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ORIGINAL ARTICLE

Factors associated with male partner support during pregnancy and childbirth in Kabale District, Uganda: A cross-sectional study

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ABSTRACT

BACKGROUND:
Male partner support during pregnancy and childbirth is crucial for maternal and neonatal health. Understanding the factors that influence this support is essential for developing targeted interventions.

OBJECTIVE:
This study investigated the factors associated with male partner support during pregnancy and childbirth in Kabale district, Uganda.

METHODS:
Data were gathered from 318 mothers aged 15-49 who were either pregnant or had delivered within the past 12 months and were attending antenatal or postnatal care at four selected health facilities. A semi-structured questionnaire, adapted from Prata et al. (2017), was used for data collection. Descriptive statistics and logistic regression analyses were performed to identify key factors influencing male partner support.

RESULTS:
The study found that 68% of women received overall support from their male partners. Specifically, 74.9% received financial support, 61% physical support, 72% emotional support, 63.8% communication support, and 57% decision-making support. High financial and emotional support was noted among 64% and 45% of participants, respectively, while physical, communication, and decision-making support were predominantly moderate or low. Key factors influencing support included socio-demographic characteristics, health facility-related factors, and socio-cultural influences. High scores on health facility-related factors increased the odds of male partner support (OR=1.15, 95% CI: 1.06-1.25). Socio-cultural factors were also significantly associated with support (OR=1.19, 95% CI: 1.03-1.38).

CONCLUSION:
The study highlights the critical role of financial and emotional support from male partners during pregnancy and childbirth. Health facility environments and socio-cultural contexts significantly impact male involvement. Recommendations include enhancing health facility provisions for men, designing interventions to promote male support, and recruiting male champions as peer educators. Further research is recommended to explore male partner support in post-natal care and the implementation of new WHO guidelines for antenatal visits.

KEYWORDS:
Antenatal care, Childbirth, Kabale District, Male involvement, Male partner support, maternal health, Postnatal care, Pregnancy, Reproductive health, Uganda

INTRODUCTION

Despite being natural processes, pregnancy and childbirth in developing nations come at a high risk. Even with several advancements in healthcare, many women in developing countries still lose their lives due to pregnancy and childbirth [1,2] Uganda has made great strides but maternal and infant mortality rates are still high. In 2022, Uganda's neonatal mortality rate was 22 deaths per 1,000 live births, slightly lower than the sub-Saharan African average of 27 deaths per 1,000 live births but higher than the global average of 17 deaths per 1,000 live births . The maternal mortality rate in Uganda has dropped to 189 deaths per 100,000 live births, below the regional average but notably higher than the global average of 152 deaths per 100,000 live births [3,4]. These statistics reflect ongoing efforts to achieve the Sustainable Development Goals (SDG) of 2030 through efforts to improve prenatal, delivery, and postnatal care services.

Male partner involvement in maternal and neonatal health has gained recognition globally as a critical component for improving maternal and child health outcomes. The engagement of male partners and addressing gender influences is essential for achieving progress in reproductive health [5]. The World Health Organization (WHO) suggests a focused antenatal care (ANC) model to ensure improvement in maternal health. (Figure 1) [6] .

A community-based cross-sectional study of 422 participants in Bangladesh highlighted the importance of male involvement. It revealed that 60% of the husbands provided care to their wives during pregnancy, 44% during childbirth, and 30% provided postpartum. The study found that discussions between spouses and health workers regarding maternal and reproductive health were significant predictors of male support. Conversely, low male involvement, particularly in slum areas, was associated with inadequate health services for pregnant women [7]. Similarly, a study by Tessema et al. in Debre Tabor Town, Ethiopia showed that only 37.9% (181 /477) of the male partners were involved in institutional delivery [8]..

Male partner support in pregnancy and childbirth-related care is informed and supported by the social support theory, which emphasises positive social interaction provided through social relationships and interactions. The four main types of social support are emotional (empathy, love, trust, and caring), instrumental (tangible aid and services), informational (advice, suggestions, and information), and appraisal (feedback for self-revaluation and affirmation) [9,10]. The theory of planned behaviour (TPB) further explains men's willingness to support their partners during pregnancy and childbirth, emphasising the influence of attitudes, subjective norms, and perceived behavioural control [11].

