

Original Research Article

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Predisposing and enabling factors influencing the utilisation of maternal healthcare services at fishing landing sites in Buikwe district, Uganda

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ABSTRACT

Background: Studies have demonstrated that women who get professional healthcare personnel's prenatal, delivery, and postnatal care have better pregnancy outcomes, which lowers the incidence of both neonatal and mother deaths. Uganda is among the sub-Saharan African countries with the highest percentages of maternal deaths of which the majority of the deaths take place in remote, resource-constrained areas, such as fishing landing sites. We investigated the factors influencing the use of maternity healthcare services by women from remote Lake Victoria islands fishing settlements in the Buikwe district of Uganda.

Methods: A cross-sectional study design with a quantitative approach was used. One hundred and four mothers were recruited in the study carried out at Ssenyi, Kiyindi and Nkombwe landing site in Buikwe district. Questionnaires were used to obtain information from mothers about predisposing factors, and enabling factors. Multinomial logistic regression was used to determine which factors influenced the use of maternal healthcare services.

Results: Marital status ($p=0.045$, aOR=0.582; 95% CI=0.163-2.082) and paternal occupation ($p=0.017$, aOR=1.335; 95% CI=0.059-8.348) were the factors influencing maternal healthcare service utilisation among the respondents.

Conclusions: Increasing the amount of actions meant to raise socioeconomic standing and involving the men in maternal health seeking might aid in enhancing maternal healthcare services use by women at the landing sites in Uganda.

Keywords: Maternal health, Maternal healthcare services, Landing site, Traditional birth attendant, Buikwe

INTRODUCTION

Improving the rates of maternal and newborn mortality requires the use of efficient maternal healthcare.¹ Better pregnancy outcomes for women who get prenatal, birth, and postnatal care from qualified healthcare professionals lower the risks of both neonatal and maternal death.²⁻⁴ The percentage of women in sub-Saharan Africa who use healthcare services is still below 70%.⁵ The greatest rates of newborn and maternal mortality worldwide are seen in Sub-Saharan Africa, with 27 neonatal deaths per 1,000 live births and 533 maternal deaths per 100,000 live births, accounting for approximately 68% of all maternal deaths globally.^{6,7} Uganda is among the Sub-Saharan African countries with the highest percentages of maternal

fatalities, with an maternal mortality rate (MMR) of 336 per 100, 000 live births.⁸ Majority of fatalities take place in remote, resource-constrained areas, such as fishing landing sites which are hard to reach areas.⁸

One of Uganda's most remote and resource-constrained areas is fishing communities (FCs) on Lake Victoria. These communities may have restricted access to social services, such as obstetrical care. Buikwe district is one of the districts in Uganda that is heavily populated with landing spots where the above scenario applies. While both the global and national MMR are those that were previously given, the startling ratio in the Buikwe district is 540 fatalities per 100,000 live births, and many of them take place in fishing villages.⁹

A fishing community is a social-economic group of local residents who depend mostly on fishing for their income, either directly or indirectly. Members include fishermen, boat owners, those who process fish, boat builders, people who deal in fishing equipment and repair it locally, managers of fishing boats, local establishments including restaurants and taverns, brothels, and fishmongers or traders.¹⁰ Few studies have examined on maternal healthcare among FCs and, presumed this was because of presence of elements connected to poor treatment. It has been reported that most residents of these localities stay there for fewer than five years.^{11,12} Short-term stays have an impact on service availability and planning, for maternal healthcare services. Poor literacy rates in these communities have historically been associated with poor maternal healthcare services utilisation in other settings.^{11,13-15} FCs remoteness hinders maternal healthcare services use and makes it logistically difficult to deliver the much-needed maternal healthcare services supplies to remote health facilities. Prior research has emphasised the significance of maternal healthcare and pinpointed some elements that impact the personal utilisation of prenatal, postnatal, and delivery care.^{2,4,16-20} Few studies have been carried out in the fishing communities. This study was undertaken to examine the use of maternal healthcare services and the factors influencing the usage among fishermen population in Buikwe district.

METHODS

Study design

A cross sectional study design was used in the study with a quantitative data collection approach to ensure that major variables for the factors which determined women's use and non-use of maternal healthcare services were measured numerically.

Study area

The study was carried out in three landing sites in Buikwe District which are Ssenyi landing site, Kiyindi landing site and Nkombwe landing site.

Study period

The study was conducted in a period of 5 weeks from 06 February 2023 to 13 March 2023.

Study participants

A total of 104 women were chosen from the three landing sites in Buikwe district. Participants were included if they were 20–49 years, sought for maternal and child healthcare services at the landing site and voluntarily consented to participate in the study. Exclusion criteria included participants who had stayed at the landing site for less than a one years and those who weren't ready to take part in the research.

