Perceptions of Men on Male Partners Involvement in Maternal and Child Health: An Analysis of Kuria East Sub-County, Migori County, Kenya

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Abstract

Background: Male partner involvement is critical to maternal and child health outcomes. In Kenya, male partners are entitled to a two-week paternal leave with full pay to encourage male partner support in antenatal and postpartum care services, breastfeeding, complementary feeding, and health education. However, the involvement of males in maternal and child health remains inadequate. This could be attributed to several factors. Consequently, this study investigated perceptions of men on male partner involvement in maternal and child health in Kuria East Sub-County, Migori County, Kenya

Methods: This study used a mixed-method and descriptive cross-sectional survey research design. Questionnaires, Focus Group Discussions, and Key Informant Interviews were used to collect data. Two hundred and ninety-six respondents completed the questionnaire, six key informants took part in interviews, and fourteen participated in focus group discussions to investigate the perceptions of men on their involvement in maternal and child health.

Results: Men's perceptions of male partners' involvement in maternal and child health vary. At the community level, there is a negative perception of male partners' involvement in maternal and child health. The community perceives maternal and childcare as a female's role. On the other hand, individual males generally have a positive view of male partners' involvement in maternal and child health. However, the study reveals that the age does not determine the perceptions of males on male partner involvement both at community and individual level whereas educational attainment and occupation have significant associations with the perceptions of males on male partner involvement in MCH.

Conclusion: The study concludes that men's perception of male partners' involvement in maternal and child health varies. At the community level, there is a negative perception of male partners' involvement in maternal and child health. On the other hand, individual males generally have a positive view of male partners' involvement in maternal and child health.

Keywords: Male Partner Involvement; Male partner; Maternal and Child Health; involvement; perceptions

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Introduction

Maternal and child health (MCH) care is an essential public health and development concept that determines the health of future generations by ensuring the well-being of mothers, children, and their families (Ogbuabor & Onwujekwe, 2018). It is one of the critical indicators for measuring economic growth and development by predicting the public health outcomes of communities and entire nations through the various components of MCH. Male partner involvement (MPI) in MCH is the act of male partner participation in MCH to ensure the well-being of their spouses and children (Forbes et al. 2021). This concept dates back to 2003 in Oxford, England, during the International Fatherhood Summit, where it was mooted to enhance the inclusion of male partners' MCH. It revolves around the idea that male partners should be active participants in MCH during pregnancy, childbirth, and the postnatal period. In addition, their children receive financial and moral support, decision-making, and accompanying them to clinics. According to Matseke et al. (2017), MPI is determined by different predictors at individual, family, and community levels. Muheirwe and Nuhu (2019) and Kululanga et al. (2011) assert that male partners' perceptions and attitudes affect MPI in MCH.

The benefits of MPI for MCH have been reported worldwide. Greater MPI in MCH in the Pacific region has resulted in greater access to services and interventions for women and children (Davis et al., 2016). In Nepal, Sharma et al. (2018) found that MPI is good for MCH and improves the man's health since men who involve themselves in MCH have better engagement with service providers and, therefore, an opportunity to acquire more health education. In Kenya, MPI in MCH provides an opportunity to educate men on MCH while fostering favourable attitudes towards access to services, such as enhanced access to skilled deliveries, antenatal care, and the use of antiretroviral drugs (ARVs) to prevent mother-to-child transmission (PMTCT) (Dunlap et al., 2014; Ediau et al., 2013; Mohlala et al., 2012; Wettstein et al., 2012).

In recognition of the benefits of MPI in MCH, policy, legal, and programmatic interventions have been put in place in Kenya and elsewhere to encourage male partners to support their spouses and children. At the international level, the 1979 International Convention on the Elimination of All Forms of Discrimination Against Women (CEDAW) and the 1994 Programme of Action from the International Conference on Population and Development have emphasized the need for a full partnership between men and women in reproductive life and in raising children.