Several factors hinder male involvement in maternal health care, including poor knowledge, sociocultural factors, and inadequate and inappropriate services tailored for men [12]. Men who accompany their partners to health facilities often face social stigma. Institutional barriers such as cultural and religious beliefs, the attitude of midwives, limited space in clinics, and lack of privacy in labour wards also restrict men's participation during delivery [13].

Factors that influence male involvement in ANC include access to information, religious beliefs occupation, ethnicity, waiting time, and men's perception of healthcare providers' attitudes [14]. Men's involvement in maternity care is influenced by culture-specific maternity-related gender norms compounded by the conditions of deprivation that deny women access to resources with which they could find alternative support during pregnancy [15]. The conceptualisation associated with pregnancy and delivery as a woman's domain affects male partner support in pregnancy and childbirth care; in addition, pregnancy chores do not warrant men's efforts compared to other competing responsibilities, and those who help with house chores are subject to mockery [16].

Evidence from interventional studies conducted in African countries suggest that three exposure indexes that are consistently and significantly associated with women's use of skilled birth attendants (SBA's) include: firstly, the husband's involvement in decision-making alongside couples' discussion, planning within

the house, and finally, receiving counselling on birth preparedness during ANC.
. Men can positively influence the prevention of maternal and child mortality through prompt recognition of obstetric emergencies, initiating the decision to seek care, and transporting pregnant women to healthcare facilities [17,18]. On the other hand, the low involvement of men in maternal health care services results in low utilization of ANC, health facility delivery, and postnatal care, leading to an increased tendency of maternal mortality and morbidity [18].

Similar studies reported that more than 800 women worldwide die each day from preventable causes related to pregnancy and childbirth, and 99% of all maternal deaths occur in developing countries. Sub-Saharan Africa accounted for 201,000 (66 %) of all maternal deaths, giving a maternal mortality ratio 4(MMR) of 546 deaths per 100,000 live births in 2015, compared to MMR of 12 /100,000 for higher-income countries [19]. A qualitative study of men's involvement in maternal and child health in Malawi by Mkandawire and Hendriks shows that recognition by men of the impact of involvement, pride, advocacy, incentives, and disincentives and male champions facilitated male involvement in Malawi [20].

Studies from several low-income countries like Afghanistan and Nigeria show fewer than 50% of male partners attended at least one ANC consultation [21,22]. In the Pacific, male involvement appears to be still inadequate in striving for safe motherhood, Male partner attendance at PNC and well-baby check-ups had received less attention and lower than for ANC [23]. In Malawi, partner support in maternal health care was relatively very low [24], while in Kenya, infant delivery by skilled providers in Busia was reported to be low, with little support from partners to access health delivery services [25].

Uganda recorded a decline in MMR from 438 in 2011 and currently, the country's maternal and infant mortality rates are 336 per 100,000 and 22 deaths per 1000 live births, respectively [26]. Despite this reduction, Uganda's maternal mortality is still unacceptably high [27]. The low participation of men in maternal and child health care is one of the limiting factors to the eradication of maternal and infant mortality in Uganda [28].

Uganda situation on the magnitude of the problem showed that every day, about 20 mothers die from preventable causes [26]. The country's MMR still falls behind the target for 2030 Sustainable Development Goal (SDG3), of fewer than 70 maternal deaths per 100,000 of global live births [26]. This, therefore means that Uganda will not meet this global target by 2030. It is worth noting that the MMR in Uganda has fallen by approximately 33% over the past 20 years, from 527/100,000 in 1995 to 336/100,000 in 2016. This rate is still lower than the global reduction of 45% over the same period, according to the [29].

. The low male partner support in maternal and child health care limits the eradication of maternal and infant mortality in Uganda [28].

Kigezi region ranked as a second region with the highest maternal mortality ratio of 541/100,000 live births to Karamoja with 588/100,000 out of the 15 regions [1,2]. Kigezi is a patriarchal society, and in Kabale district, studies have shown that male partner support in maternal and child health is low [29,31]. Low partner support in maternal health care services results in low utilization of ANC, health facility delivery, and postnatal care, leading to an increased tendency towards maternal mortality and morbidity.

Men's support is vital in enhancing maternal and health outcomes. Pregnancy and childbirth have traditionally been considered women's domain. The key roles of men in decision-making, financial support, physical support informational/communication, and emotional support cannot be underrated. This is because pregnancy and childbirth create a lot of physical, mental, social and emotional demands on the woman's well-being and, therefore, require men to play a central role.

