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Emily Chesumei, Dr. Joseph Mutai and Dr. Beatrice N. Kiage

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SATISFACTION LEVELS OF FREE MATERNITY SERVICES AT KABARNET COUNTY HOSPITAL

[1*]Emily Chesumei
[1]Corresponding Author's Email: ebungeik@gmail.com
[*]Box 8657 -00200, Nairobi, Kenya

[2]Dr. Joseph Mutai
Kenya Medical Research Institute
Email : joemutai@yahoo.com
Box-54840-00200, Nairobi, Kenya

[3]Dr. Beatrice N. Kiage
Jomo Kenyatta University of Agriculture and Technology
P.O BOX 62,000 -00200, Nairobi, Kenya

Abstract

Purpose: The study sought to determine satisfaction levels of mothers regarding maternity services accorded to them.

Methods: This was a cross sectional study conducted at Kabarnet County Hospital among women attending maternal child health clinic who had a birth within three years from the time of the study. A sample size of 379 was obtained using Cochran's formula and systematic random sampling. Ethical approval was obtained from Kenyatta National Hospital/ University of Nairobi ethical review committee. Data was collected through structured questionnaires and analyzed using SPSS version 20. Chi square tests were done to determine associations between various variables in the study. Results are presented in form of tables, charts and percentage.

Findings: Majority of participants had socio demographic factors which promote skilled assisted deliveries. Staff competency was noted to be the most satisfactory factor rated at 91.1% while insufficient materials and equipment was the most unsatisfactory by 30.2% cumulatively. Significant differences on the condition of mother and baby depending on delivery assistant was noted with Chi-Square test of 38.7 and 32.4, P value 0.029 and 0.020, respectively.

Recommendations: Maternity facilities should be more functional with sufficient equipment, materials, infrastructure and competent staff. Nurse/midwifery role in maternal services requires recognition hence training and capacity building.

Keywords: *Maternal mortality rate, skilled assisted deliveries, free maternity services*

1.0 INTRODUCTION

1.1 Background of the Study

Poor maternal health trends have become persistently rampart especially in developing countries. In 2015 about 830 women died every day due to complications of pregnancy and child birth, most of them were in low-resource settings and could have been preventable [1]. Infact, the risk of a woman dying from maternal-related causes during her lifetime in a developing country is about 33 times higher compared to her counterpart in a developed country [1]. This could be attributed to low number of skilled attendance during delivery, poor quality of maternity services and challenges of accessibility to maternity facilities.

There is need for added vigilance towards halting high maternal mortality trends and quality services of a skilled attendant at birth would be significant in this course. A target of at least 90% skilled assisted births (SAB) worldwide by 2015 was included in millennium development goal (MDG) 5 [2]. Developed countries have high SAB at 99.5%, whereas least developed countries are at 35.3% with Africa still having fewer than 50% SAB [2, 3]. According to Kenya Demographic and Health Survey (KDHS) (2014), there was an increase in facility deliveries in Kenya from 43% in 2008-09 to 62% in 2014 [4].

Strategies and policies have been formulated to address the incessantly high maternal mortalities. Key among them being user fee exemptions, meant to enhance skilled delivery attendance which is a fruit of a long strife towards universal healthcare coverage. It started through World Health Organization's (WHO) "Health for All" initiative with a belief that all people should have equitable access to health services without risk of financial ruin or impoverishment [5]. In fact, a high out of pocket expenses on maternal health services in Sub Saharan African countries has been associated with high maternal mortality rate (MMR) [6]. It has been found that user fees caused exclusion, diminished uptake of services and made bad maternal outcomes worse [7].

User fee exemption has been popularly used globally and is an effective single strategy towards improving delivery of health services in developing countries [8]. However, implementation without complementary preparation makes it a flop, as it often leads to increased utilization without corresponding increase of resources hence compromised quality of services and reduced client satisfaction [9; 10; 11]. Yet, quality maternity services is the goal, because it guarantees better maternal outcomes and improves uptake of skilled attended deliveries. Quality of services can be examined from analyzing provision of services at facility level or through clients' feedback [12]. Clients' experience of services obtained moulds their perception and can be expressed through their satisfaction levels on various facets of care.

