

Health facility factors and uptake of maternity services by women of child-bearing age attending medium-rated health facilities in Upper Eastern, Kenya

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Abstract

Background: Maternity services uptake is a step towards attaining the Sustainable Development Goal on maternal health improvement. However, access to maternity services in Sub-Saharan Africa still remains a challenge. In Kenya, majority of the maternity services are utilized in highly-rated hospitals, with medium-rated hospitals witnessing low utilization of maternity services.

Materials and Methods: A cross-sectional descriptive research design was adopted. The study was conducted in a select Sub-County in Upper Eastern Kenya. The target population was 51, 770 women of child-bearing age. The sample size for the study was 110 women. A questionnaire that was self-administered was used in data collection. Analysis was through descriptive statistics which consisted of frequencies and percentages and through inferential statistics which consisted of Chi-Square statistic.

Results: 87.3% (frequency=96) of the respondents indicated that the infrastructures of the select health facilities were well-constructed; 70.9% (frequency=78) indicated that the select health facilities were easily accessible; 63.6% (frequency=70) indicated that the select health facilities were politically managed; 65.5% (frequency=72) indicated that the select health facilities conducted awareness campaigns on maternal and child-health care. According to 38.2% (frequency=42) of the respondents, the quality of maternity services in the select medium-rated hospitals is low; 36.4% (frequency=40) indicated that the maternal services quality is moderate. 41.8% (frequency=46) of the respondents do not utilize maternal services from the select medium-rated hospitals in Upper Eastern Kenya; 31.8% (frequency=35) rarely utilized maternity services. The chi-square findings showed that local politics ($\chi^2=11.4635$, $p\text{-value}=.0095$), awareness campaigns ($\chi^2=11.2715$, $p\text{-value}=.0103$) and quality of services ($\chi^2=27.0548$, $p\text{-value}=.0001$) had a significant association with utilization of maternal services.

Conclusion: From the findings, it can be concluded that local politics, awareness campaigns by the provider and quality of maternity services are the health-facility related factors influencing uptake of maternity services.

Key Words: uptake, maternity, child-bearing, medium-rated, health-facility

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I. Introduction

Globally, about 80 percent of pregnant women have access to maternity services.¹ The report by¹ further states that uptake of maternity services is a step towards achievement of the Sustainable Development Goals (SDG), specifically the SDG on improving maternal health. In addition, more women are able to prevent short and long-term maternal disabilities and illnesses such as fistulas, infertility and depression. However, according to,¹access to maternity services in Sub Saharan Africa (SSA) remains a challenge. Only one fifth of pregnant women in SSA have access to maternity services. In addition,²report indicates that in Kenya an estimated 62 percent of expectant mothers seek maternal care during the course of their pregnancy. The report further indicates that majority of these deliveries occur in level four and level five health facilities (highly rated hospitals) and in private health facilities. Less than twenty percent (20%) of these deliveries occurs in level three (medium-rated) and level two (lowery-ranked) health facilities.

According to ³report, in Upper Eastern Kenya 40 percent of pregnant women accessed maternity services in 2014. According to⁴ 26 percent of pregnant women in study's location have access to free maternity services. Further, data provided by,⁴showed that 65 percent of deliveries in the study's location occurred in private health facilities, 34 percent occurred in highly-rated health facilities and less than one percent (0.3%) of the deliveries occurred in medium-rated health facilities within the study location.

The statistics are indicative that many women in Kenya still face challenges when accessing maternity services. This is despite the Government of Kenya providing free maternity services in government hospitals and investing heavily in the development of health care infrastructure. Through regional development funds, regional hospitals, specifically the medium-rated hospitals have been constructed. However, previous studies such as^{5,6} reveal mixed reasons for the low uptake of maternity services in Kenya. Therefore, it would be worth to conduct a study to investigate the factors related to uptake of maternity services by women in Kenya. Specifically, the study will focus on hospital related factors that influence uptake of maternity services by women in select medium-rated hospitals located in Upper Eastern Kenya.

II. Materials and Methods

Research Design: A cross-sectional descriptive research design was used.

Study Location: The study was conducted in a select Sub-County in Upper Eastern Kenya.

Target Population: 51, 770 women of child-bearing age.

