

■ Original Research Article

Male Involvement in Maternal Health Care in Karonga District, Malawi

Margret Soko^{1,2,3}, Timothy A.O. Oluwasola^{1,2}, Oladapo O. Olayemi^{1,2}

1Department of Obstetrics and Gynaecology, College of Medicine, University of Ibadan, Ibadan, Nigeria

2Pan African University of Life and Earth Sciences Institute (PAULESI), University of Ibadan, Nigeria

3Margret Soko University of Livingstonia, Laws campus, Malawi

Abstract

Background: Male involvement in maternal health has been of interest since the Cairo International Conference on Population and Development (ICPD) programme of action in 1994 outlined the role of men in reproductive health. This study aimed to evaluate the level of male involvement in maternal health in Malawi. **Methods:** A cross sectional study, involving 408 men, was conducted in Karonga district of Malawi. Men whose spouses delivered a child within a period of 2 years preceding the study were selected using random sampling procedures. The study design adopted an explanatory mixed-method approach making use of questionnaires and focus group discussions for data collection. The quantitative data was analyzed using Statistical Package for Social Sciences (SPSS) version 24 while the qualitative data analysis was guided by the thematic content analysis. Ethical approval was duly obtained before commencing the study. **Results:** Most of the participants had secondary education (54%), were businessmen (40.7%), had one or two children (53.7%) while 80% were aged between 21 and 40 years. Of the 408 participants, about three-fifths, 244 (59.8%) had accompanied their wives for antenatal care (ANC) during last pregnancy, 230 (56.4%) were present at delivery while 210 (51.5%) accompanied their wives for postnatal care services. Overall, only 185 (45.5%) of the participants had accompanied their wives for all the three services. Aside accompanying their wives for care, more than two-thirds of the participants, 284 (69.6%) planned ANC with their wives, about three-quarters, 304 (74.5%) helped with household chores and more than half, 223(54.7%) discussed their wives' health issues with health workers. **Conclusion:** There is a high level of male involvement in maternal health care services in Karonga district of Malawi. However, few men are involved in accompanying the wife to all the maternal health care services. There is need to improve male involvement in maternal health thereby warranting a need for clearly stated policies that address male involvement in maternal health care.



Correspondence:

Margret Soko
Pan African University of
Life and Earth Sciences
(PAULESI)
University of Ibadan,
Nigeria
Email:
margretsoko@gmail.com
Phone: +265991396310

Keywords: Antenatal care, Delivery, Male involvement, Maternal health care, Postnatal care

INTRODUCTION

Maternal health care (MHC) includes services offered to pregnant women in order to ensure that they have a fulfilling experience during the pregnancy, delivery and postpartum period. World Health Organization (WHO) recommends that expectant mothers receive at least four antenatal visits and have eight contacts with the health care providers during pregnancy.² Access to appropriate MHC services contributes to achieving the full life-saving potential for women and their babies.³

Male involvement in MHC improves utilization of emergency obstetric services, birth preparedness and complication readiness.⁴ Ensuring antenatal care (ANC) and delivery at a health facility with skilled medical attention and hygienic conditions reduces the risk of complications during pregnancy and delivery.³

In sub-Saharan Africa, MHC is viewed as solely women's issue and it is very rare to find male companion at ANC clinics, in the labour wards during delivery and at the postnatal care (PNC) clinics.⁵ Meanwhile, it has been documented that husbands strongly influence their spouses' access to MHC in most African settings as they make health-related decisions such as when to have children as well as where and when to seek health care.^{6,7} Therefore, their participation in MHC is crucial to improving access and utilization of MHC services⁵ and subsequently maternal and child health outcomes.^{4,8} This study aimed to determine the level of male involvement in Antenatal, delivery and postnatal care in Malawi. In this study, male involvement refers to the activities and choices husbands make that either encourage or deter the spouse's access to, and/or utilization, of MHC services.

MATERIALS AND METHODS

The study was conducted in Karonga district, located in the northern part of Malawi at about 220 km north of Mzuzu city and 50 km south of the Songwe border with Tanzania. The district covers an area of 3,355 km² and has a total population of 365,028 people.⁹ The district is mainly occupied by the Nkhonde and Tumbuka tribe and their major occupation involves fishing, farming, and businesses. Karonga District Hospital is the main

health facility serving the town and the surrounding rural areas.