In Kenya, male partners are entitled to two-week paternal leave with full pay. This strategy encourages MPI in antenatal and postpartum care services, complementary feeding, and health education (Petts et al. 2020). Furthermore, the Ministry of Health encourages male partner support in antenatal and postpartum care services, breastfeeding, complementary

feeding, and health education. This is especially true for HIV/AIDS-positive expectant mothers (Kamau et al., 2017; Pintye et al., 2020). Additionally, the Ministry of Health has been involved in the integration of fatherhood initiatives in MCH programs by supporting low-income fathers through employment training for fathers in family planning services and expanding birth data collection to include fathers' information in the healthcare services of spouses and children.

Disturbingly, despite these interventions, developing countries have persistently reported poor or inadequate MPI in MCH. For example, Masaba and Mmusi-Phetoe (2020) reported very low rates of MPI in MCH in South Africa, probably due to adverse, low, and unsupportive perceptions of the practice. In Kenya, Odeny et al. (2019) found that only 30% of male partners accompanied their spouses for ANC due to negative perceptions. Nanjala and Wamalwa, (2012) found that the rate of health facility delivery was very low because of the failure of men to support their spouses in accessing health services during pregnancy. Inadequate MPI in MCH has been partly associated with poor outcomes in all the components of MCH (Mwije & Holvoet, 2021). Given the aforementioned, it is important to investigate the perceptions of men regarding MPI in MCH.

Methodology

This study was conducted in Kuria East Sub-County, Migori County, Kenya. A mixed-method approach and descriptive cross-sectional survey research design were used (Bhattacherjee, 2012) to investigate men's perceptions of male partner involvement in maternal and child health.

There are 24,257 men in Kuria East Migori County, Kenya, comprising the target population (Kenya National Bureau of Statistics, 2019). A sample size of 378 respondents was estimated to be sufficient for this study, based on Krejcie and Morgan's (1970) precalculated formula. A multi-stage sampling procedure was used, and proportionate samples were allocated to each of the eight selected sub-locations, where data collection sites were identified with the aid of community leaders.

Questionnaires, focus group discussions, and key informant interviews were used to collect data. Two hundred and ninety-six respondents completed the questionnaire, of the 378 distributed. Six key informants were purposively selected for the interviews, including three community leaders and three healthcare providers. In addition, 14 participants participated in three focus group discussions to gather views and opinions on male involvement in maternal and child health.

The research instruments were validated by expert opinion. Internal and construct validity were also ensured. Reliability was enhanced by computing Cronbach's alpha correlation coefficient, and a threshold of >.87 was achieved, making the tools sufficient for use in the study. Quantitative data were analysed descriptively using frequency counts, percentages, means, standard deviations, and Pearson's chi-squared tests of independence. Qualitative data were analysed thematically and are

presented in the narratives. The study ensured confidentiality, anonymity, and also the participants were assured of their voluntary entry and exit

Results and Discussions

The study established the demographic features of the respondents, with the aim of establishing the representativeness of the sample for the generalization of the study findings. Demographic information included age, educational attainment, and occupation. The demographic characteristics are presented in Table 1, and the findings in Tables 2, 3, and 4, respectively.

Respondents' Demographic Characteristics

Table 1

Respondents' Demographic Characteristics

Table 1 reveals that approximately two-thirds (65%) of the respondents were aged between 18 and 34. This indicates that

Respondents' Demographic Features		Frequency	Percentage	Cumulative Percentage
Age Distribution	18-24	39	13.1	13.1
	25-29	94	31.7	44.8
	30-34	60	20.2	65.0
	35-39	47	15.9	80.9
	40-44	20	6.7	87.6
	45-49	10	3.4	91.0
	50-54	17	5.7	96.7
	55-59	9	3.0	99.7
	TOTAL	**296**	**100**	**100**
Level of Educational Attainment	No schooling	40	13.5	13.5
	Primary School	121	40.9	54.4
	High School	76	25.7	80.1
	Tertiary college	50	16.9	97.0
	University Degree and Above	9	3.0	100.0
	TOTAL	**296**	**100.0**	**100.0**
Occupation	Peasant Farming	187	63.7	63.7
	Petty Business	62	20.9	84.6
	Small Scale Mining	14	4.7	89.3
	Formal employment	6	2.1	91.4
	TOTAL	**296**	**100**	**100**

Source: Research Data (2022)

men in the study area marry at an early age, considering that studies in other parts of Kenya have found that more than half of all married men are aged 35 years and above (MacQuarrie et al., 2015). This could potentially have significant implications for MPI because various studies have shown that younger men are more receptive to MPI in MCH than their older counterparts. In the study area, there is a belief that pregnancy and the primary roles of childbearing and care are culturally a domain for women. Therefore, it is likely that the male partners will not support their female counterparts.