Health is paramount for any individual, society or country and correlates with productivity and development, thus a sector to invest in without reservations [8]. The Government of Kenya, in a bid to address poor maternal health trends instituted Free Maternity Services (FMS) in June 2013. It aimed at increasing equitable access to maternal health services since user fees were a deterrent and ultimately resulted in increased SAB [13]. It was however hurriedly implemented without written strategy and adequate preparation to accommodate the anticipated increase of maternity clients. Services would likely worsen given that public health facilities already had numerous challenges including; unmet standards, resource insufficiency, inadequate referral systems and constrained access [14; 15; 16]. Furthermore, Kenya's financial allocation to health was often below the recommended 15% of total government spending in Abuja declaration [17; 18]. This study therefore sought to establish the satisfaction levels of mothers attending maternal child health (MCH) services at Kabarnet County Hospital (KCH) on delivery services accorded to them.

2.0 METHODS

2.1 Study Area

The study was done at the MCH clinic of KCH, Baringo County. The County has 53.5 % skilled attended deliveries which is lower than the national average of 62% [4]. KCH is located in Kabarnet town which hosts the County Government. It is a referral hospital for the entire county and serves the residents of Kabarnet location with the main maternity facility and MCH clinic. Kabarnet location is largely a rural setting with a population of about 24,661 [19]. It is on Tugen hills, a rugged terrain, characterized by hills, cliffs and valleys.

2.2 Study Design

The study was a cross sectional, facility based study, which utilized both quantitative and qualitative data collection methods. Quantitative data was obtained through structured questionnaires administered to mothers at the MCH Clinic, where immunization services, mandatory to all children are offered. Qualitative data was obtained through Focused Group Discussion (FGD) and key informant's interview. The use of mixed methods increased the breadth and depth of understanding the research objective while offsetting each method's weaknesses [20].

2.3 Study Population

The study was conducted among women attending MCH clinic at KCH who had a birth within three years prior to the time of study.

2.4 Sampling

A sample size of 379 was derived using Cochran's formula (1977) and Kenya's estimated proportion of SAB available at the time of the study [21; 4].

2.5 Data Collection Tools

A structured questionnaire was administered to the participants capturing age, education level, parity, marital status, delivery place and associated factors, delivery assistant and experiences of services accorded. The questionnaire was designed in English, translated and administered in Kiswahili language. Qualitative data was collected through Focus group discussions (FGD) and key informant interview. FGD was conducted amongst a group of eleven mothers obtained randomly from the study population but who did not participate in filling the questionnaire. Participants were identified using numerical figures 1 to 11. A discussion guide was used, which focused on satisfaction of maternity services accorded during delivery. Interviews were conducted on the key informant, who was the hospital superintendent, head of maternity services and was the only obstetric gynecology specialist. The issues captured in the interview included financial support from government for free maternity services at the facility, capacity of hospital to handle free maternity services program and coping mechanisms adopted by the facility in delivery of free maternity services.

2.6 Data Collection Procedures

A sample interval of three was obtained by dividing sample frame (estimated number of patients per day times the number of study days) to the sample size. Simple random sampling was used to pick the first participant from among the first three mothers and thereafter systematic random sampling was used, where every third mother was sampled until a sample size of 379 was attained. If a sampled mother did not meet inclusion criteria the next mother was sampled. The sampled mothers were interviewed using Kiswahili translated structured questionnaire after receiving the hospital services.

2.7 Ethical Considerations

Ethical approval was obtained from Kenyatta National Hospital/ University of Nairobi Ethical Review Committee. Permission was sought and obtained from the hospital's administration to collect data within the hospital. Mothers, who met the study criteria, were requested to voluntarily sign informed consent or place a thumbprint, then enrolled into the study. Women whose condition made them unable or uncomfortable to participate were exempted. Participants were assured that none of their names would appear in any report and that all their responses would be kept in confidence.