Kabale district has high maternal and neonatal mortality rates, thus highlighting a significant public health concern. The unique socio-cultural dynamics of the area, including traditional gender roles and limited healthcare resources, contribute to these adverse

health outcomes. Male partner support during pregnancy and childbirth has been identified as a crucial factor that can positively influence maternal and neonatal health outcomes. Understanding the factors that influence male partner support is essential for developing target interventions. Despite the known benefits of male involvement in maternal health, there is a knowledge gap pertaining Kabale university.

This study aimed to determine the proportion of women in Kabale district that were receiving support from their male partners during pregnancy and childbirth; assess the level of support received from their male partners; and identify the factors associated with male partner support. By achieving these aims, the research seeks to inform the development of tailor-made health interventions to mitigate the high maternal and neonatal rates in Kabale district.

METHODS

Study Design:
This study used a cross-sectional design to identify associations between various factors and male partner support during pregnancy and childbirth.

Study Setting:
Kabale district is found in the Kigezi region of western Uganda, located approximately 410km (255Mi) by road southwest of the Capital Kampala –Uganda. Kigezi region ranked second to Karamoja with an MMR of 541/100,000 live births [29]. The study was conducted in Kabale district, Uganda, at four selected health facilities: Rugarama Hospital, Rushoroza Hospital, Maziba Health Centre IV, and Kamuganguzi Health Centre III.

Study Population:
The target population included all mothers of reproductive age (15-49 years) in Kabale district who were pregnant or had given birth within the past 12 months. Specifically, the study involved mothers within this age range who were ANC or PNC at Kamuganguzi HCIII, Maziba HCIV, Rushoroza Hospital, and Rugarama Hospital in Kabale District.

Sample size:
We used Slovin's formula to determine the sample size for this study. This formula is appropriate when the population size is known, and a specific margin of error is acceptable. The formula is given by $n = N / (1 + Ne^2)$, where n is the sample size, N is the population size, and e is the margin of error. Given the population size of 1252 mothers attending the 4th antenatal visit and a margin of error of 5%, the calculated sample size was 303. Setting the non-response rate at 5%, the sample size increased to 318 respondents.

Sampling Technique:
The selection of health facilities was made by stratifying the health facilities in Kable District. The researcher applied the lottery method of random sampling to select the four health facilities. Kabale district has two hospitals, 04 health Centre IVs, and 09 Health Centre IIIs. Two hospitals, Rugarama and Rushoroza, were purposively selected and the sample size was calculated for each hospital (using an example of Rushoroza hospital target population of 442 to derive the sample size of study respondent as (442/1252* 318= 112) while Health Centre IVs and Health Centre IIIs were combined to make 13 health facilities and assigned random numbers on their separate sheets of paper of similar size and colour, folded and mixed up in a box. A blindfold selection was made to select two facilities out of them.

Selection of study participants:
Convenience sampling was used to identify mothers who attended health facilities for postnatal mothers who had delivered to get information about their childbirth experiences; in addition, those undergoing ANC were enrolled in the study. Maziba health centre 64 mothers, Rugarama Hospital 76 mothers were selected, Kamuganguzi 66 mother selected while at Rushoroza hospital 112 mothers were selected. Thereafter these mothers were assessed for their male partner's support to seek for the proportion of women who received support as well as the level of support they received.

Study Inclusion criteria:
All mothers attending their ANC and had ever had childbirth and those attending for PNC. Only mothers with male partners were included.

Study Exclusion criteria:
Mothers who fall below the reproductive age of 15 years, and mothers attending their first ANC were excluded since they had no previous pregnancy and child experiences that could help the researcher establish whether they received or not the support in pregnancy and childbirth. Single mothers were also excluded.

Data Collection:
Study Instrument: The study employed the use of a semi-structured questionnaire with both open and close-ended questions administered to mothers to elicit mothers' experiences of their male support received during pregnancy and childbirth in line with study-specific objectives. Factors associated with male partner support included social demographic factors such as marital status, age, spouse knowledge on pregnancy needs and dangers, education level, occupation, history of pregnancy complications, type of marriage, religion, number of children, the social and cultural factors. Male partner support was assessed using questions that elicited the participants' financial, physical, emotional, communicational /informational and decision-making support that was received from their partners. The tool used was adopted from a study done on male support for family planning and modern contraceptive use in Luanda, Angola [32]. Study instrument reliability statistics test Cronbach's Alpha N of items is .932 for 75 items. The study instruments were further translated into the local language for easy comprehension before it was used. Data collection lasted for two months and data was organised in five stages; interpretation was done by constantly making comparisons within a local and wider context. Raw data was stored under lock and key and would be destroyed after three years to avoid concocted data.

