



International Journal of Midwifery and Nursing Practice

E-ISSN: 2663-0435
P-ISSN: 2663-0427
www.nursingpractice.net
IJMNP 2021; 4(2): 14-19
Received: 05-04-2021
Accepted: 09-05-2021

Joshua Omwenga Boraya
Research Assistant
Kenyatta University, Kenya

Jane Njenga
Master student
Kenyatta University, Kenya

Dr. Eliphias Gitonga
Lecturer, Kenyatta
University, Kenya

Dr. Onditi Maurice Kodhiambo
Lecturer, Kenyatta
University, Kenya

Corresponding Author:
Joshua Omwenga Boraya
Research Assistant
Kenyatta University, Kenya

Factors affecting satisfaction level of mothers using free maternity services in Murang'a County hospital, Kenya

Joshua Omwenga Boraya, Jane Njenga, Dr. Eliphias Gitonga and Dr. Onditi Maurice Kodhiambo

Abstract

Free maternity services initiative enables mothers to easily access skilled birth attendants in hospitals at no cost. Murang'a County referral hospital is one of the hospitals offering these services. The current study aimed at determining the factors affecting satisfaction level of mothers using free maternity services in Murang'a County hospital. Questionnaires were used to collect data from 384 mothers who had delivered in the hospital using systematic random sampling method. Duly completed questionnaires were analysed using SPSS version 24 and results presented in tables and charts. The study findings indicated that the free maternal services have reduced neonatal and maternal deaths by approximately 67.5%. The free maternity satisfaction level of the mothers was established to be high at 67.8%. In conclusion the need to maintain and sustain this initiative is worthwhile. The ministry of health ought to increase civic education to all citizens on benefits of free skilled birth attendance.

Keywords: free maternity services, Murang'a county, maternal services, maternity services, service satisfaction level

Introduction

Countries with developing economy continues to suffer from higher maternal morbidity and mortality rate. Among records indicated that 99% of the 585000 estimated cases come from the developing countries (World Health Organization, WHO, 2016) ^[1]. Recommendations by WHO indicate that appropriate care of pregnant mothers from skilled personnel's and provisions of proper maternal healthcare facilitates can prevent increase of these numbers (WHO, 2016)

The high cost of maternal services is the key factor limiting pregnant ladies from accessing skilled attendance and quality maternal services. However, in the developed countries, this is not a challenge since there are more healthcare facilities and amenities. In these developed countries insurances programmes exists that ensures people afford quality maternity care. In Ireland free policy on maternity services is provided in all public hospitals under the maternity and infant care service program (Gitobu *et al.*, 2018) ^[5].

India also took the initiative of paying prenatal service which greatly reduce infant mortality and morbidity and there was tremendous improvement such that many researchers in the field quoted India as the principal course for reduced maternal mortality globally (Mukabana & Mukaka., 2017) ^[6].

The existence of free maternal health services does not guarantee that all mothers could utilize the service or guarantee pregnant outcome or gratifications with the services. Maternal services should be a satisfactory to the expectant women to enhance their use. This has motivated world health organization to closely monitor the level of satisfactions of mothers from free maternal service (WHO, 2016) ^[9]. They receive as a quality check to improve skilled delivery outcomes.

Patient satisfaction with healthcare services is one of the measures for quality of care that promotes user's confidence in healthcare facility and the subsequent utilization of services. Patients satisfactions and dissatisfactions with healthcare services indicates their perceptions about strengths and weaknesses of the health system. Dissatisfactions of patients in Kenya has been attributed to by the cost of services. In Kenyatta National Hospital, KNH, a study found that the overall satisfaction level of respondents was 62.4% with significant association between availability of staff, facility cleanliness, availability of drugs and sharing of beds on maternal satisfaction level (Geoffrey, Kenneth, & Margaret, 2018) ^[4].

Healthcare workers unethical behaviour for instance being un-accommodative and unfriendly and mistreatments of expectant women in public hospitals are a major hindrance to optimum maternal services in Kenya (Geoffrey, Kenneth, & Margaret, 2018) [4]. During preliminary survey in hospitals in Murang'a County, it was found that numbers of mothers utilizing health facilities for free maternity services had greatly improved since the inception for free maternity services. The intention of this study was to establish the satisfaction level of the mothers with free delivery services in Murang'a County hospitals and to the identifying factor associated with satisfaction.