It is regarded as taboo for those who support and follow their spouses to both antenatal and postnatal clinics.

However, since the findings show that the majority of young male partners are young, it is likely that they will support MCH due to the dynamics of cultural change. Society is changing and advancing as a result of westernization and globalization, which has shed off most traditional African customs. This has made the younger generation avoid the conservative culture of their fathers and forefathers to adopt the liberal nature of thinking towards gender role specifications.

The early age of marriage among men could also be related to the fact that a vast majority (80.1%) of the respondents had not gone beyond high school, as shown in Table 1. According to Ozier (2018), the average age for high school completion in Kenya is 18-20 years. Furthermore, Omoeva and Hatch (2022) found that most young men and women in the Nyanza region of Kenya, where the study area is located, enter into marriage soon after the completion of basic schooling, implying that those who stop schooling at an earlier age tend to marry at an earlier age.

Similarly, Omoeva and Hatch (2022) found an association between the age at which youths stop schooling and the age of marriage. The fact that there is evidence of early marriage could be associated with the cultural practices of Female Genital Mutilation (FGM), which takes place at an adolescent age. After the mutilation, the adolescent girls and boys are put together in the forests which house the circumcised individuals. During this period that both boys and girls are expected to mingle and experience sexual intercourse. This makes the majority of young girls get out while already pregnant and forced to be married off since the community does not encourage children out of wedlock. Further, girls are considered sources of wealth in this community; thus, when they approach puberty stage, they are expected to get married for the parents to get the necessary resources required to educate their male counterparts. This further justifies the study finding of early marriages in the community.

The study also obtained information on the respondents' occupations to state that male partners who engage in economic activities are likely to facilitate the accessibility of the spouses and children to healthcare facilities for MCH. Table 2 shows that approximately two-thirds (63.7%) of the respondents listed peasant farming as their primary economic activity. All the respondents were involved in various aspects of income-generating activities. This implies that they could provide some degree of financial support to their partners to enable them to access the MCH services.

Community Perceptions of MPI in MCH Care

As can be seen in Table 2, it is apparent that male partners involved in MCH are subjected to some form of stigma. This is evidenced by the fact that more than two-fifths of the respondents (43.3%)

generally agreed that male partners involved in MCH are stigmatized by members of the community.

Table 2

Community Perceptions of Men on MPI in MCH

Statement	SD	D	U	A	SA	Mean	SD
Male partners who involve themselves in MCH are stigmatized	19 (6.4%)	56 (18.9%)	93 (31.4%)	115 (38.9%)	13 (4.4%)	2.78	1.262
Male partners who involve themselves in MCH have difficulty in bonding	19 (6.4%)	45 (15.2%)	108 (36.5%)	88 (29.7%)	36 (12.2%)	2.76	1.214
Male partners who involve themselves in MCH are positively complimented	76 (25.7%)	126 (42.6%)	30 (10.1%)	41 (13.8%)	23 (7.8%)	3.28	1.209
Male partners who involve themselves in MCH services are regarded as weak and feminine	21 (7.1%)	77 (26.0%)	107 (36.1%)	78 (26.4%)	13 (4.4%)	2.47	1.251
Male partners who involve themselves in MCH are community outcasts	25 (8.4%)	60 (20.3%)	109 (36.8%)	88 (29.7%)	14 (4.7%)	2.62	1.235
In my community male partners' involvement in MCH care services is acceptable	18 (6.1%)	56 (18.9%)	152 (51.4%)	39 (13.2%)	31 (10.5%)	3.64	1.114

Source: Research Data (2022)

Table 2 also shows that close to one-third of the respondents (31.4%) remained non-committal, neither agreeing nor disagreeing that male partners involved in MCH are stigmatized by the community. Evidently, there is a stigma targeting male partners for involvement in MCH. This could be associated with the cultural customs, values, and traditions that dictate gender roles. Kuria East Sub-County, where the study was conducted, is still conservative of its cultural orientations, which negates MPI in MCH. Traditionally, it is believed that the primary roles of pregnancy and childcare are a domain for women; therefore, men are not expected to participate in feminine roles. As a result, men shy away from supporting their spouses since they will be ridiculed by the community.