The study was an explanatory mixed method research design involving 408 married men aged 18 years and above, residing together with their wives and having a child aged between 0-2 years. Men whose spouses were carrying their first pregnancies were excluded from the study as postpartum experiences were required.

A multistage sampling technique was used to select the expected sample starting from the Traditional Authorities in the district from which three were randomly selected. Secondly, all the health facilities in the selected Traditional Authorities were listed and half of them were randomly selected. This was followed by selection of households from a list of households in the catchment area of each health facility.

For the qualitative aspect, purposive sampling was used to select men to be included in the Focus group discussion (FGD). Ethical approval was obtained from the University of Ibadan in Nigeria and National Health Sciences Research Committee (NHSRC) in Malawi before commencement of the study. A written informed consent was obtained from all the participants by clearly explaining the purpose and benefits of the study to them. The participants' privacy and confidentiality were ensured with respect to the information that was provided. For the FGDs, fictitious names were used to maintain the privacy of the participants.

The instrument for quantitative data collection was an interviewer-administered questionnaires consisting of both open and closed ended questions. Pretest was done in adjacent catchment areas not involved in the study. FGDs were conducted to obtain qualitative data although only two FGDs could be conducted due to the COVID-19 pandemic-induced restrictions. The men were grouped into those who accompanied their wives to ANC, delivery and PNC and those who never did.

The quantitative data collected was cleaned and then analyzed using the Statistical Package for the Social Sciences (SPSS) version 24 where frequencies were presented as percentages in tables and figures while thematic content analysis was performed for the qualitative data. The recorded audios were

duly transcribed, and the observational notes taken during the FGDs were also incorporated into the data for analysis. Specific points were identified and coded while contents/codes with comparable meanings were categorized into sub-themes and themes for appropriate discussion.

RESULTS

A total of 408 men fully participated in the quantitative part of the study while two FGDs were also facilitated.

Demographic characteristics of participants

The majorities of the participants were aged between 21 and 40 years (80.1%) and were Christians (96.8%). Only 8% of the participants had tertiary education. Most of the participants were in monogamous marriage (92%); married for between 5 and 10 years (38.5%), with 53.7% of them having a maximum of two children (Table 1).

Male involvement in maternal health care

Out of the 408 participants, 244 (59.8%) of them had accompanied their wives for ANC when the wife was pregnant with the last child, 230 (56.4%) had accompanied their wife for delivery and 210 (51.5%) had accompanied their wives for PNC services. Overall, only 185 (45.3%) of the participants were able to accompany their wives for all the three maternal health care services (ANC, Delivery and PNC) while 140 (34.3%) of the participants did not accompany their wives to any of the three maternal health care services as shown in Table 2.

Table 1: Demographic characteristics of participants

Variable	Frequency	Percentage (%)
Age (years)		
<20	24	5.9
21-30	163	40
31-40	164	40.1

41-50	53	13
51-60	4	1
Education level		
Primary	152	37.3
Secondary	222	54.4
Tertiary	34	8.3
Religion		
Christian	395	96.8
Muslim	13	3.2
Main occupation		
Farmer	102	25
Business	166	40.7
Civil servant	45	11
Artisan	90	22.1
No occupation	5	1.2
Type of Marriage		
Monogamous	377	92
Polygamous	31	8
Number of Children		
1-2	219	53.7
3-4	136	33.3
5-6	46	11.3
More than 6	7	1.7

Number of times the husband had attended ANC with the wife

A total of 244 men had ever attended ANC with their wives with majority attending between 3 to 4 times (41%) followed by those who had 1 or 2 ANC visits 84 (34.4%). Table 3.

Table 2: Overall level of male involvement in maternal health care

Variable	Frequency	Percentage (%)
Accompanied wife for ANC	244	59.8
Accompanied wife for delivery	230	56.4

Accompanied wife for PNC	210	51.5
Accompanied wife to ANC, Delivery and PNC	185	45.3
Accompanied wife for ANC and Delivery	23	5.6
Accompanied wife for ANC and PNC	18	4.4
Accompanied wife for Delivery and PNC	6	1.5
Did not accompany wife for either ANC, delivery or PNC	140	34.3

Table 3: Number of ANC visits

ANC visits	Frequency	Percentage (%)
1-2	84	34.4
3-4	100	41.0
5-6	55	22.5
Cannot remember	5	2.0
Total	244	100.0

Other forms of husbands' involvement during pregnancy and postnatal periods

Despite being involved in accompanying the wife for ANC, delivery or PNC, husbands were also involved in planning ANC with the wife (69.6%), and majority encouraged their wives to attend ANC (96.3%) and PNC (95.8%). Some of the participants also provided financial support for transportation (93.1%) while some were involved in doing the household chores (74.5%) as shown in Table 4.