2.8 Data Analysis

Data from the questionnaire were entered into Access database, cleaned then exported to Statistical Package for Social Sciences version 20 for analysis. Differences in proportions were compared using the Pearson's Chi-Square test for categorical variables. Results are then presented in tables, percentage and charts. Data from FGDs and key informant interviews were in notes form then were manually analysed based on content and themes developed from responses in line with the study objectives. Its findings are presented in verbatim form.

3.0 RESULTS

3.1 Socio demographic factors

A total of 379 women participated in the interview. Majority of the respondents [86.6%] were of the recommended reproductive age of 21 to 35 years. About three quarter had secondary education and beyond, 73.1% were married and only 19.6% had a parity above seven (Table 1).

Table 1: Summary of socio-demographic factors

Characteristic	Number	Percentage (%)
Age		
15-20 years	29	7.7
21-25 years	120	31.7
26-30 years	143	37.7
31-35 years	65	17.2
36-40 years	22	5.8
Level of education		
Lower primary school	12	3.2
Upper primary school	74	19.5
Secondary school	163	43
Tertiary	124	32.7
Marital status		
Married	277	73.1
Single	80	21.1
Divorced	6	1.6
Separated	16	4.2
Parity		
1-3	123	32.5
4-6	165	43.5
7-9	73	19.3
>10	1	0.3

Delivery place and assistant

Government maternity facilities were the most utilized for delivery by 95.8% participants (Figure 1). 97.4% of the respondents attended ANC, 89.4% had a birth plan and 88.4% lived within seven Km from a government maternity facility. 78.8% of the mothers were involved in deciding place of delivery, 99.5% were generally satisfied with maternity services offered and 96.8% desired to have their next delivery in a hospital (Figure 2). Nurses assisted 43% of the deliveries while doctors 17.7%, medical students assisted 30.9%, and nurses with medical students did 4.5% and nurse with doctor 1.6% (Figure 3).

3.2 Satisfaction with maternity services

Ratings of different aspects of maternity services were done by clients using five point likert scoring scale of: very good, good, fair, poor, and very poor. Very good and good ratings were

considered satisfactory while poor and very poor as unsatisfactory. The derived results were presented in proportions (Figure 4). The aspects that lead with satisfactory rankings were; staff competence at 91.1%, staff courtesy at 88.2% and availability of medicine at 78.8% of participants. The most unsatisfactory ratings were; availability of materials and equipment each by 15.1% and visual privacy by 7.7 % participants. The least rated as unsatisfactory were; building structure, lighting and staff courtesy by 0.8%, 1.1% and 1.3% participants respectively (Figure 4).

3.3 Condition of mother versus delivery assistant

The condition of mothers soon after delivery as per the respondents' perception was satisfactory by 84.4% of participants, fair by 10% and unsatisfactory by 1.5% (Table 2). There was a significant difference on the condition of the mother depending on who delivered them X^2(24, N=379) 38.7 p = 0.029 (Table 4).

Table 2: Delivery assistant and condition of mother

	Condition of mother					
Delivery assistant	**very good**	**good**	**fair**	**poor**	**very poor**	**Total**
Nurse	40	107	14	1	1	163
Doctor	18	038	10	1	0	067
Medical student	27	081	08	0	1	117
TBA	01	003	01	0	0	005
Relative/neighbor	01	002	01	0	0	004
Nurse and medical student	04	010	01	2	0	017
Nurse and doctor	00	003	03	0	0	006
Total	**91**	**244**	**38**	**4**	**2**	**379**

n= 379

3.4 Condition of baby versus delivery assistant

The babies seemed to have fared better than the mothers. Majority (93.4%) of the babies born were in a satisfactory condition after delivery while 5.3% and 1.3% were in fair and poor conditions respectively. No baby had a very poor condition (Table 3). There was a significant difference on the condition of the baby depending on delivery assistant X^2(18, N=379)32.4, p=0.020 (Table 4).