Table 2 further supports the possibility of stigma in relation to responses to the statement "Male partners who involve themselves in MCH have difficulty in bonding." Approximately two-thirds (41.9 %) of the respondents either agreed or strongly agreed with the statement. Furthermore, slightly more than two-thirds (36.5%) of the respondents neither agreed nor disagreed with the statement. This could be the cultural customs that informs the community. By extension, any man seen publicly supporting their

spouse in MCH has difficulty bonding with other men in the community. Such men are often regarded as feminine, disregarded, or discriminated against.

Furthermore, only one-fifth of the respondents (21.6%) agreed or strongly agreed that male partners involved in MCH were positively complimented. More than two-thirds (68.3%) of the respondents either disagreed or strongly disagreed with this statement, further reinforcing the possibility of stigma. Again, Table 2 reveals that only 23.7% generally agreed that male partner involvement in maternal and child healthcare services is acceptable.

It is interesting to note that approximately half (51.4%) of the respondents were non-committal in their responses, as they neither agreed nor disagreed with the sentiment. A similarly sizeable proportion of the respondents (36.1%) neither agreed nor disagreed that men who involve themselves in MCH are regarded as weak and feminine. Furthermore, regarding perceived weakness and femininity, the proportion of respondents who agreed or strongly agreed with the statement was almost equal to that of respondents who generally disagreed (30.8% and 33.1 %, respectively).

In addition, on the statement "male partners who involve themselves in MCH are community outcasts", approximately one-third (34.4%) agreed or strongly agreed, and an almost similar proportion (36.8%) were non-committal. In contrast, slightly less than one-third (28.7%) of the participants disagreed or strongly disagreed with the statement. The findings in Table 2 indicate a strongly patriarchal community in which childcare, alongside childbirth, is regarded as a woman's role.

This was confirmed by qualitative data obtained from the FGDs and KIIs. For instance, one of the FGD discussants remarked,

> *"Duties of pregnancy and children-related issues are believed to be in women's docket, and so men are not supposed to overtake their wives in their work, but are only required to facilitate the women and leave them with their duties." (FGD participant 02, Kegonga)*

The results concur with Falnes et al. (2011), who reported that traditional values have very clearly distinct roles for men and women in Africa, with men assuming the role of providing financial and material support, while women engage in actual childcare. Likewise, (2009) found that African cultural norms view maternal and child health as predominant for women due to male domination in society. This belief causes many male partners to decline their participation in the health services of their spouses and children. Male partners who involve themselves are considered community outcasts, and by extension, poor health outcomes for women and children.

Several related studies in Africa have corroborated our findings. For example, a study conducted in South Africa (Davis et al., 2013), revealed that males are not actively involved in MCH issues due to the perception that MCH is a woman's

role. Men who are involved in themselves are considered weak and feminine in society. In Ghana, Ganle and Dery (2015) reported that male partners were discouraged from participating in MCH services for their spouses and children due to the perception that pregnancy and childbirth are female roles. In addition, negative health practitioner attitudes towards men and antenatal care staff who are unfriendly to males accompanying their spouses are other reasons for the lack of MPI in MCH (Ganle and Dery, 2015).

Nkuoh et al. (2010) noted that in rural communities in Cameroun, male partners who follow their wives to antenatal and postnatal clinics are perceived as jealous husbands who police their women. In Ethiopia, Bekele and Fekadu (2020) noted low attitudes and negative perceptions of women's empowerment on matters concerning MCH services in patriarchal societies. Most men do not see any benefits in involving themselves in the healthcare services provided to their spouses and children. Similar results were reported in Tanzania, where Mbekenga and Pembe (2011) found high levels of discrimination and stigmatization of male partners who helped their spouses in antenatal and postnatal care services.