Table 4: Other responsibilities of husbands during pregnancy and postnatal periods

Variable	Frequency	Percentage
Planning ANC with the wife		
Yes	284	69.6

No	124	30.4
Encourage wife for ANC		
Yes	393	96.3
No	15	3.7
Encourage wife for PNC		
Yes	391	95.8
No	17	4.2
Dropping the wife to the health facility		
Yes	269	65.9
No	139	34.1
Providing transport to the facility		
Yes	380	93.1
No	28	6.9
Help with house chores		
Yes	304	74.5
No	104	25.5
Discuss ANC, PNC with health worker		
Yes	223	54.7
No	185	45.3

Qualitative data Analysis

Most FGDs participants believed that provision of food and doing house chores were among the important activities to be done by the husband in order to improve the health of the wife during pregnancy and postnatal periods.

“Helping the wife with the heavy household chores like cooking nsima and reminding the wife to go for family planning during PNC” (Participant 7, FGD1)

“..... providing healthy food that will replace the food that the baby gets from the mother through breastfeeding.....”(Participant 1, FGD 2)

“Helping the wife to do light household chores only until she fully recovers” (Participant 1, FGD1)

Table 5: Reasons for accompanying wife for MHC

Reason	Frequency	Percentage (%)
To know the health of the wife and baby	48	19.1
Wife was sent back to fetch the husband	40	15.9
To make the wife happy	66	26.3
Wife was not feeling well	26	10.4
Concerned for the wife's safety because of the distance to the health facility	39	15.5
Did not answer	19	7.6
To test for HIV with the wife	13	5.2
Total	251	100.0

When asked about how they motivated their wives for ANC, most of the participants said they did by facilitating transportation to and fro the clinic as well as by reminding the women of the appointment date.

“I always check the dates in the hospital book of my wife when the week begins so that we know if she is supposed to go during that week or not” (Participant 8, FGD 1)

“..... I check the date and when the date approaches; I look for transport money as an encouragement for her to go” (Participant 3, FGD2)

“I make sure I remind her the dates especially when I am busy on that day” (Participant 5, FGD1)

“..... I could give her transport to go to the health facility” (Participant 5, FGD 2)

“I remind her during the night when she has to go the next morning” (Participant 5, FGD 1)

“I remind her on Sundays if the date falls within that particular week” (Participant 4, FGD1)

“If I notice that the visit is scheduled on Monday, I remind her on Friday so that if the clothes are dirty, she has to wash and prepare to go on Monday” (Participant 2, FGD 1)

Reasons for accompanying wife for MHC

Table 5 shows that the frequently mentioned reasons for accompanying the wife for MHC services were to make the wife happy (26.3%), to know the health of the wife and baby (19.1% and that the wife was sent back by the health worker to fetch the husband (15.9%).

From the FGDs among the men that had ever accompanied their wives to ANC, delivery and PNC, similar reasons as presented in the Table 5 were mentioned. However, additional reasons were given such as inconsistency of wife in ANC attendance, trust issues and media influence:

“What made me to go for ANC was that my wife was skipping the ANC dates but she was complaining of stomach pains so I was scared that if I don’t go with her she will keep on missing the ANC visits so I had to accompany her to ANC” (Participant 4, FGD1)

“I wanted to confirm if the pregnancy is really mine by hearing the gestation age because women are very clever” (Participant 1, FGD1)

“I got encouraged through the radio and Television when I heard about the benefits of accompanying the wife for ANC, delivery and PNC” (Participant 2, FGD1)

Reasons for inability to accompany wife for MHC

When asked about reasons for their inability to accompany their wives for MHC, 66 (40.2%) of the participants had challenges with the time for MHC service provision which overlaps with their work while 41(25%) mentioned the availability of a guardian. However, few, 22(13.4%) were not aware of men accompanying their wives for MHC services (Table 6).