Potential biases included selection bias and recall bias. Selection bias may have occurred if study participants differed significantly from non-participants. Recall bias was a concern due to reliance on self-reported data. To minimise these biases, random sampling and validated questionnaires were used. Potential confounders included age, education level, income, and access to healthcare services. These factors could have affected both male partner support and pregnancy outcomes. Multivariate logistic regression was used to adjust for these variables.

Data Analysis:
Descriptive statistics, including frequencies and percentages, were used to describe the proportion of women receiving various types of male partner support. *Objective one:* descriptive statistics of frequencies and percentages were used in getting the proportion of women who received the various types of financial, physical, emotional, and communicational and decision-making support. *Objective two:* the total score of male partner support was categorized into a binary variable of high support and low support i.e. score less than 99 was recorded as 0 (low support) and a score of 99 and above was recorded as 1 (high support). *Objective three:* logistics regression for crude odds ratio at 0.05 level of significance to determine the factors associated with male partner support and variables statistically significant were further analysed at a multivariable level using logistics regression for adjusted odds ratio at a 0.05 level of significance while controlling for the biologically plausible variables of marital status, age and type of marriage.

Ethical Approval:
Ethical approval to conduct this study was sought from Mbarara University of Science and Technology with IRB No MUST-2022-353. Administrative permission was sought from the Department of Community Health for the intent to conduct data collection. A copy of it was presented to the district Health office for signing and permission was granted to go to facilities and conduct the study. Written informed consent was presented to all participants and sought their consent before participation. Participants were informed of no risk to their participation. They were also assured of total confidentiality and their participation was voluntary with the right to withdraw their participation at any time during the interview. Study participants were informed of no effect or harm for their refusal or non-participation in the study and their participation was solely for academic purposes.

RESULTS

Demographic Characteristics of the Study Participants

We gathered data from 318 mothers aged 15-49 who were either pregnant or had delivered within the past 12 months. These mothers had been attending antenatal or postnatal care at the four selected health facilities. Most mothers studied were between 25 and 35 years old, representing 175 (55 %) while their occupations were majority self-employed (business, farming, craft and trading) representing 279 (87.7%). Most mothers of about 219 (68.9 %,) had either attained primary or secondary level education or a good number of them 299 (94%) were Christians. In addition, about 310 (97, 5%) were married. Furthermore, a higher number 219(68.9%) had a history of pregnancy and childbirth problems. Lastly, a large number of the mothers 281(88.4 %) were from monogamous marriages and resided in less than 5 kilometres 193 (60.7 %) (Table 1).

Table 1. Descriptive statistics of the Participants Demographic Characteristics (318)

Study Variables	Options	Freq	%
Age Group	15-24	91	28.6
	25-35	175	55
	36-49	52	16.4
Occupation	Public Servant	25	7.9
	Self Employed (Business, farming, craft, trading)	279	87.7
	Others	14	4.4
Educational Status	No formal Education	30	9.4
	Primary / Secondary Level	219	68.9
	Higher Education	69	21.7
Religion	Christian (Anglican, Born Again, Catholic)	299	94
	Non-Christian	19	6.0
Marital Status	Married	310	97.5
	Widowed	8	2.5
Type of marriage	Monogamous	281	88.4
	Polygamous	37	11.6
Number of children	1 - 3 Children	233	73.3
	3 and above	85	26.7
History of pregnancy& childbirth problems	Yes	219	68.9
	No	99	31.1
Distance to the Facility	≤5kms	193	60.7
	6-10 kms	82	25.8
	>10 kms	43	13.5

The health facility where the woman attended antenatal delivery

Study findings from the distribution of health facilities the respondents attended, the numbers differed by proportionate sample disaggregation depending on antenatal visits captured in the April - September 2021 rollout. As such the majority of respondents to that effect were from Rushoroza Hospital.