Table 3: Delivery assistant and condition of baby

Delivery assistant	Condition of baby				Total
	very good	good	fair	poor	
Nurse	59	95	7	2	163
Doctor	22	40	3	2	067
Medical student	49	61	7	0	117
TBA	00	04	1	0	005
Relative/neighbor	01	01	2	0	004
Nurse and medical student	04	12	0	1	017
Nurse and doctor	01	05	0	0	006
Total	**136**	**218**	**20**	**5**	**379**

***n*=379**

Table 4: Associations of delivery assistant and condition of mother or baby

Description	Pearson Chi-Square value	df	Asymp. Sig. (2-sided)	N
Delivery assistant / Condition of mother	38.705	24	0.029	379
Delivery assistant / Condition of baby	32.416	18	0.020	379

***n*=379**

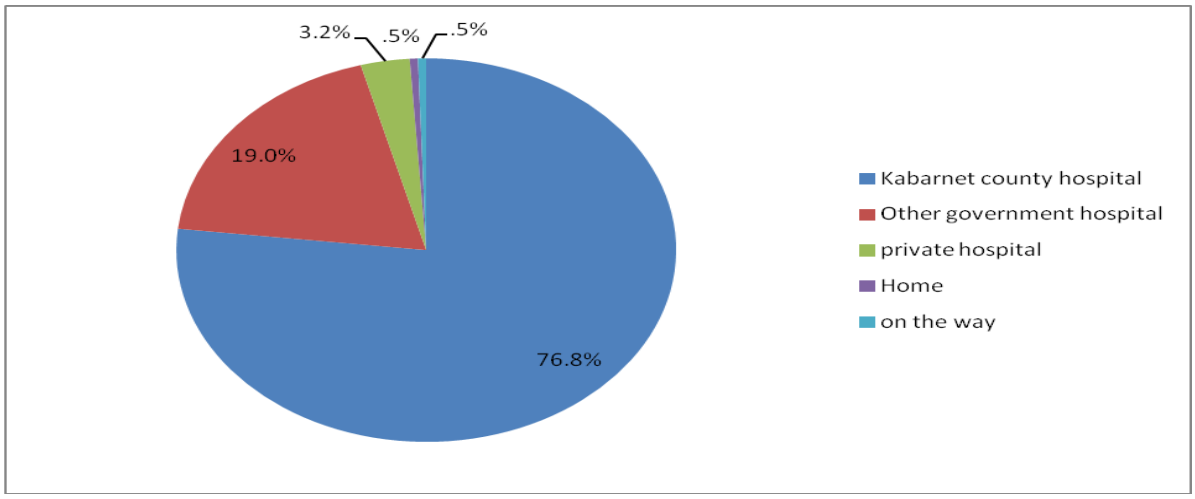

Figure 1: Place of delivery

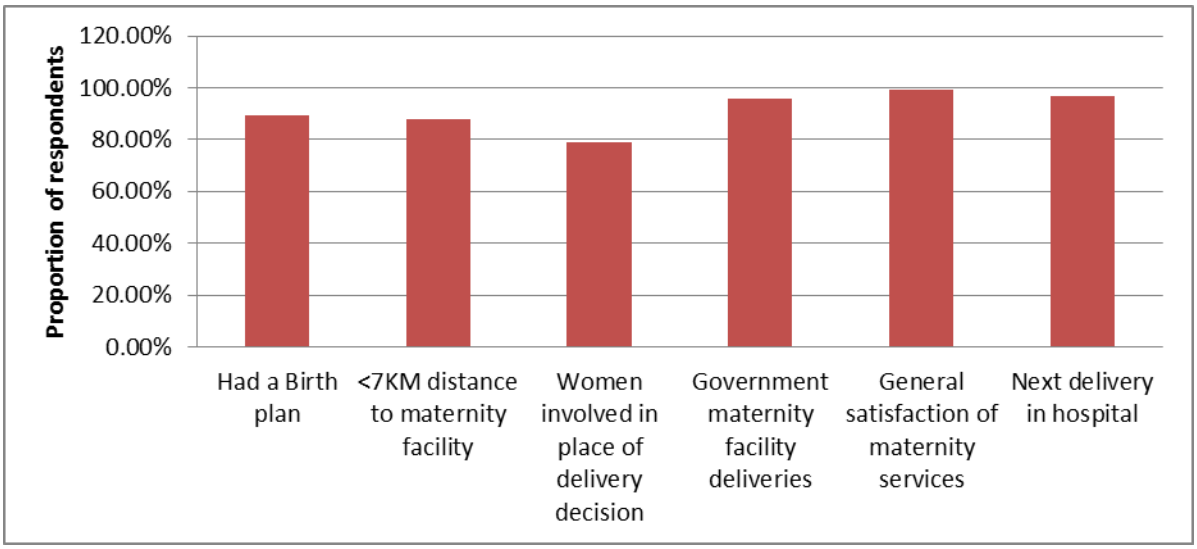

Figure 2: Delivery place factors

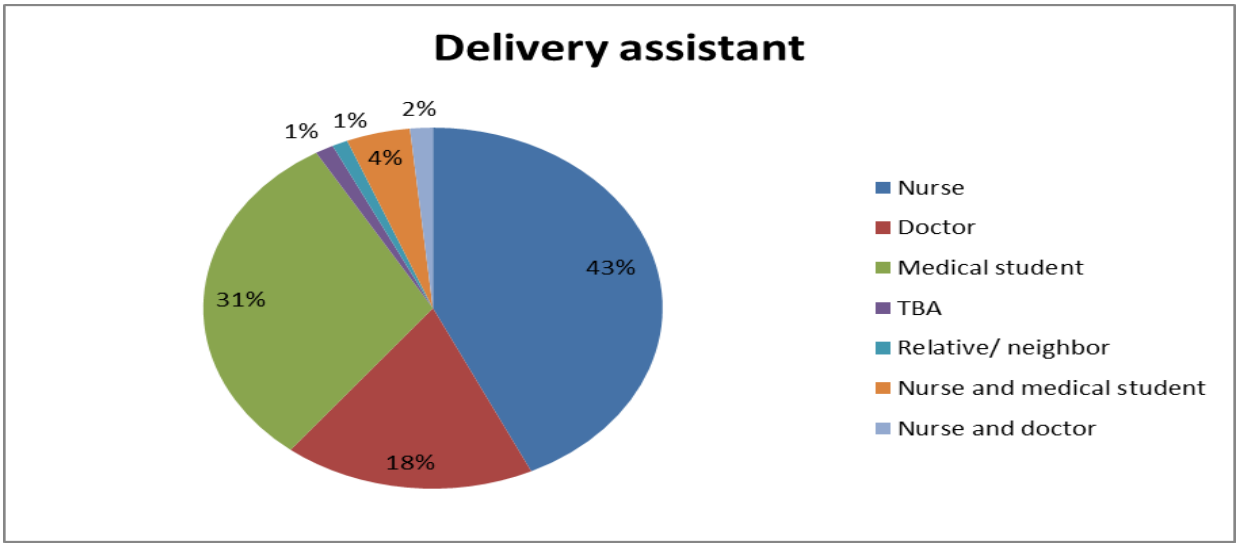

Figure 3: Delivery assistant

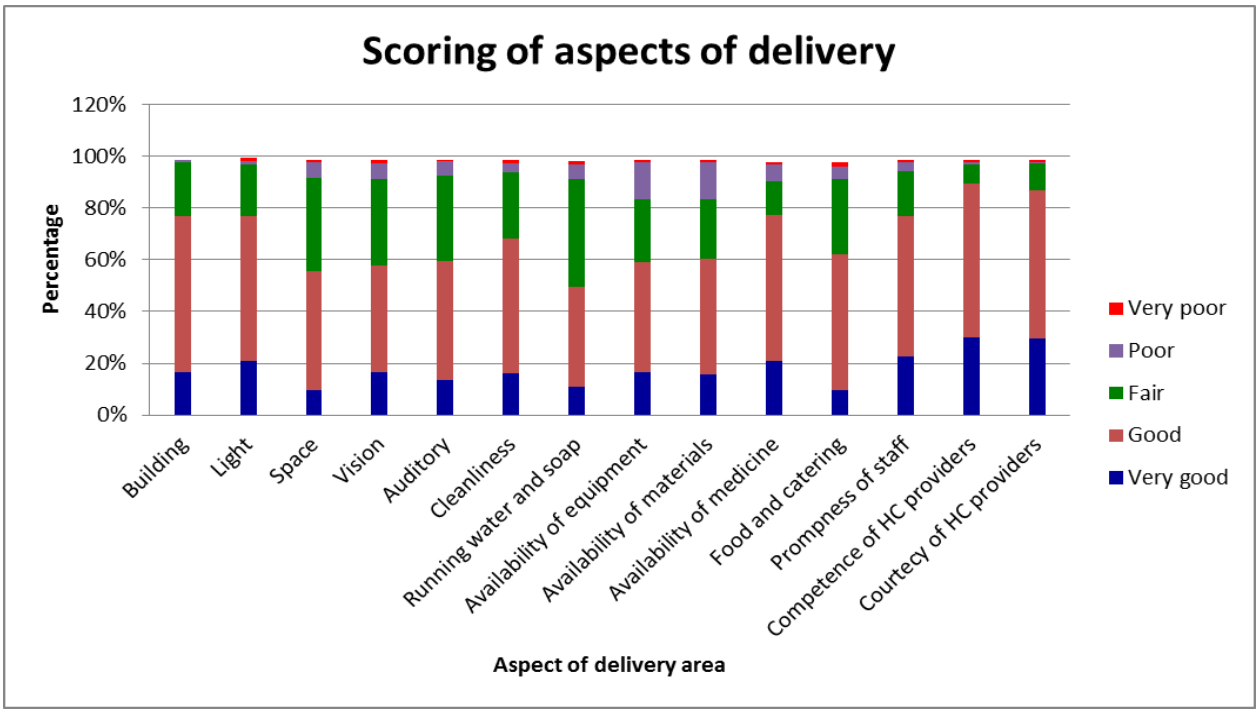

Figure 4: Scoring aspects of service delivery

3.5 Qualitative results

Qualitative data was obtained through a Focused Group Discussion (FGD) among the mothers and interview of key informant (KI). FGD participants (P) were serialized for identity from P1 to P11. They contributed openly on their experience of FMS and their attractions, challenges and barriers to SAB. FGD participants' distribution by age and parity was noteworthy as the older women and those with higher parity had more experience unlike the first time and younger mothers (Figure 5: Distribution of participants by age and parity). Key informant's interview was conducted on the hospital superintendent who was also the head of maternity services. All obtained data was examined, categorized into themes and coded (Table 5).