Sampling technique

The study embraced the multistage sampling technique where by the landing sites were put in three stratas (stratified sampling), then the necessary quantity of responders was chosen from each strata using simple random sampling.

Data collection

Data collection was done through asking of questions about the use of maternal healthcare services. Participants were invited to complete the questionnaire. Participants who were incapable of reading and writing were given oral questions following the questionnaire guide by the researchers.

Study tools

Questionnaires were used to collect primary data on utilisation among the participants. The questionnaires consisted of three sections which were the socio demographic characteristics of women, predisposing indicators for use of maternal healthcare services and enabling indicators for use of maternal healthcare services. The questionnaires were converted to the regional tongue mostly used at the landing sites (Luganda) and the responses were transcribed into English language.

Data analysis

For every analysis, statistical package for the social sciences (SPSS) version 20 was utilised. For the dependent and independent variables pertaining to women, descriptive statistics were provided. To ascertain the relationship between the variables, one-way analysis of variance (ANOVA) was used. The relationship between the usage of maternity healthcare services and a few chosen independent factors was investigated using logistic regression. Significance was at a p value <0.05.

Ethical consideration

The study was approved by The AIDS Support Organisation Research Ethics Approval Committee (TASO – 2022 – 177). All participants were informed of the study's goal, and their agreement was acquired, and the participants were made aware of their freedom to leave the research at any time. Confidentiality and anonymity were ensured throughout the study.

RESULTS

Demographic characteristics of women at the fishing landing sites

The study found that, majority (78.7%) of the mothers was married. Over 37.3% (n=41) had an age range of 20–24 years. Nearly half of the mothers 47.3% (n=52), had only primary education. Over 36.9% (n=41) were unemployed.

More than half of the respondents had only 1–3 children (Table 1).

Use of maternal healthcare services at the landing sites

Majority (76.5%) of the women had ever used maternal healthcare services as 21.6% were motivated to use the services due to the good care they had acquired while using the services though majority 47.7% had no motivation they got to be influenced to use the services. We found that majority 54.5% of the women gave birth to their last born children from the health centre however a similarly high number 37.9% gave birth from the traditional birth attendants (Table 2).

Factors influencing the use of maternal healthcare services at the landing sites

The results of the one-way ANOVA analysis showed a significant association between the predisposing factors ($F=0.540$, $p<0.05$) and enabling factors ($F=1.464$, $p<0.05$) with the use of maternal health services. Further the

bivariate analyses of utilisation of maternal healthcare services and the independent variables found that marital status was the main predisposing factor that significantly influenced the use of maternal services ($p=0.045$, $OR=0.582$; $CI=0.163$ – 2.082) (Table 3) while fathers' occupation was the individual enabling factor that significantly influenced the utilisation of maternal health services ($p=0.017$, $OR=1.335$; $CI=0.059$ – 8.348) (Table 4).

Influence of each determinant factor on use of maternal healthcare service

Holding other variables constant, marital status was found to be significant to utilising of maternal health services at the landing sites and specifically being single was significant $p=0.000$, whereby single mothers were twice more likely to utilise maternal health services than those that were divorced ($aOR=2.273$; 95% CI 2.044–8.788, $p<0.05$) while women whose husbands were farmers were sixteen times more likely to utilise the maternal health services than those women that had unemployed husbands ($aOR=15.913$; 95% CI 2.652–95.494, $p<0.05$) (Table 5).

Table 1: Descriptive characteristics of participants at the landing sites.

Characteristics	Ssenyi (%)	Kiyindi (%)	Nkombwe (%)	Total (%)
Age (in years)				
20-24	14 (37.8)	10 (30.3)	17 (42.5)	41 (37.3)
25-29	6 (16.2)	11 (33.3)	5 (12.5)	22 (20.0)
30-34	10 (27.0)	6 (18.2)	4 (10.0)	20 (18.2)
35 and above	7 (18.9)	6 (18.2)	14 (35.0)	27 (24.5)
Marital status				
Single	7 (18.9)	10 (32.3)	5 (12.5)	22 (20.4)
Married	30 (81.1)	20 (64.5)	35 (87.5)	85 (78.7)
Other	0 (0.0)	1 (3.2)	0 (0.0)	1 (0.9)
Mothers occupation				
Business	3 (8.1)	15 (44.1)	10 (25.0)	28 (25.2)
Farmer	1 (2.7)	0 (0.0)	11 (27.5)	12 (10.8)
Fisherman	5 (13.5)	4 (11.8)	1 (2.5)	10 (9.0)
Market vender	2 (5.4)	4 (11.8)	1 (2.5)	7 (6.3)
Mukene seller	11 (29.7)	1 (2.9)	0 (0.0)	12 (10.8)
Nurse	0 (0.0)	1 (2.9)	0 (0.0)	1 (0.9)
Unemployed	15 (40.5)	9 (26.5)	17 (42.5)	41 (36.9)
Fathers occupation				
Boda boda rider	3 (8.1)	1 (2.9)	4 (14.0)	8 (7.2)
Business	3 (8.1)	4 (11.8)	6 (15.0)	13 (11.7)
Farmer	6 (16.2)	1 (2.9)	11 (27.5)	18 (16.2)
Fisherman	10 (27.0)	8 (23.5)	9 (22.5)	27 (24.3)
Market vender	1 (2.7)	3 (8.8)	0 (0.0)	4 (3.6)
Unemployed	14 (37.8)	15 (44.1)	9 (22.5)	38 (34.2)
Other	0 (0.0)	2 (5.8)	1 (2.5)	3 (2.7)
Economic status				
Average status	17 (45.9)	16 (51.6)	10 (32.3)	43 (43.4)
Poor status	20 (54.1)	15 (48.4)	21 (67.7)	56 (56.6)
Education				
None	14 (37.8)	3 (9.1)	2 (5.0)	19 (17.3)
Primary	14 (37.8)	14 (42.4)	24 (60.0)	52 (47.3)