Sample Size: 110 women of child-bearing age computed using Slovin's formula.

Inclusion Criteria: Women aged 18-49 years who had sought maternal care at medium-rated health facilities at the select Sub-County in Upper Eastern Kenya.

Exclusion Criteria: Women of reproductive age (18-49 years) who sought other health services at the select medium-rated hospitals were excluded. Women aged above 49 years who sought maternal services and child-health services were also excluded.

Data Collection Tools: A questionnaire that was self-administered was used in data collection.

Statistical Analysis: After data collection, data was cleaned, coded and entered into SPSS version 25.0 for analysis. Analysis was through descriptive statistics which consisted of frequencies and percentages and through inferential statistics which consisted of Chi-Square statistic. A 5% level of significance was set for the inferential statistics.

III. Results

Profile of the respondents

Majority of the respondents (frequency=83, percent=75.4%) were in the age brackets 26 to 40 years. Most of the women (frequency=64, percent=58.2%) had attained post-primary level of education. From the results in Table 1 below, majority of the women in child-bearing years (frequency=73, percent=66.4%) were married. The monthly income for most of women who participated in the study (frequency=75, percent=68.2%) was in the range of Kenya Shillings 20, 000 and below (see Table 1).

Table 1: Respondents' Profile

Profile	Frequency	Percentage (%)
Age in years		
<20 years	1	.9
20-25 years	18	16.4
26-30 years	22	20.0
31-35 years	24	21.8
36-40 years	37	33.6
41-45 years	5	4.5
Above 45 years	3	2.7
Education Level		
Primary	46	41.8
Secondary	37	33.6
College	20	18.2
University	7	6.4
Marital status		
Married	73	66.4
Single, divorced, widowed	37	33.6
Monthly Income (in Kenya Shillings)		
Below 1, 000	1	0.9
1, 000-10, 000	46	41.8
10, 001-20, 000	29	26.4
20, 001-30, 000	20	18.2
Above 30, 000	14	12.7

Health Facility Factors Related to Uptake of maternity Services

The study's main objective sought to assess the health facility related factors that were deemed to affect uptake of maternity services most in the study location. The health facility factors that were considered for this

study included infrastructure, location of the facility, local political landscape, and awareness campaigns by the health facility. The findings revealed that majority of the respondents as indicated by 87.3% (frequency=96) were of the opinion that the infrastructures of the select health facilities were well-constructed. Another majority indicated by 70.9% (frequency=78) indicated that the select health facilities were easily accessible while 63.6% (frequency=70) indicated that the select health facilities were politically managed. In terms of the health facilities offering awareness campaigns on maternal care, 65.5% (frequency=72) indicated that the select health facilities conducted awareness campaigns on maternal and child-health care. According to the findings, 38.2% (frequency=42) the respondents are of the opinion that the quality of maternity services in the select medium-rated hospitals is low; 36.4% (frequency=40) are of the opinion that the maternal services quality is of moderate quality while 25.4% (frequency=28) opine that the maternal services are of high quality (see Table 2).

Table 2: health Facility Factors

Facility Factors	Frequency	Percentage (%)
Infrastructure		
Poorly developed	14	12.7
Well-constructed	96	87.3
Location (accessibility)		
Not easily accessible	32	29.1
Easily accessible	78	70.9
Local Politics		
Facility not politically managed	40	36.4
Facility politically managed	70	63.6
Awareness campaigns		
Facility does not conduct awareness campaigns	38	34.5
Facility conducts awareness campaigns	72	65.5
Quality of services		
Low quality	42	38.2
Moderate quality	40	36.4
High quality	28	25.4

Frequency of Maternal Services Uptake

The respondents were required to indicate whether they utilized the maternity services offered in the select hospitals. The results demonstrate that 41.8% (frequency=46) of the respondents do not utilize maternal services from the select medium-rated hospitals in Upper Eastern Kenya; 31.8% (frequency=35) rarely utilized maternity services, 16.4% (frequency=18) often utilized and 10.0% (frequency=11) frequently utilized the services (see Table 3).