In tandem with the findings from the questionnaire, same reasons were reiterated during the FGD:

“.....I would like to accompany my wife but the work I do needs me to go to the lake early in the morning and that’s the same time my wife goes to the health facility so the best I do is to provide transport for her to go to the health facility” (Participant 3, FGD2)

In agreement with participant 3, Participant 5 of FGD2 gave a scenario of what happened when his wife was pregnant saying:

“.....I remember when my wife was pregnant, she told me that the next morning is her ANC visit and the previous evening I had molded bricks and I had to continue working on the bricks the same morning she asked me to go with her and I couldn’t go”

Table 6: Reasons for inability to accompany wife for MHC

Reason	Frequency	Percentage (%)
The time for MHC is the time for work	66	40.2

Not aware of men going with wives for MHC	22	13.4
My mother/mother in-law was around to accompany the wife	41	25.0
A man going for MHC is a waste of time	10	6.1
Rude staff	5	3.0
Do not want to be tested for HIV	5	3.0
Did not answer	15	9.1
Total	164	100.0

Other participants highlighted that it was because they were not aware of men accompanying their wives for MHC services.

“.... the time my wife was pregnant and delivered I didn’t know that I am supposed to go with her but now I will start accompanying her” (Participant 1, FGD 2)

“.... I was not aware that I should be going with my wife to the health facility and when she told me once I said I have never seen a man going to ANC” (Participant 7, FGD 2)

In addition to the reasons mentioned, some participants mentioned the wife’s attitude as the reason why they couldn’t accompany their wife for MHC.

“The way these women tell us that we should accompany them to the hospital is what doesn’t encourage us to go like they say “you contributed to this pregnancy so I shouldn’t be going alone for ANC. Instead of just telling us what the doctor says about men accompanying their wives” (Participant 9, FGD 2)

“Sometimes my wife would say that she won’t go for ANC but for delivery because the hospital is close to the house so if she doesn’t go, what will I be doing there” (Participant 6, FGD 2)

While agreeing with participant 6, participant 9 further said that *“my wife is very stubborn, when I tell her that we should go for ANC, she always shifts the date to the following week so that discouraged me”* in agreement with participant 6

However, in disagreement with participant 9 on women being stubborn, participant 8, FGD2 said,

“Even if the wife is stubborn, the man is the head of the family, he should know how to convince the wife. And mostly its men who are stubborn because women are the ones that are always telling us to go to the health facility with them”

DISCUSSION

This study found out that more than half of men in Karonga district of Malawi accompany their wives to either ANC, labour or PNC and a little below half attended the three aspects of MHC. These findings are in tandem with that of a study conducted in Myanmar where over half of the husbands accompany their wives to ANC and PNC.¹⁰ However, a study in Ghana reported lower rates of male involvement where less than half of the participants were accompanying their wives for maternal health care.¹ In Ethiopia, a poor male involvement in maternal health care was also reported¹¹ as well as in Dodoma, Tanzania where only one in five men were highly involved in accompanying their partners for ANC, delivery and PNC services.¹² The differences in the level of male involvement could be due to the variation in the study population as most of the studies interviewed women instead of men.

This study also reported a higher rate of attendance at ANC than delivery and/or PNC most likely because of the increased awareness in measures for the prevention-of-mother-to-child-transmission (PMTCT) of HIV where the couple were expected to be tested for HIV together. This has been earlier documented by Triulzi et al., (2020) in a study

conducted in the Southern part of Malawi, among HIV positive women, which reported higher level of male attendance in ANC.¹³ However, in Anomabo, Ghana and in Ibadan, Nigeria, more men were involved in accompanying their wives for delivery than ANC and PNC.^{1,14}

Male involvement in PNC was much lower and this could be due to poor awareness as PNC programs have been reported to be the weakest of all the reproductive and child health programs in sub-Saharan Africa despite the fact that postnatal period is the most vulnerable time for both the mother and the baby.¹⁵ However a study conducted in Bangladesh reported that more men attended PNC (63%) followed by those who attended delivery (50%) and lastly those that attended ANC (48%).¹⁶ The differences with other study findings could be due to variations in the study settings and implementation of the maternal health services in the countries as in Malawi, maternal health services are free compared to other countries.

In addition, the study found that two out of every five men accompany their wives to the MHC services which is in contrast with similar studies conducted in Nigeria, Tanzania and Uganda. In a study conducted in Dodoma region of Tanzania, 1 in 5 men were highly involved in maternal health.¹² A study conducted in eastern Uganda showed 26% of the participants highly involved in maternal health.¹⁷ A similar study in a rural community in Tanzania reported 39.2% level of male involvement¹⁸ and the one conducted in Northern Nigeria found 32.1% of the participants involved in maternity care.¹⁹ The variations in the level of male involvement could be due to the variables used in different studies to determine the level of male involvement.