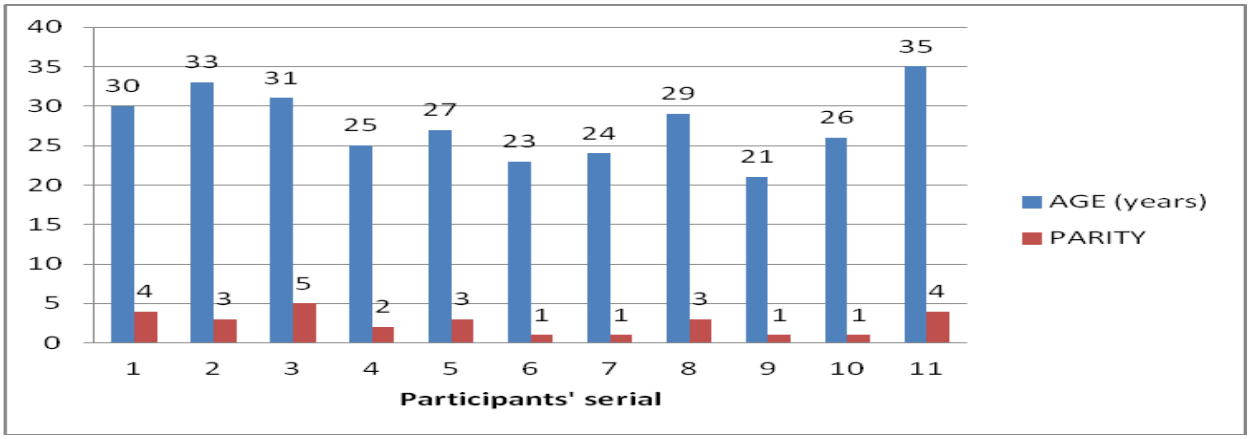

Figure 5: Distribution of participants by age and parity

Table 5 Factors related to uptake of maternity services

Main Themes	Sub Themes	Main Responses
Uptake of SAB	proportion	*"There was about 30% increase in number of mothers using maternity services after FMS was introduced" (KI)*
Factors related to uptake of maternity services	Benefits and challenges of Free Maternity Services	*"We are thankful the maternity staff here are good and equipment for delivery are available" (FGD)* *"FMS has helped a lot, We have no more stress" (FGD)* *"There was hasty implementation hence inadequate preparation causing big financial gaps" (KI) "With FMS there is even less funds for running the hospital unlike previous years (KI)* *"The staff look overwhelmed with work, running here and there, the staff sometimes have to cut short attending to you to rush to another more needy mother" (FGD)* *"Beds and supplies are not enough for the large numbers of mothers we get, sometimes even basic materials are insufficient, hence clients assist fill that gap by bringing their own" (KI)* *"On admission to maternity ward, I have to bring things like; blankets, basin, utensils and toiletries" (FGD)* *"The ward is not that clean, they need to improve, especially bathrooms and toilets" (FGD)* *"Food served to mothers is unpleasant and most us had our food brought by our relatives" (FGD)* *"We are so many in the ward and sometimes people have to share beds" (FGD)*

Outcome of maternity services	quality of delivery Services with FMS/SAB	*"They offer good services, the doctors know their work" (FGD)* *"We like services offered by the students" (FGD)* *"Maternity is not like it was before, quality of care is going down, it is even better to pay" (FGD)* *"They quickly discharge you soon after a delivery even before you recover well" (FGD)* *"sometimes patients are not managed well, especially about students assisting in delivery, I don't like that, I fear they might do something wrong" (FGD)*

3.6 DISCUSSIONS

3.6.1 Mothers' satisfaction on delivery services accorded

Measurement of quality of services can be evaluated from the facility's conformity to conventional standards or from clients' satisfaction of services as per their experience [12]. Clients' satisfaction levels give in-depth feedback on their experiences in the hospital facilities, however subjective they maybe, nevertheless, it could be a valid evaluation of quality of services [12]. This study found out that three quarter of the participants chose place of delivery due to the good reputation of the maternity facility. A finding similar to a study in Nepal where high utilization of the public hospital maternity services was associated with its reputation and perceived higher technical quality than birth centers [23]. 'Good' connotes a level of quality requirements for safe delivery being met or established success rates. This is contrary to traditional methods which are often times, trial and error especially with complications. This feedback exemplifies acceptance of hospital services and implies that the expectations of the women were met. Such is the confidence women need for hospital services and it promotes utilization of skilled assisted deliveries. It is a challenge to the government and health professionals to maintain quality of services and hence prevent hospital based maternal mortalities. Furthermore the government from such success should seek to proliferate such services to all parts of the country, making it physically accessible to all.

The study area lacked alternative conventional maternity facilities like is the case for many rural and peri-urban areas in Kenya. This could have put the facility under pressure to perform as the whole community depends on it regardless of socioeconomic status, hence striving towards good standards. However, there is a danger of overstretched resources due to the large and wide range nature of clients which often go beyond the hospital's capacity to handle. The good rating could also be because clients do not have comparative image of other maternity facilities hence lower expectations. It also means that such kind of facilities lack competition and learning

opportunities from other providers. There was more than 90% general satisfaction on maternity services accorded to participants (Figure 4). This is a measure of affirmation of FMS as most deliveries were in government facilities. This could also mean that services rendered at these facilities were worthwhile despite the limited options. One respondent observed;

"*Even if you wanted to deliver elsewhere, there are no other maternity hospitals nearby*" (FGD)

The high satisfaction levels corresponds fairly to comparative study findings of some developed countries where New Zealand had 89% participants with satisfaction on overall care while Canada had 80% participants with a positive or very positive overall experience [24]. The results are also consistent with those portrayed in a study in Ethiopia that found 81.7% of maternity clients with general satisfaction [25]. The positive responses qualify that services are good or that clients were more inclined to commending rather than criticizing. Therefore, the negative highlights however minimal carry weight. Contrary to this kind of positive feedback, a Nairobi informal settlements study, had findings of government hospitals having the highest dissatisfaction by 24% participants compared to 14% of private facilities in the informal settlements, while a mission hospital received the highest satisfaction but was more costly and affordable to a few [26]. This detour could be due to the high population in informal settlements of urban areas, stretching the hospital's resources beyond sustainable limits.