From the aforementioned, it can be realized that male partners hold on to the common African perceptions of conceptualized gender roles and specialization, which determine the roles and boundaries that both males and females are expected to play. Furthermore, male partners from the community hold on to the fact that pregnancy and childbearing are the domains of women. This makes male partners decline their participation because whoever is seen escorting their spouses to either antenatal or postnatal clinics is stigmatized by the community. It is evident that men have egos and pride that they do not want to trade with. Thus, they seem to respect their dignity by respecting the boundaries set by traditionally predetermined gender role specifications. Traditionally, African men are supposed to engage in productive roles only, whereas women are expected to perform reproductive roles only. The boundaries are clearly drawn and everyone is expected to adhere to the set boundaries.

Individual Perceptions of Men on MPI in MCH

The study revealed that individual perceptions prompt male partners to involve themselves in the healthcare services of their spouses and children, whereas others discourage their participation, as shown in Table 3.

Table 3

Individual Perceptions of Men on MPI in MCH

Statement	SD	D	U	A	SA	Mean	SD
MPI in MCH is a good practice	15 (5.1%)	42 (14.2%)	13 (4.4%)	166 (56.1%)	60 (20.3%)	3.72	1.094
MPI in MCH is not beneficial	66 (22.3%)	125 (42.2%)	35 (11.8%)	54 (18.2%)	16 (5.4%)	2.42	1.176
MCH services are exclusively a feminine activity	55 (18.6%)	133 (44.9%)	21 (7.1%)	50 (16.9%)	37 (12.5%)	3.18	1.336

Source: Research Data (2022)

Table 3 reveals what appears to be a somewhat perplexing phenomenon. In sharp contrast to the data in Table 2, the findings in Table 3 show very positive perceptions toward MPI in MCH. For instance, approximately three-quarters (76.4 %) of the respondents either agreed or strongly agreed that MPI in MCH is a good practice, with only a small proportion (19.3%) disagreeing or strongly disagreeing. Interestingly, only a very small proportion (4.4%) of the respondents were non-committal, neither agreeing nor disagreeing. Furthermore, only approximately one-fifth (23.6%) of the respondents agreed or strongly agreed that MPI in MCH is not beneficial, with a majority of the respondents (64.5%) disagreeing or strongly disagreeing with the statement. Similarly, only a small proportion (11.8%) were non-committal. These findings could be related to the fact that society is changing in terms of complexity. People develop attitudes and perceptions toward changing society.

Technology is moving society towards Westernization; whereby most African communities are developing a change of mind especially in support of MCH. Due to education and enlightenment, individual male partners are transforming from conservative traditional customs and values towards liberalism, making them open-minded to support their spouses in childcare issues. Thus, the majority of men are seeing the practice of supporting to be a good practice since it signifies a sign of love and bonding between the spouses and between fathers and children.

The findings in Table 3, in sharp contrast to those in Table 2, show that in the study area, most men perceived MPI in MCH as favourable, even though the community perception was negative. Despite the study area being a patriarchal community where masculinity is perceived in the exclusion of childcare, most individual men do not regard childcare as exclusively a woman's role. Table 3 presents the results. For instance, approximately two-thirds of the respondents (63.5%) generally disagreed with the statement that "MCH services are exclusively a feminine activity". Only 7.1% of the participants were non-committal.

This could be a result of the training conducted in the study area and the

influence of mainstream social media. According to one FGD participant:

> *"The responsibilities of pregnancy and other related issues are supposed to be handled by both men and women to ensure good health of mothers and children, as well as the general family." (FGD participant 02, Kegonga)*

The findings in Table 3, together with the data in Table 2, contradict previous studies on MPI in Africa. There is a sharp contrast between community and individual perceptions in this study. However, in most previous studies, there is a strong link between community and individual perceptions of MPI in MCH. For instance, in a comparative study of various sub-Saharan African countries, Bogale et al. (2011) revealed that community perceptions influenced individual perceptions of MPI in MCH. In Ghana, Atuahene et al. (2017) found that community perceptions of MPI in MCH were heavily influenced by culture and, in turn, heavily influenced by individual perceptions. Mbekenga et al. (2011) revealed a strong link between culturally determined perceptions of MPI in MCH and individual perceptions in Tanzania. Similar results have been reported for Ghana (Atuahene et al., 2017), Congo (Ditekemena et al., 2012), and Uganda (Davis et al., 2016; Muheirwe & Nuhu, 2019).