Methodology

This study employed cross section descriptive study approach. This approach was objective oriented since it explored the acceptance of material health service after the government introduced an initiative of free maternal healthcare policy. The study was conducted in Murang'a County referral hospital that holds 300 beds. It is a public hospital. The hospital offers the following services; rehabilitative, curative, preventive and diagnosis. Beneficiaries of these services are Kenyan population in general. The necessary data needed for this research was collected from mothers who had delivered in the hospital, who had benefitted from the material services got discharged and were ready to leave hospital. Systematic sampling technique was employed to select 384 expectant mothers at an interval of 5 (Kth) who benefitted from free maternal policy and the healthcare services respectively.

The questionnaire was pretested among 38 mothers who had delivered in Maragua sub-county hospital and were using free maternal health initiative. This was done to ensure that the questionnaire was clear, objective and understandable to the respondents. After pretesting some further refinement was done. Construct validity was achieved by subdividing the research instrument into various parts where each answered a specific objective of the study. Reliability of the tool was established using half split method and cronbach's alpha coefficients obtained was at 0.82.

Statistical package for social sciences (SPSS version 24) was used to process the quantitative data to reveal study findings. The quantitative data was first coded, sorted and then was entered into the computer for analysis. To determine the association between predictor and criterion variables, descriptive analysis was used which involved correlation analysis and fishers exact. Tables were used to present organized data.

Kenyatta university graduate school and Kenyatta university Ethical Review committee approved the study proposal before data collection and implementation respectively. National commission for science, Technology and innovation and the ethics review committee gave a research permit. All respondents voluntarily signed an informed consent before participating in the study. Information obtained remained confidential. Respect for persons, confidentiality and justice was observed.

Results

Social and demographic characteristics of the mother

The age of the mothers was rounded up in complete years and it was found that the mothers had varied ages. Majority (47.9%, n=184) had an age between 21-30 years, 25.3% (n=97) had an age between 31-40 years, 20.1% (n=77) had

an age below 20 years and 6.8% of the mothers had an above 41 years. On religion, majority were Christian protestants (78.4%, n=301), 19.5% (n=75) were Christian Catholics and 2.1% (n=8) were Muslims. Majority of the participants reported to be having secondary level of education (47.4%, n=182), they were followed by those with college level (33.9%, n=130), and 14.1% (n=54) reported to have primary level of education with 1.6% (n=6) having university level of education and 3.1% (n=12) having no formal education. On marital status, 63.8% (n=245) were married at the time of study, 25.3% (n=97) reported to be single and 10.9% (n=42) had been divorced by the time of study. Majority of the respondents were self-employed (57.3%, n=220), 25.8% (n=99) were formally employed and 16.9% (n=65) were unemployed. The participants who were unemployed depended on their spouses for financial support (15.9%, n=61), among those who were self-employed; some earned between 1-5 thousand per month (18.8%, n=72) and others earned between 5-10 thousand per month (39.6%, n=152) while those who were formally employed and others whose business fetched enough interest reported to earn more than ten thousand per month.

Table 1: Demographic characteristics of participants

Variable	Category	Frequency	Percentage
Age	<20 years	77	20.1
	21-30 years	184	47.9
	31-40 years	97	25.3
	Above 41 years	26	6.8
Marital status	Single	97	25.3
	Married	245	63.8
	Divorced	42	10.9
Level of education	No formal education	12	3.1
	Primary	54	14.1
	Secondary	182	47.4
	College	130	33.9
	University	6	1.6
Religion	Christian protestants	301	78.4
	Christian catholic	75	19.5
	Muslim	8	2.1
Occupation	Unemployed	65	16.9
	Self employed	220	57.3
	Formally employed	99	25.8
Gross income per month	Dependent	61	15.9
	1-5k	72	18.8
	5-10k	152	39.6
	Above 10k	99	25.8

Factors associated with maternal level of satisfaction of free maternity services

There are various factors that can affect maternal level of satisfaction. After computing the maternal level of satisfaction on free maternity services, satisfaction level was at 67.8%. This was obtained after analyzing the responses for the twenty items on likert scale. In the current study, the researcher focused on social demographic factors and health facility related factors that affect satisfaction level of the mothers seeking maternity services in the hospital.

Socio-demographic factors affecting maternal satisfaction level on free maternity services

The age of the participants was varied, with 77 of the participants being below 20 years and 26 of them being above 41 years. Majority of the respondents were aged

between 21-30 years. There was a weak association between age of the respondent and maternal satisfaction level for free maternity services ($\rho=0.112$). On computation, the results were not significantly associated with satisfaction of the mothers with the free maternity services ($\chi^2=4.759$, Fisher exact test $p=0.190$).

