An examination of the factors associated with male partner attendance in antenatal care in India. *BMC Pregnancy ChildBirth* 23 (1), 532. <https://doi.org/10.1186/s12884-023-05851-8>.
- Peneza, A., Maluka, S., 2018. Unless you come with your partner you will be sent back home': strategies used to promote male involvement in antenatal care in Southern Tanzania. *Glob. Health Action.* 11 (1), 1449724. <https://doi.org/10.1080/16549716.2018.1449724>.
- Roudsari, R., Sharifi, F., Goudarzi, F., 2023. Barriers to the participation of men in reproductive health care: a systematic review and meta-synthesis. *BMC Public Health* 23 (1), 818. <https://doi.org/10.1186/s12889-023-15692-x>.
- Sakala, D., Kumwenda, M.K., Conserve, D.F., Ebenso, B., Choko, A.T., 2021. Socio-cultural and economic barriers, and facilitators influencing men's involvement in antenatal care including HIV testing: a qualitative study from urban Blantyre, Malawi. *BMC Public Health* 21 (1), 60. <https://doi.org/10.1186/s12889-020-10112-w>.
- Samuel, O., Zewotir, T., North, D., 2021. Decomposing the urban-rural inequalities in the utilisation of maternal health care services: evidence from 27 selected countries in Sub-Saharan Africa. *Reprod. Health* 18, 216. [doi.org/10.1186/s12978-021-0126-8-8](https://doi.org/10.1186/s12978-021-0126-8-8).
- Sharma, S., Kc, B., Khatri, A., 2018. Factors influencing male participation in reproductive health: a qualitative study. *J. Multidiscip. Healthc.* 11, 601–608. <https://doi.org/10.2147/JMDH.S176267>.
- Srivastava, A., Avan, B., Rajbangshi, P., Bhattacharyya, S., 2015. Determinants of women's satisfaction with maternal health care: a review of literature from developing countries. *BMC Pregnancy ChildBirth* 15 (1), 97. <https://doi.org/10.1186/s12884-015-0525-0>.
- Statista. LGBTQ in Africa - statistics & facts, 2021. Available from: <https://www.statista.com/topics/8602/lgbtq-in-africa/#topicOverview> (Accessed: 15 March 2024).
- Teklesilasie, W., Deressa, W., 2020. Barriers to husbands' involvement in maternal health care in Sidama zone, Southern Ethiopia: a qualitative study. *BMC Pregnancy ChildBirth* 20 (1), 21. <https://doi.org/10.1186/s12884-019-2697-5>.
- Tokhi, M., Comrie-Thomson, L., Davis, J., Portela, A., Chersich, M., Luchters, S., et al., 2018. Involving men to improve maternal and newborn health: a systematic review of the effectiveness of interventions. *PLoS ONE* 13 (1), e0191620. <https://doi.org/10.1371/journal.pone.0191620>.
- Tricco, A.C., Lillie, E., Zarin, W., O'Brien, K.K., Colquhoun, H., Levac, D., et al., 2018. PRISMA extension for scoping reviews (PRISMA-ScR): checklist and explanation. *Ann. Intern. Med.* 169 (7), 467–473. <https://doi.org/10.7326/m18-0850>.
- Tsawe, M., Susuman, A., 2014. Determinants of access to and use of maternal health care services in the Eastern Cape, South Africa: a quantitative and qualitative investigation. *BMC. Res. Notes.* 7 (1), 723. <https://doi.org/10.1186/1756-0500-7-723>.
- Unawari, P., Faanye, M., Amalca, C., Ayamba, E., Alhassan, B., Tachie, L.A., et al., 2023. Male involvement in the maternal health care: expectations of pregnant women in Bolgatanga municipality in the Upper East Region of Ghana. *Open. J. Nurs.* 13, 1–21. <https://doi.org/10.4236/ojn.2023.131001>.
- WHO, UNICEF, UNFPA, World Bank Group, and UNDESA/Population Division. Trends in maternal mortality 2000 to 2020: estimates from WHO, UNICEF, UNFPA, World Bank Group, and UNDESA/Population Division, 2023. Available from: <https://www.who.int/publications/i/item/9789240068759> (Accessed: 25 October 2023).
- WHO. WHO recommendations on health promotion interventions for maternal and newborn health 2015, 2015. Available from: <https://www.who.int/publications/i/item/9789241508742> (Accessed: 20 October 2023).
- WHO. Maternal health, n.d. Available at: [https://www.who.int/health-topics/maternal-health#tab=tab\\_1](https://www.who.int/health-topics/maternal-health#tab=tab_1) (Accessed: 28 October 2023).
- Yadav, A.K., Sahni, B., Kumar, D., Bala, K., Kalotra, A., 2021. Effect of women's and partners' education on maternal health-care services utilization in five empowered action group States of India: an analysis of 13,443 women of reproductive age. *Int. J. Appl. Basic Res.* 11, 231–237. [https://doi.org/10.4103/ijabmr.ijabmr\\_121\\_21](https://doi.org/10.4103/ijabmr.ijabmr_121_21).
- Yargawa, J., Leonardi-Bee, J., 2015. Male involvement and maternal health outcomes: systematic review and meta-analysis. *J. Epidemiol. Community Health* 69 (6), 604–612. <https://doi.org/10.1136/jech-2014-204784>.