Relationship between Demographic Characteristics and Perceptions Men on Male Partners Involvement in Maternal and Child Health

The study further sought to examine the relationship between the demographic characteristics and perceptions of men regarding MPI in MCH. A chi-squared test of independence was computed, and a summary of the results is presented in Table 4. A Chi-square base value of equal or less than 0.5 was considered to have revealed relationships between demographic characteristics and the perceptions of men on MPI in MCH.

Table 4

Relationship between Demographic Factors and Perceptions by Men on MPI in MCH

Demographic Factor	Perceptions of Male Partners' Involvement in MCH	Pearson Chi-Square Value	p-value
Age	Community perceptions	16.448	.422
	Individual perceptions	20.089	.216
Education	Community perceptions	32.923	.008
	Individual perceptions	51.734	.000
Occupation	Community perceptions	60.889	.000
	Individual perceptions	27.275	.039

From Table 4, it can be noted that there were no significant relationships between the age of male partners and community perceptions of MPI in maternal health care with a chi-square value of 16.448 (p=0.422), and between the age of male partners and individual perception of MPI in child health care with a chi-square value of 20.089 (p=0.216). This means that the male partner's age most likely does not influence the perception of male partners' involvement in maternal and child healthcare.

Further, there is a significant relationship between the educational attainment of male partners and community perceptions of involvement of male partners in maternal health care, with a chi-square value of 32.923 (p=0.008), and between the educational attainment of male partners and individual perception of MPI in child health care, with a chi-square value of 51.734 (p=.000). Hence, the educational attainment of male partners influences the perception of male partners' involvement in MCH care.

Furthermore, there is significant relationship between occupation of the male partner and community perceptions of the involvement of male partners in maternal healthcare, with a chi-square value of 60.889 (p=.000) and between the occupation of male partners and individual perception of MPI in child healthcare, with a chi-square value of 27.275 (p=0.039). By implication, male-partner occupations partly determine their perceptions of involvement in MCH care. This suggests that the kind of economic activities that male partners engage in determines their level of involvement. It also deduces that the community expects that male partners who have busy schedules are not supposed to involve in MCH services and vice versa.

Conclusion and Recommendation

The study concludes that men's perception of male partners' involvement in maternal and child health care varies. At the community level, there is a negative perception towards male partners' involvement in maternal and child health. The community perceives maternal and childcare as female roles. On the other hand, individual males generally have a positive view of male partners' involvement in maternal and child health.

A male partner's age does not necessarily influence the perception of male partners' involvement in maternal and child healthcare. However, males' educational attainment level and occupation seem to influence the perception of male partners' involvement in maternal and child healthcare.

Based on findings, the study recommends the development of a framework for awareness and knowledge creation through the Ministry of Health and other stakeholders to improve the community perceptions and attitudes which are engraved in culture.

References

Atuahene, M. D., Arde-Acquah, S., Atuahene, N. F., Adjuik, M., & Ganle, J. K. (2017). Inclusion of men in maternal and safe motherhood services in inner-city communities in Ghana: Evidence from a descriptive cross-sectional survey. *BMC Pregnancy and Childbirth*, *17*(1), 419. https://doi.org/10.1186/s12884-017-1590-3

Bekele, Y. A., & Fekadu, G. A. (2020). Factors associated with HIV testing among young females; further analysis of the 2016 Ethiopian demographic and health survey data. *PloS One*, *15*(2), e0228783. https://doi.org/10.1371/journal.pone.0228783

Bhattacherjee, A. (2012). *Social science research: Principles, methods, and practices*. https://scholarcommons.usf.edu/cgi/viewcontent.cgi?article=1002&context=oa_textbooks

Bogale, B., Wondafrash, M., Tilahun, T., & Girma, E. (2011). Married women's decision making power on modern contraceptive use in urban and rural southern Ethiopia. *BMC Public Health*, *11*, 342. https://doi.org/10.1186/1471-2458-11-342

Davis, J., Luchters, S., & Holmes, W. (2013). Men and maternal and newborn health. Briefing paper.