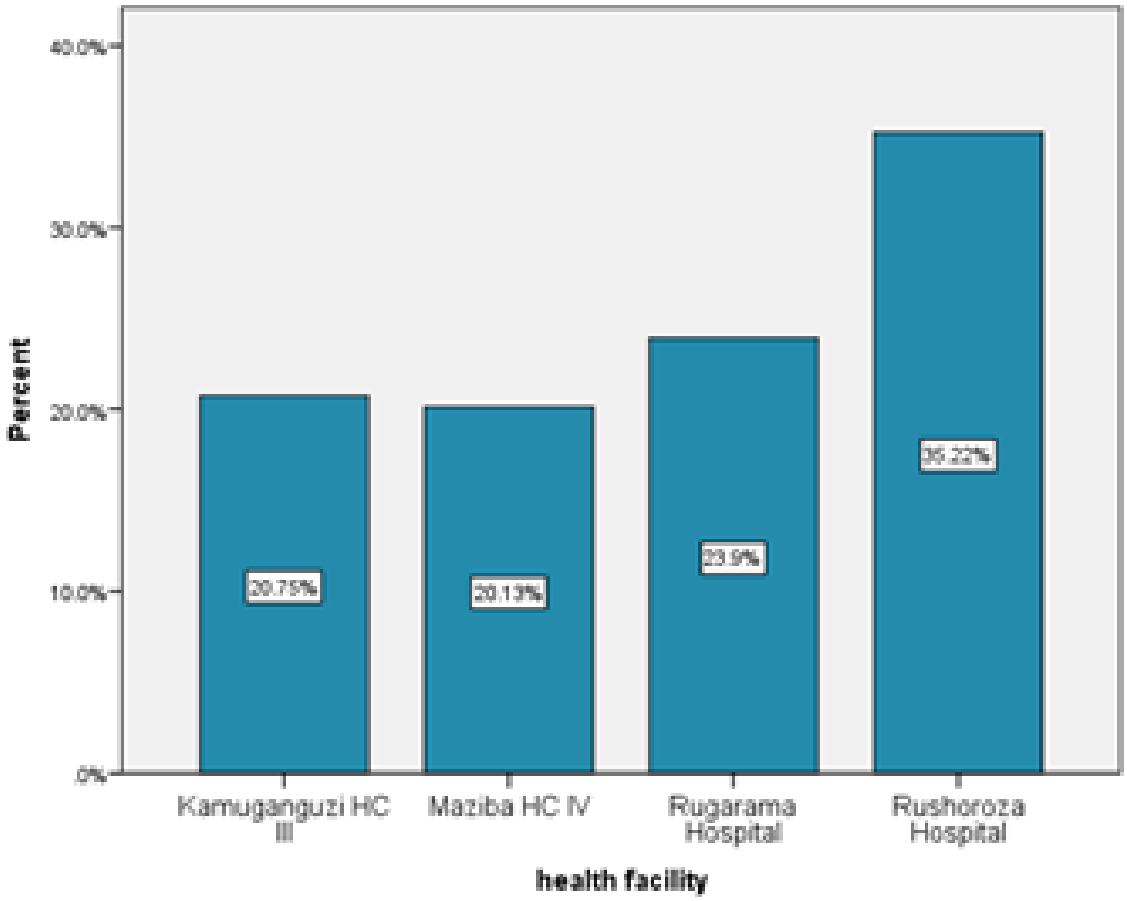

Figure 1. Health facilities attended for ANC services

The proportion of women who received male support during pregnancy and childbirth in selected health facilities

A total of 238 (74.9%) received financial support from their male partners during pregnancy and childbirth, especially for the purchase of medication and payment of bills 263 (82.7%). And financial offers of food 257 (80.8), setting money aside during pregnancy and childbirth 254(79.9%). The total average number of women who received physical support in the study was 194 (61%), while the most aspect of physical support was the husband's presence during labour and childbirth 251(78.9), followed by transporting her to health facility 248 (77.9) and participation in newborn care (61.9%). The total average number of women who received emotional support were 229(72%) and the highest number of women in the study that received love, empathy and care during time of pain were 257(80.8%) respectively. About 253(79.5%) women in the study receiving love, care and empathy throughout pregnancy period, and another 252 (79.2%) received understanding from their husbands on what they were going through in pregnancy and childbirth. The total average number of women who received communication support was 203 (63.8%), while those who were engaged in communication support about the place of delivery were about 248 (77.9%), those women supported by encouragement to take prescribed drugs and discussion of maternal health issues were 225 (70.7%). On average, the number of women who received decision-making was 181(57%), the most aspect of decision-making received were decision-making on place of delivery 242 (76.1%) and those assisted in planning to seek for care 239 (75.1 %) and decision on the place of birth 191 (60%). Overall proportion of women who received male partner support were 216/318 representing 68%. (Table 2).