The aspects with the highest satisfactory scores were; staff competence and courtesy with 91.1% and 88.2% of participants. These findings correspond to those of a study in Ethiopia, where 95% of participants highlighted the helpfulness of staff, waiting time and communication as satisfactory [24]. The results are also consistent with those portrayed in a study in the United Kingdom, where 96% of the participants acknowledged being treated with respect most of the time and 87% were satisfied with labor and birth care [25]. Similarly, in Canada, 78.5% of the participants were very satisfied with the respect shown to them and 75.9% with the competence of caregivers [25].

Unlike many previous studies, the participants reported less negative encounters with the hospital staff. The findings of another study were close to this, as there only a few women with complaints about the hospital staff [27]. This corroborates ministry of health findings where staff interpersonal skills scored better than other aspects of service delivery [13]. This perception on staff maybe linked to the fact that clients place value on human touch and interaction and their cognitive abilities. This affirms the fact that human resource is a core asset of any institution. It can be attributed to hospital staff appreciating the importance of relational skills, trainings, motivation or supervision. A lot of enlightenment on human rights and professionalism could have added to this trend too. This is away from negative experiences from hospital staff that maternity clients have had to deal with, a common feature in many maternal health studies [10; 28; 29; 30]. Medical students could have also played a major role in relieving workloads and were most likely keen on applying the right skills for better grades.

3.6.1 Condition of mother and baby

The study sought to know the condition of the mother and baby after delivery according to the mothers' perception. Most of the participants reported to have been in either good condition (60.4%) or very good condition (24%) after delivery. The babies' conditions were even better with 57.5% good and 35.9% very good. On the contrary, very minimal cases of poor or very poor conditions of mothers and babies at less than 2 % were noted. This is unlike the findings of a study in Lao that had below 50% participants satisfied on the condition of the newborn and mother while as many as 32.5% were dissatisfied on the condition of the newborn and18.3% on condition of the mothers [31].

The outcome of delivery can be influenced by among others maternal and hospital factors. Maternal factors include patient's condition and stage of labor upon admission, health status, attendance to ANC and knowledge, attitude and practices relating to maternal health. Hospital factors could be mainly related to the environment, resources, competence and Knowledge, attitudes and practices of the staff [2;6].

4.0 CONCLUSIONS AND RECOMMENDATIONS

4.1 Conclusions

Positive and satisfactory expressions were more popular than unsatisfactory ones with majority of the respondents highlighting 'good services' as a reason for place of delivery. Quality of services was earnestly maintained by the hospital staff despite limited resources resulting in high satisfaction levels among the mothers. This is evident from positive feedback on staff related qualities such as, competence and interpersonal relationship. The biggest challenges that brought dissatisfactions among clients were mainly related to lack of resources and poor infrastructure. There were no alarming deterrents within the hospital or among the mothers. Free maternity services' program is therefore a great avenue for mothers to financially access skilled assisted births especially that government facilities are the most available at the grass root level. However government maternity facilities may not be equitably distributed within the country hence physical inaccessibility in some areas leading to persistent poor maternal health trends.

4.2 Recommendations

- Free maternity services having proved capacity to satisfy clients, needs to be physically accessible to all women. A ceiling of five kilometers to a facility offering emergency obstetric care would be best achieved when every government health facility offers such services and through initiatives such as mobile clinics in remote areas.
- Maternity facilities should be more functional with sufficient equipment, materials, infrastructure and competent staff.
- Nurse/midwifery role in maternal services requires recognition hence training and capacity building.

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