Davis, J., Vyankandondera, J., Luchters, S., Simon, D., & Holmes, W. (2016). Male involvement in reproductive, maternal and child health: A qualitative study of policymaker and practitioner perspectives in the Pacific. *Reproductive Health*, *13*(1), 81. https://doi.org/10.1186/s12978-016-0184-2

Ditekemena, J., Koole, O., Engmann, C., Matendo, R., Tshefu, A., Ryder, R., & Colebunders, R. (2012). Determinants of male involvement in maternal and child health services in sub-Saharan Africa: a review. *Reproductive Health*, *9*, 32. https://doi.org/10.1186/1742-4755-9-32.

Dunlap, J., Foderingham, N., Bussell, S., Wester, C. W., Audet, C. M., & Aliyu, M. H. (2014). Male involvement for the prevention of mother-to-child HIV transmission: A brief review of initiatives in East, West, and Central Africa. *Current HIV/AIDS Reports*, *11*(2), 109–118. https://doi.org/10.1007/s11904-014-0200-5

Ediau, M., Wanyenze, R. K., Machingaidze, S., Otim, G., Olwedo, A., Iriso, R., & Tumwesigye, N. M. (2013). Trends in antenatal care attendance and health facility delivery following community and health facility systems strengthening interventions in Northern Uganda. *BMC Pregnancy and Childbirth*, *13*, 189. https://doi.org/10.1186/1471-2393-13-189

Falnes, E. F., Moland, K. M., Tylleskär, T., Paoli, M. M. de, Msuya, S. E., & Engebretsen, I. M. (2011). "It is her responsibility": Partner involvement in prevention of mother to child transmission of HIV programmes, northern Tanzania. *Journal of the International AIDS Society*, *14*, 21. https://doi.org/10.1186/1758-2652-14-21

Forbes, F., Wynter, K., Zeleke, B. M., & Fisher, J. (2021). Male partner involvement in birth preparedness, complication readiness and obstetric emergencies in Sub-Saharan Africa: a scoping review. *BMC pregnancy and childbirth*, *21*, 1-20.

Ganle, J. K., & 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. *Reproductive Health*, *12*, 93. https://doi.org/10.1186/s12978-015-0083-y

Kamau, S. M., Ng'eno, L. C., & Ng'eno, L. C. (2017). An Advocacy Approach to Scaling up Involvement of Men in Maternal and Neonatal Child Health: A Model of Meteitei Sub-County of Kenya. *OALib*, *04*(08), 1–15. https://doi.org/10.4236/oalib.1103846

Kenya National Bureau of Statistics. (2019). *2019 Kenya Population and Housing Census Volume I: Population by County and Sub-County.* Nairobi. Government Printers. https://www.knbs.or.ke/?page_id=3142

Kinanee, J. B., & Ezekiel-Hart, J. (2009). Men as partners in maternal health: Implications for reproductive health counselling in Rivers State, Nigeria. *International Journal of Psychology and Counselling*, *1*(3), 39–44. https://doi.org/10.5897/IJPC.9000030

Krejcie, R. V., & Morgan, D. W. (1970). Determining Sample Size for Research Activities. *Educational and Psychological Measurement*, *30*(3), 607–610. https://doi.org/10.1177/001316447003000308

Kululanga, L. I., Sundby, J., Malata, A., & Chirwa, E. (2011). Striving to promote male involvement in maternal health care in rural and urban settings in Malawi - a qualitative study. *Reproductive Health*, *8*, 36. https://doi.org/10.1186/1742-4755-8-36

MacQuarrie, K. L., Edmeades, J., & Steinhaus, M. & Head, S. K. (Eds.). (2015). Men and contraception: Trends in attitudes and use [Special issue]. *Men and Contraception: Trends in Attitudes and Use DHS Analytical Studies*. Rockville, Maryland, USA. ICF International. Masaba, B. B., & Mmusi-Phetoe, R. M. (2020). Free Maternal Health Care Policy in Kenya; Level of Utilization and Barriers. *International Journal of Africa Nursing Sciences*, *13*, 100234. https://doi.org/10.1016/j.ijans.2020.100234

Matseke, M. G., Ruiter, R. A., Barylski, N., Rodriguez, V. J., Jones, D. L., Weiss, S. M., ... & Sifunda, S. (2017). A qualitative exploration of the meaning and understanding of male partner involvement in pregnancy-related care among men in rural South Africa. *Journal of social, behavioral and health sciences*, *11*.