Table 2. Proportion of women who received the various support (n = 318)

Type of support received by mothers/women.	No of mothers who received support	%
Financial Support		
Husband bought medication and Pays bills	263	82.7
Saved money aside during pregnancy and childbirths	254	79.9
Husband gave me financial support when I ask for it for food	257	80.8
Took me or baby to hospital whenever the need arises (Paid for transportation)	249	78.3
Helped me to prepare and save money for ANC visits and delivery	212	66.6
Average percentage of financial support	238	74.9%
Physical support		
Husband always accompanied me to hospital during ANC	149	46.9
Assisted me at home for household tasks	147	46.2
Provided and prepared nutritious meals during pregnancy	205	64.4
Provided for transportation to the health facility	248	77.9
Participated in the antenatal care consultation	156	49.
Was present during labour and childbirth	251	78.9
Took care of the newly born baby	196	61.6
Participated in the first newborn antenatal care.	197	61.9
Average percentage of physical support	194	61%
Emotional support		
Showed love, empathy and caring when I was in pain	257	80.8
He was understanding of my situation during pregnancy	252	79.2
Expressed love, care and empathy during pregnancy	253	79.5
Was encouraging	243	76.4
Was always there for me.	226	71
Joined medical queues for me.	143	44.9
Average percentage of emotional support	229	72%
Communication support		
Discussed maternal health issues with me	217	68.2
Encouraged me to take prescribed drugs	225	70.7
Helped me in preparing birth plan	206	64.7
Husband discussed with health care providers about my pregnancy and childbirth status.	166	52.2
Discussed with me on about what happens during ANC	198	62.2
Communicated with me about the place of delivery.	248	77.9
Shared with me information about postnatal care	169	53.1
We discussed together about birth preparedness and complication readiness plans.	196	61.6
Average percentage of communication support.	203	63.8%
Decision making support		
Assisted in planning for seeking care.	239	75.1
Decision making for place for delivery.	242	76.1
He is the one who took the decision for to go to antenatal care.	146	49.9
He is the one who decided on the place of birth	191	60.0
He is the one who took the decision to go for newborn care	145	45.6
He is the one who decided that we go for postnatal care	124	39
Total percentage support of decision-making support	181	57%

Overall proportion of women who received male partner support were 216/318 representing 68%

Level of men's support that the women in the study received during pregnancy and childbirth

From the study findings, the majority of the participants 205(64%) received high financial support, 59(19%) received low financial support and only 54(17%) received moderate financial support. The majority of the participants 129(41%) received low physical support, 119(37%) had moderate physical support and only 70(22%) received high physical support. The majority of the participants 142(45%) received high emotional support, 107(34%) had moderate physical support and only 69(22%) had low emotional support. Majority of the participants 160(50%) received moderate communication support, 92(29%) received Low Communication Support while 65(21%) received High Communication Support. Of the 318 participants, women who received high decision-making support were 131(41%), similar to those who received low decision-making support and only 56(18%) received moderate support (Table 3).

Table 3. Level of men's Support (n=318)

Study variable	Freq.	(%)
Financial Support		
High support	205	64
Moderate	54	17
Low support	59	19
Physical Support		
High support	70	22
Moderate	119	37
High Support	129	41
Emotional Support		
High Support	142	45
Moderate	107	34
Low support	69	21
Communication Support		
High support	65	21
Moderate	160	50
Low support	92	29
Decision Making		
High support	131	41
Moderate	56	18
Low	131	41

Factors associated with male partner support

Bivariate Analysis of factors associated with male partner support was done and results from bivariate analysis showed a significant association between health-related factors and support women received from their male partners (OR=1.16, 95%CI: 1.08 to 1.25, p<0.001). Contextual Social cultural related factors were also significantly associated with the support women received from their male partners (OR=1.19 95%CI: 1.03 to 1.38, p=0.017) (Table 4).