Table 3: frequency of Utilization of Maternity Services

Utilization rate of maternal services	Frequency	Percentages (%)
Not at all	46	41.8
Rarely	35	31.8
Often	18	16.4
Frequently	11	10.0

Association between Facility Related Factors and Utilization of maternity Services

Through the use of Chi-Square test statistic, the relationship between facility-related factors and utilization of maternity services was assessed. This was achieved through cross-tabulation between the facility-related factors and the frequency of maternal services utilization. From the chi-square findings, local politics ($\chi^2=11.4635$, p-value=.0095), awareness campaigns ($\chi^2=11.2715$, p-value=.0103) and quality of services ($\chi^2=27.0548$, p-value=.0001) had a significant association with utilization of maternal services. On the other hand, infrastructure ($\chi^2=2.6859$, p-value=.4426) and location of the facility ($\chi^2=4.2227$, p-value=.2384) had no significant association with utilization of maternal services in the select medium-rated hospitals (see Table 4).

Table 4: Chi-Square Test of Association between Health Facility Factors and Utilization of Maternity Services

Hospital-related factors		Utilization of maternal services				Chi-Square
		Not at all	Rarely	Often	Frequently	
Infrastructure	Poorly constructed	6	3	2	3	$\chi^2=2.6859$, p-value=.4426
	Well-constructed	40	32	16	8	
Location	Not easily accessible	17	10	2	3	$\chi^2=4.2227$, p-value=.2384
	Easily accessible	29	25	16	8	

Local politics	Facility not politically managed	18	12	2	8	$\chi^2=11.4635$, value=.0095	p-
	Facility politically managed	28	23	16	3		
Awareness campaigns	Facility does not conduct awareness campaigns	18	9	3	8	$\chi^2=11.2715$, value=.0103	p-
	Facility conducts awareness campaigns	28	26	15	3		
Quality of services	Low quality	28	7	4	3	$\chi^2=27.0548$, value=.0001	p-
	Moderate quality	12	20	4	4		
	High quality	6	8	10	4		

IV. Discussion

From the majority of the responses, the select medium-rated hospital was well-constructed, easily accessible and conducted awareness campaigns. The fact that the select hospitals are well constructed disagreed with⁷ who noted that health facilities in Kenya are characterized by inadequate equipment, inadequate infrastructure and understaffing. In terms of infrastructure, the hospitals have attracted funding from various levels of government funding ranging from national government to county government. The focus for the government bodies in the recent Free Maternity Services campaigns has been construction of hospital facilities to host the increasing number of women seeking maternal care. Ease of access to health facilities in Kenya is high owing to the current government's investment in road infrastructure making government facilities, including hospitals, to be easily accessible.⁸ The health facilities are also located close to other government facilities such as administration offices with such localities being characterized with tarmacked roads that make the residents easily access government services.⁸ In terms of awareness campaigns, the government has been striving to achieve the SDGs, specifically on maternal care, and has thus been conducting campaigns, both in the print and electronic media, to sensitize citizens on the need to utilize maternity and child-health services.⁹

The inferential statistics found a significant relationship between political atmosphere and utilization of maternity services. This concurred with¹⁰ who found that the political atmosphere in a community influenced the extent to which a project would develop inside the community. Politics also relate to the leadership in an initiative thus its overall success. If the current political leadership do not promote an initiative such as the free maternal health services offered by the government, then their utilization may be low. According to¹¹ health initiatives in many nations throughout the world – including Kenya – are heavily influenced by political considerations and agendas.

A significant association was also found between awareness campaigns and utilization of maternity services. Awareness campaigns by the provider inform the patients of their rights and also enable the community to review their performance.¹² This means that the provider is in a position to offer improved services which is a prerequisite for increased utilization of health services.^{12,13} added that awareness campaigns inform targeted beneficiaries of expected benefits such as safe delivery; this also increases uptake of health services in hospitals. The significant association between quality of care and utilization of maternity services aligned with¹⁴ who noted that quality of care in hospitals with regard to food quality, ward services such as bed quality and general quality of maternal care significantly affects the decision by women to utilize maternity services.

V. Conclusion

From the findings of the study, it can be concluded that the utilization of maternity services in medium-rated hospitals is low. It can also be concluded that local politics, awareness campaigns and quality of services have a significant association with utilization of maternal services.

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