Continued.

Characteristics	Ssenyi (%)	Kiyindi (%)	Nkombwe (%)	Total (%)
Secondary	9 (24.3)	15 (45.5)	13 (32.5)	37 (33.6)
Tertiary	0 (0.0)	1 (3.0)	1 (2.5)	2 (1.8)
Number of children				
1-2	8 (28.6)	12 (42.9)	14 (38.9)	34 (37.0)
3-4	8 (28.6)	11 (39.3)	13 (36.1)	32 (34.8)
5-6	11 (39.3)	5 (17.9)	4 (11.1)	20 (21.7)
7-8	1 (3.6)	0 (0.0)	5 (13.9)	6 (6.5)
Heard about maternal healthcare services				
No	12 (32.4)	4 (12.1)	12 (30.8)	28 (25.7)
Yes	25 (67.6)	29 (87.9)	27 (69.2)	81 (74.3)
Mechanism of hearing about these services				
Health centre	13 (35.1)	8 (23.5)	9 (22.5)	30 (27.0)
Public address system	3 (8.1)	5 (14.7)	8 (20.0)	16 (14.4)
Radio	4 (10.8)	1 (2.9)	6 (15.0)	11 (9.9)
Village health teams	4 (10.8)	3 (8.8)	1 (2.5)	8 (7.2)
Other	2 (5.4)	12 (35.2)	2 (5.0)	16 (14.4)

Table 2: Utilisation of maternal healthcare services by the women at the landing sites.

Variables and categories	Frequency	Percentage
Ever used any of these services		
No	24	23.5
Yes	78	76.5
What motivated the use of MHCS		
No motivation	53	47.7
Fair	23	20.7
Family planning	9	8.1
Good care	24	21.6
Healthy family	2	1.8
Where was your most recent child born?		
Health centre	36	54.5
Hospital	5	7.6
Traditional birth attendants	25	37.9
Preferred health personnel		
Doctor	57	47.1
Nurse/midwives	52	43.0
Traditional birth attendants	12	9.9
Preferred area for seeking MH services		
Health centre	64	57.7
Hospital	2	1.8
Traditional birth attendants	45	40.5

Table 3: Predisposing factors influencing utilization of maternal healthcare services.

Parameters	ANOVA		Bivariate analysis			95% C.I. for OR		
	F	Sig.	B	S.E.	Sig.	OR	Lower	Upper
Predisposing indicators								
Age			0.190	0.286	0.508	1.209	0.690	2.119
Marital status	0.540	0.048	-0.542	0.651	0.045*	0.582	0.163	2.082
Education level			-0.011	0.393	0.977	0.989	0.458	2.135
Number of children			0.204	0.402	0.612	1.226	0.558	2.696

*Significant.

Table 4: Enabling factors influencing utilization of maternal healthcare services.

Parameters	ANOVA		Bivariate analysis			95% C.I. for OR		
	F	Sig.	B	S.E.	Sig.	OR	Lower	Upper
Enabling indicators								
Fathers' occupation	1.464	0.036	0.884	1.260	0.017*	1.335	0.059	8.348

Continued.

Parameters	ANOVA		Bivariate analysis		95% C.I. for OR	
Mothers' occupation			9.275	4.502	0.382	2.907 0.153 16.054
Economic status			18.851	9.605	0.998	1.538 0.118 2.312
Hearing services			1.099	1.826	0.547	3.000 0.084 107.447
Distance to facility			0.018	0.073	0.810	1.018 0.882 1.175
Level of facility			6.225	3.207	0.998	50.428 0.740 63.808

*Significant.

Table 5: Multivariate analysis for factors influencing utilization of maternal healthcare services.