Table 4 Factors associated with male partners support during pregnancy and childbirth

	Male partners support during pregnancy and childbirth			
Study Variables	cOR	p-value	95% CI	
Age Group			LCI	UCI
15-24	ref			
25-35	0.72	0.229	0.42	1.23
36-49	1.25	0.534	0.62	2.52
Occupation				
Public Servant	ref			
Self Employed	0.99	0.992	0.41	2.39
Others	1.18	0.813	0.30	4.69
Educational Status				
No formal Education	Ref			
Primary / Secondary Level	0.90	0.806	0.39	2.08
Higher Education	2.02	0.132	0.81	5.03
Religion				
Christian	Ref			
Non-Christian	0.55	0.295	0.18	1.69
Marital Status				
Married	Ref			
Single	0.70	0.666	0.14	3.53
Type of marriage				
Monogamous	Ref			
Polygamous	0.76	0.485	0.35	1.64
Number of children				
1 - 3 Children	Ref			
3 and above	1.41	0.200	0.84	2.37
History of pregnancy& childbirth problems				
Yes	Ref			
No	0.86	0.560	0.52	1.43
Distance to the Facility				
≤5kms	Ref			
6-10 kms	0.82	0.497	0.47	1.44
>10 kms	0.57	0.151	0.26	1.23
Individual Related Factors, Total Score	1.04	0.374	0.95	1.14
Health related factors, total score	1.16	<0.001	1.08	1.25
Contextual / Social cultural related factors, Total Score	1.19	0.017	1.03	1.38

Note: cOR=Crude odds ratio, p= probability value at 0.05 level of significance**,** CI=95% Confidence Interval

Association between male partner's support during pregnancy and childbirth and its predictors

A logistic regression was run with a binary variable (male partner support during pregnancy and childbirth) as a dependent variable and health-related factors and

contextual/social-cultural related factors as predictors since they were significant at a bivariate analysis while controlling for marital status, type of marriage and age.

The model was of a good fit (likelihood chi-square 21.05) and is statistically significant (p=0.0018). High score of women on health-related factors was associated with high odds of male partners support during pregnancy and child birth (OR=1.15, 95%CI: 1.06 to 1.25, p=0.001) (Table 5).

Table 5. Association between Male partners support during pregnancy and childbirth and its predictors

	Male partners support during pregnancy and childbirth			
Study Variables	OR	p-value	95% CI	
Age group			LCI	UCI
15-24	ref			
25-35	0.78	0.396	0.44	1.38
36-49	1.26	0.538	0.61	2.61
Marital status				
Married	Ref			
Single	0.53	0.464	0.10	2.88
Type Marriage				
Monogamous	Ref			
Polygamous	0.71	0.396	0.32	1.57
Health Related Factors, Total Score	1.15	0.001	1.06	1.25
Contextual / Social cultural related factors, Total Score	1.03	0.778	0.86	1.22

Note: OR=Crude odds ratio, p= probability value at 0.05 level of significance**,** CI=95% Confidence Interval

DISCUSSION

Summary of key findings

The study findings underscore the importance of male partner support during pregnancy and childbirth in Kabale district. Financial and emotional support emerged as key components of male involvement, while physical support was relatively low. The influence of health facility-related factors and socio-cultural norms on male support highlights the need for targeted interventions to promote male involvement in maternal and neonatal health.

Strengths and limitations of the study

There is no doubt that the study is relevant to public health because male partners' support greatly improves maternal and neonatal life and well-being. Findings from the study provide great insight to the socio – cultural and economic factors affecting male partners support in Kabale. Cross-sectional design provides an opportunity to collect data at a single point to generate the prevalence of male partner support and other relevant influencing factors.

This study has some limitations, including the reliance on self-reported data, which may be subject to recall bias, and the use of a cross-sectional design, which limits the ability to infer causality. Additionally, the findings may not be generalisable to other regions beyond Kabale district. Despite these limitations, the study still provides a significant contribution to understanding the improvement of male partner support in pregnancy and childbirth within Kabale district cultural and socio-economic context.