Furthermore, it was noted that husbands often encourage their spouses’ attendance to MHC appointments while also giving physical and economic support to them throughout the periods and this is similar to reports by Vermeulen et al in Tanzania.^{12,14,20,21} Story et al had similar reports for obstetrics emergencies in Ghana.²²

In exploring the reasons for failure to accompany the wives for ANC, delivery and/or PNC, this study found out that some men were

restricted by their nature of work, and this is similar to the findings from similar studies conducted in Kenya and Ghana where the nature of job prevented most of the men from attending MHC services with their spouses.^{23,24} Similarly, some men were also constrained by the attitude of their wives when conveying the information to be accompanied for MHC services as well as lack of awareness about men accompanying their spouses for MHC which is in tandem with a report from Tanzania by Gibore and Bali in 2020.²⁵ Men being aware of their role in MHC has a tendency to increase spousal communication about MHC and also increase awareness among other men.²⁶ This therefore implied that access to information may contribute to enlightened decision making in relation to male involvement in maternal outcome.^{12,26}

Finally, this study also found out that the presence of other guardians like mothers and mothers-in-law prevented some men from accompanying their wives to the health facility. In most African settings, mothers or mothers-in-law often visit couples in order to assist in taking care of the pregnant wife and this tradition has led to most men's inability to get in issues concerning

their wives. Men need to be made aware that the presence of the guardian should be disallowed from becoming a hindrance to their involvement in MHC.

In conclusion, the level of male involvement in MHC in Karonga, Malawi is reasonably higher than most African countries with more men attending ANC with their spouses. Most of those who were unable to physically accompany their spouses are able to provide physical, emotional and financial support to them during pregnancy, delivery and after childbirth. As participants were expected to provide information on past events, the study was limited by recall bias although this was prevented by reducing the length of years to less than 2 years.

Finally, there is need for a clearer definition of male involvement in maternal health care in terms of the roles and constraints of men during pregnancy, delivery and postnatal periods, in order to have measurable and satisfactory levels of male involvement. There is also an urgent need for stakeholders to develop innovative approaches that will contribute to improving male involvement in maternal health.

REFERENCES

1. Craymah JP, Opong RK, Tuoyire DA. Male Involvement in Maternal Health Care at Anomabo, Central Region, Ghana. *Int J Reprod Med.* 2017;1–8.
2. World Health Organization. More women worldwide receive early antenatal care, but great inequalities remain. World Health Organization; 2017. p. 2–7. Last cited 27 May, 2021. Available from: <https://www.who.int/reproductivehealth/early-anc-worldwide/en/>
3. Lincetto O, Mothebesoane-Anoh S, Gomez P, Munjanja S. Antenatal Care III. 2006. The Partnership: for maternal, newborn and child health. p. 51–62. [cited 27 May 2021]. Available from: https://www.who.int/pmnch/media/publications/aonsectionIII_2.pdf
4. Kakaire O, Kaye DK, Osinde MO. Male involvement in birth preparedness and complication readiness for emergency obstetric referrals in rural Uganda. *Reprod Health.* 2011; 1–7
5. World Health Organization. WHO recommendation on interventions to promote the involvement of men during pregnancy, childbirth and after birth. WHO Reproductive Health Library. 2015. Last cited 27 May, 2021. Available at: https://apps.who.int/iris/bitstream/handle/10665/172427/9789241508742_report_eng.pdf
6. Nesane K, Maputle SM, Shilubane H. Male partners' views of involvement in maternal healthcare services at Makhado Municipality clinics, Limpopo Province, South Africa. *African J Prim Heal Care Fam Med.* 2016;8(2):1–5.
7. Nyandieka LN, Njeru MK, Ng'ang'a Z, Echoka E, Kombe Y. Male Involvement in Maternal Health Planning Key to Utilization of Skilled Birth Services in Malindi Subcounty, Kenya. *Adv Public Heal.* 2016;2016:1–8.
8. Suandi D, Williams P, Bhattacharya S. Does involving male partners in antenatal care improve healthcare utilisation? Systematic review and