Mbekenga, C. K., Pembe, A. B., Christensson, K., Darj, E., & Olsson, P. (2011). Informal support to first-parents after childbirth: A qualitative study in low-income suburbs of Dar es Salaam, Tanzania. *BMC Pregnancy and Childbirth*, *11*, 98. https://doi.org/10.1186/1471-2393-11-98

Mohlala, B. K. F., Gregson, S., & Boily, M.C. (2012). Barriers to involvement of men in ANC and VCT in Khayelitsha, South Africa. *AIDS Care*, *24*(8), 972–977. https://doi.org/10.1080/09540121.2012.668166

Muheirwe, F., & Nuhu, S. (2019b). Men's participation in maternal and child health care in Western Uganda: Perspectives from the community. *BMC Public Health*, *19*(1), 1048. https://doi.org/10.1186/s12889-019-7371-3

Mwije, S., & Holvoet, N. (2021). Interventions for improving male involvement in maternal and child healthcare in Uganda: A realist synthesis. *African Journal of Reproductive Health*, *25*(1), 138-160.

Nanjala, M., & Wamalwa, D. (2012). Determinants of male partner involvement in promoting deliveries by skilled attendants in Busia, Kenya. *Global journal of health science*, *4*(2), 60.

Nkuoh, G. N., Meyer, D. J., Tih, P. M., & Nkfusai, J. (2010). Barriers to men's participation in antenatal and prevention of mother-to-child HIV transmission care in Cameroon, Africa. *Journal of Midwifery & Women's Health*, *55*(4), 363–369. https://doi.org/10.1016/j.jmwh.2010.02.009

Odeny, B., McGrath, C. J., Langat, A., Pintye, J., Singa, B., Kinuthia, J., Katana, A., Ng'ang'a, L., & John-Stewart, G. (2019). Male partner antenatal clinic attendance is associated with increased uptake of maternal health services and infant BCG immunization: A national survey in Kenya. *BMC Pregnancy and Childbirth*, *19*(1), 284. https://doi.org/10.1186/s12884-019-2438-9

Ogbuabor, D. C., & Onwujekwe, O. E. (2018). Implementation of free maternal and child healthcare policies: Assessment of influence of context and institutional capacity of health facilities in South-east Nigeria. *Global Health Action*, *11*(1), 1535031. https://doi.org/10.1080/16549716.2018.1535031

Omoeva, C., & Hatch, R. (2022). Teenaged, married, and out of school: effects of early marriage and childbirth on school exit in Eastern Africa. *Prospects*, *52*(3-4), 299-324.

Ozier, O. (2018). The Impact of Secondary Schooling in Kenya. *Journal of Human Resources*, *53*(1), 157–188. https://doi.org/10.3368/jhr.53.1.0915-7407R

Petts, R. J., Knoester, C., & Li, Q. (2020). Paid paternity leave-taking in the United States. *Community, Work & Family*, *23*(2), 162–183. https://doi.org/10.1080/13668803.2018.1471589

Pintye, J., Rogers, Z., Kinuthia, J., Mugwanya, K. K., Abuna, F., Lagat, H., Sila, J., Kemunto, V., Baeten, J. M., John-Stewart, G., & Unger, J. A. (2020). Two-Way Short Message Service (SMS) Communication May Increase Pre-Exposure Prophylaxis Continuation and Adherence Among Pregnant and Postpartum Women in Kenya. *Global Health, Science and Practice*, *8*(1), 55–67. https://doi.org/10.9745/GHSP-D-19-00347

Sharma, S., Kc, B., & Khatri, A. (2018). Factors influencing male participation in reproductive health: A qualitative study. *Journal of Multidisciplinary Healthcare*, *11*, 601–608. https://doi.org/10.2147/JMDH.S176267

Wettstein, C., Mugglin, C., Egger, M., Blaser, N., Vizcaya, L. S., Estill, J., Bender, N., Davies, M.-A., Wandeler, G., & Keiser, O. (2012). Missed opportunities to prevent mother-to-child-transmission: Systematic review and meta-analysis. *AIDS (London, England)*, *26*(18), 2361–2373. https://doi.org/10.1097/qad.0b013e328359ab0c