Comparison with previous studies on the topic

The proportion of women receiving male partner support: The study findings on the average support received by the study respondents during pregnancy and child's birth showed that a total of 238 (74.9%) received financial support. 194 (61%) received

physical support, 229(72) received emotional support, 203 (63.8%) received communication support and 181(57%) received decision-making support. Relating to a study done by Zakaria in urban slum areas of Bangladesh, Zakaria [7]. This study highlighted a higher level of male support than support received by women in Bangladesh in a similar slum urban setting. Comparing the number of men accompanying their spouse in this study to Kabanga's hospital-based cross-sectional study undertaken in Kyela district-Mbeya in Tanzania, Kabanga [33], there is considerably low male partner support in the aspect of men accompanying their spouse to ANC in Kabale district, both Kabale and Kyela district are rural based districts and therefore, the findings are tailored from same settings. In terms of joint decisions, only 57.6 per cent of women in this study presented receiving decision-making support from their male partners during pregnancy and childbirth, relating to a similar study conducted in Dodoma Region, Central Tanzania, by Gibore [14]. And it was found that male partner support in terms of decision-making was low in Kabale-Uganda. Similarly, the rate of physical support in this study was low at 61% compared to 77.3% reported by Gibore's study findings in Tanzania, however, there is noted difference in study setting, with Gibore's study being urban based in the central region of Tanzania and as such being urban, certain factors different from Kabale – a rural district could have facilitated male partner performance in the area.

Level of men's support received during pregnancy and childbirth.

The study findings on the level of support found that the majority of the participants received high financial support, low physical support, high emotional support, and moderate communication support. In contrast, women who received high decision-making support were similar to those who received low decision-making support.

Factors associated with male partner support during pregnancy and childbirth

The study results found that health facility-related factors and contextual/social-cultural-related factors were significantly associated with the support women received from their partners. A logistic regression run with a binary variable (male partner support during pregnancy and childbirth) as a dependent variable and health-related factors and contextual/social-cultural-related factors also showed a high score of health facility-related factors associated with high odds of male partner support during pregnancy and child birth.

The study results coincide with Kura's study, [11] which reported that male partners' poor knowledge of socio-cultural factors hampered the utilization of health services by pregnant wives. Similarly, findings relate to the study by Kariuki and Seruwagi [34] which attributed low male involvement to socio-demographic factors such as education, marriage and lower income status to decrease male support, the findings also relate to Gibore [14] study findings which indicated religion, occupation, ethnicity, and waiting time to influence men's support significantly. Village life influences were reported to significantly influence male support in this study, similar to what Helleve reported in his study, which was that men who escorted their partners were subjected to gossip by their male counterparts [34]. Working long distance from home, peer group influence, alcoholism, Polygamy, Fear of testing for HIV/AIDs when they go to the facility, Poverty (Low income to support family, Ignorance of men's roles and responsibilities and benefits of their support also affect male support.

Interpretation of the findings

The study findings point to the fact that male partners' supports are influenced by; demographic, socio-economic, cultural and maternal and child health knowledge. Provision of targeted interventions that stimulate partners and having inclusive health care services during ANC, labour and postnatal care that promotes male partners' support will enhance maternal and neonatal health outcomes. Uganda government should ensure that the health facilities environment has adequate program to in cooperate and popularize male support for the female spouses.

Implications of findings

The study contributes to understanding the factors that influence male partners' support during pregnancy and child's birth in the African context. The findings also emphasize the critical role of financial and emotional support from male partners in maternal and neonatal health and wellbeing. Addressing health

system factors and relevant socio-cultural norms is essential for enhancing male partners' involvement and improving maternal and neonatal health outcomes in the region.

Future research should explore additional strategies to promote male partners' support and evaluate their effectiveness in improving maternal and neonatal health outcomes. Another study can assess male partner support in post – natal care. Or study to determine the ANC's adoption, compliance and performance on new WHO guidelines for 8 ANC visits.

CONCLUSION

The study found that most women received some form of support, which contributes to understanding factors that influence male partners' support during women's pregnancy and post child's birth in Kabale district, Uganda. The most common forms of support were financial and emotional, as opposed to physical, and showed the critical role of financial and emotional support from male partners in maternal and neonatal health. Furthermore, spouse communication and decision-making support was observed in the study. Health facility related factors and socio- cultural factors had the biggest effect on male partner support for women during pregnancy and child birth. This is crucial for enhancing male involvement and improving the region's maternal and neonatal health outcomes.

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CONFLICT OF INTEREST

All authors declare no conflict of interest related to this work.

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