- meta-analysis of the published literature from low-And middle-income countries. *Int Health*. 2020;12(5):484–98.
9. National Statistical Office. 2018 Census Report Preliminary Report. Malawi Government. 2018. [cited 18 Sept 2029]. Available from: <https://malawi.unfpa.org/sites/default/files/resource-pdf/2018%20Census%20Preliminary%20Report.pdf>
 10. Wai KM, Shibanuma A, Oo NN, Fillman TJ, Saw YM. Are husbands involving in their spouses' utilization of Maternal Care Services?: A Cross-Sectional Study in Yangon , Myanmar. *PLoS One*.2015;1–13.
 11. Mohammed BH, Johnston JM, Vackova D, Hassen SM, Yi H. The role of male partner in utilization of maternal health care services in Ethiopia: A community-based couple study. *BMC Pregnancy Childbirth*. 2019;19(1):1–9.
 12. Gibore NS, Ezekiel MJ, Meremo A, Munyogwa MJ, Kibusi SM. Determinants of men's involvement in maternity care in dodoma region, central Tanzania. *J Pregnancy*. 2019;2019:1–10.
 13. Triulzi I, Keiser O, Somerville C, Salimu S, Ciccacci F, Palla I, et al. Social determinants of male partner attendance in women's prevention-of mother-to-child transmission program in Malawi. *BMC Public Health*. 2020;1–10.
 14. Olayemi O, Bello FA, Aimakhu CO, Obajimi GO, Adekunle AO. Male participation in pregnancy and delivery in Nigeria: A survey of antenatal attendees. *J Biosoc Sci*. 2009;41(4):493–503.
 15. WHO. Opportunities for Africa's Newborns: Practical data, policy and programmatic support for newborn care in Africa. The Partnership: for maternal, newborn and child health. 2006 [cited 2021 May 27]. Available from: http://www.who.int/pmnch/media/publications/oa_nfullreport.pdf
 16. Rahman AE, Perkins J, Islam S, Siddique AB, Moinuddin M, Anwar MR, et al. Knowledge and involvement of husbands in maternal and newborn health in rural Bangladesh. *BMC Pregnancy Childbirth*. 2018; 18(1):1–12.
 17. Byamugisha R, Tumwine JK, Semiyaga N, Tylleskär T. Determinants of male involvement in the prevention of mother-to-child transmission of HIV programme in Eastern Uganda: A cross-sectional survey. *Reprod Health*. 2010;7(1):1–9.
 18. August F, Pembe AB, Mpembeni R, Axemo P, Darj E. Community health workers can improve male involvement in maternal health: Evidence from rural Tanzania. *Glob Health Action*. 2016;9(1):1–10.
 19. Iliyasu Z, Abubakar IS, Galadanci HS, Aliyu MH. Birth preparedness, complication readiness and fathers' participation in maternity care in a northern Nigerian community. *Afr J Reprod Health*. 2010;14(1):21–32.
 20. Onchong'a JM, Were T, Osero JOS. Knowledge, perception and level of male partner involvement in choice of delivery site among couples at Coast Level Five Hospital, Mombasa County, Kenya. *Afr J Reprod Health*. 2016;20(1):71–9.
 21. Vermeulen E, Solnes Miltenburg A, Barras J, Maselle N, van Elteren M, van Roosmalen J. Opportunities for male involvement during pregnancy in Magu district, rural Tanzania. *BMC Pregnancy Childbirth*. 2016 Mar 29;16(1):1–9.
 22. Story WT, Barrington C, Fordham C, Sodzi-Tettey S, Barker PM, Singh K. Male involvement and accommodation during obstetric emerge: 262 rural Ghana: A qualitative analysis. *Int Perspect Sex Reprod Health*. 2016;42(4):211–9.
 23. Ongolly FK, Bukachi SA. Barriers to men's involvement in antenatal and postnatal care in Butula, western Kenya. *African J Prim Heal Care Fam Med*. 2019;11(1):1–7.
 24. Saah FI, Tarkang EE, Komesuor J, Osei E, Acquah E, Amu H. Involvement of Male Partners in Skilled Birth Care in the North Dayi District, Ghana. *Int J Reprod Med*. 2019;2019(2852861):1–12.
 25. Gibore NS, Bali TAL. Community perspectives: An exploration of potential barriers to men's involvement in maternity care in a central Tanzanian community. Wilunda C, editor. *PLoS One*. 2020;15(5):e0232939.
 26. Caleb-Varkey L, Mishra A, Ottolenghi E, Huntington D, Leila C-V, Das A, et al. Involving men in maternity care in India Anjana Das Recommended Citation. *Reproductive Health Social and Behavioral Science Research*. 2004 Jan [cited 2021 May 28]. Available from: https://knowledgecommons.popcouncil.org/departments_sbsr-rh/42