Parameters	Variables and categories	N	%	Used maternal healthcare services			
				df	P value	OR	95% CI
Predisposing factors	Marital status						
	Single	19	22.6	1	0.000	2.273*	(2.044-8.788)
	Married	64	76.2	1	0.079	2.651	(2.65-2.651)
Enabling factors	Divorced	1	1.2	ref.	ref.	ref.	ref.
	Father's occupation						
	Boda boda	7	6.9	1	0.781	1.421	(0.120-16.866)
	Business	13	12.7	1	0.230	2.750	(0.528-14.321)
	Farmer	17	16.7	1	0.002	15.913*	(2.652-95.494)
	Fisherman	26	25.5	1	0.391	1.918	(0.433-8.508)
	Vender	3	2.9	1	0.268	5.941	(0.254-138.996)
	Nurse	2	2.0	1	0.998	2.066	(1.855-4.130)
	Teacher	1	1.0	1	-	2.048	(2.048-2.048)
	Unemployed	33	32.4	ref	ref.	ref.	ref.

*Significant.

DISCUSSION

Our study revealed that 37.3% of the mothers were having an age of 20–24 years. This finding was in concurrence with similar studies in low-income countries.^{21,22} It's however also found not to be consistent with another study by Dapaah et al.²³ According to the study findings 78.7% of the respondents were married and they were the most that participated in the study. This was found to be in concurrence with studies in low-income countries.²³⁻²⁶

In this study marital status had a higher likelihood to influence the use of maternal healthcare services at the fishing landing sites which was in concordance with a study by Ziblim et al that found a strong connection between marital status and maternal health service utilization, however inconsistent with other similar studies by Ndugga et al and Somefun et al who found that statistically age, level of education, number of children were influencing predisposing factors for the mother's use of maternity care services.²⁷⁻²⁹ The difference in the factors for utilisation of maternal healthcare services could be attributed to different study area, different population and difference in the methodologies used in the studies. Single women were twice more likely to use maternal health services than those who were divorced which agrees with research done in Malawi.⁷ Single women have more power over health-related decisions, which have an increasing impact on the use of maternity healthcare.^{16,30,31} It is assumed that the association between intimate partner violence and autonomy explains why women who divorce are more

likely to have suffered abuse and violence in their relationships. According to research by Stewart and Hall, abused women frequently lack autonomy, travel flexibility, and economic independence, all of which are associated with lower maternity healthcare usage.⁷ According to studies, women who had experienced violence at some point in their lives were less likely to seek maternity care services.³²⁻³⁴ The outcomes corroborate these conclusions even more.

Father's occupation influenced the use of maternal healthcare services at the fishing landing sites which was in concordance with a study by Tsegay et al.³⁵ This result did not align with a research in Ethiopia who found women's occupation, walking time to facility and household income to have influence on their utilisation of maternal healthcare services.²⁴ The difference in the factors for use of maternal healthcare services could be attributed to different study area and difference in the methodologies used in the studies. Women whose husbands were farmers were had a sixteen times higher likelihood of using maternal healthcare services than women whose husbands worked other jobs or were jobless. Since farming and fishing are the most common male occupations in these rural communities, those who work in farms may have had more time to encourage their wives to seek out maternal health services because these activities may be less interesting and involve fewer absences from home since the men leave for the farms in the morning and return home around mid-morning. For the men that are unemployed they don't have enough finances to support their women to go for maternal

health services since they stay home with no work, resting from overnight drinking and others going to the trading centres for gambling thus no time to move with their women for the maternal health services. Additionally, because farmers often enjoy a higher standard of living than jobless spouses, they are better able to bear the cost of using the service. Also those whose husbands are fishermen, claim their men are not always available when needed since they are always go for faraway island fishing and even spend months their minus providing any support to their families.

Our study was limited in several ways. Due to the women participants' self-reporting of all data and the lack of triangulation with other sources, bias may have occurred. Additionally, the study did not account for institutional elements that impact woman's health-seeking behaviours, such as the actions of healthcare practitioners and the availability and calibre of services. Furthermore, information bias may have been induced by the extended recollection interval.

CONCLUSION

Although the free maternal health policy has acknowledged the extent of usage of maternal healthcare services, adequate utilisation has not yet been reached since certain women continue to face obstacles in accessing the service at the landing locations due to a variety of socio-demographic and personal variables. Thus, in addition to the policy, upstream strategies like social support for ANC use should be given to less fortunate women in order to ensure adequate use of maternal healthcare services in Ugandan landing sites. Additionally, maternal services that are not covered by the policy should be re-evaluated in order to relieve pregnant mothers of the costs associated with receiving the services. The education of fathers is crucial in order to facilitate their women's use of maternal healthcare services, such as antenatal care and postnatal care, and to meet the WHO's minimum requirement of four prenatal care visits as well as the sustainability development goals 3 and 5.

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