Marital status of the respondents was categorized into three; married, single and divorced. Majority of the participants were married and a few reported to be divorced. Out of the 245 who were married, 195 of them were satisfied with the services offered. Among the 97 who were single, only 38 were satisfied with the services offered. There was a moderate association between marital status and maternal level of satisfaction ($\rho=0.214$). There were more chances of a married mother to be satisfied compared to those who were single. The results showed a significant association between marital status of the mother and maternal level of satisfaction at ($\chi^2=5.523$, Fisher exact test $p=0.043$).

The mothers who participated in the study reported to have attained varied level of education. There were those who had no formal education ($n=12$), majority had secondary level of education ($n=182$) and a few had university level of education. On analysis, out of 182 participants who had secondary level of education, 121 reported to be satisfied. Among the 130 participants who had college level of education, only 41 were found to be satisfied with the free maternity services. The study also revealed that among the 6 respondents who were having university level of education, only 2 were satisfied with the services offered. These results indicate that as the level of education increases, the satisfaction level of the mothers' decreases ($\rho=0.284$). The association between level of education and satisfaction level of the mothers was significant at ($\chi^2=4.303$, $p=0.033$). Among the participants, there were 301 Christian Protestants, 75 Christian Catholics and 6 Muslims. The findings indicated that out of the 301, 203 were satisfied with the services offered in the hospital. Among the Christian Catholics, 47 out of 75 participants were also satisfied with the services offered while 6 out of 8 Muslims reported to be satisfied with the services offered. Based on

religion, majority of the respondents were satisfied. However, these results were not significantly associated with the level of satisfaction at ($\chi^2=4.611$, $p=0.133$).

There were majority of the participants ($n=220$) who reported to be self-employed while a few ($n=99$) reported to be formally employed. Among the formally employed, 65 were satisfied with the services while among the 220 who were self-employed, 146 of them were also satisfied with the services. Despite these findings, the association between the occupation of the participants and level of maternal satisfaction was not significant ($\chi^2=0.946$, $p=0.623$).

The parity of the mothers was also assessed, there were 236 mothers who were para1-3 and among them 162 were satisfied with the services offered. There were also 81 respondents who were having parity of above 3 and out of 81 of them, 48 were satisfied with the services. Among the primi gravid mothers, out of 67, 48 were also satisfied with the services offered in the hospital. However, the parity of the mother did not significantly determine level of maternal satisfaction with the services offered after introduction of free maternity services ($\chi^2=3.140$, $p=0.208$).

The mothers seeking maternity services in the hospital had varied level of monthly income. Out of 61 who reported to be depending on their spouses for income, 43 were satisfied with the services offered in the hospital. There were 72 mothers who were earning 1-5k per month, out of all these, 48 of them were found to be satisfied with the maternity services. Majority of the mothers were earning between 5 and 10 thousand per month. Out of 152 mothers in that category, 102 were satisfied with the results. Ninety-nine mothers were earning more than ten thousand per month and 65 of them reported to be satisfied with the services offered. There was no significant association between the income earned per month and maternal satisfaction level ($\chi^2=0.417$, $p=0.937$).

Among the social demographic factors analyzed; maternal level of education and marital status were the only factors found to be significantly determined maternal level of satisfaction with free maternity services.

Table 2: Social Demographic Factors affecting satisfaction level for the mothers receiving free maternity care

Variable	Response	Satisfaction level with free maternity services			
		Satisfied	Dissatisfied	Df	P value
Marital status	Single	38	9	2	P*=0.043 $\chi^2=5.523$
	Married	195	50		
	Divorced	25	17		
Level of education	No formal education	7	5	4	P*=0.033 $\chi^2=4.303$
	Primary	15	39		
	Secondary	121	61		
	College	41	89		
	University	2	4		

P* Fisher exact test p value

Health facility related factors affecting maternal satisfaction level on free maternity services

Accessibility of the hospital was assessed in relation to geographical location and distance to the hospital. Some mothers (6.3%, $n=24$) reported to have come from the nearby surrounding less than 1 kilometer away from the hospital. Others (16.4%, $n=63$) reported to have travelled between one kilometer to five kilometers to access the hospital and 77.3% ($n=297$) indicated to have travelled more than five kilometers to access the hospital. Majority of

the mothers were coming from the nearby surrounding of the hospital. Some mothers ($n=24$) were coming from less than one kilometer away from the hospital, sixty-three of other participants were traveling for 1-5 kilometers to reach the hospital and majority ($n=297$) were travelling more than 5kilometer to reach the hospital. Despite the distance, out of 297 mothers who had travelled for more than 5 kilometers to access the hospital, 205 of them were found to be satisfied with the services. Out of 63 participants who travelled for 1-5 kilometers, 39 of them were satisfied with

the services and out of twenty-four respondents who were coming from less than a kilometer away from the hospital, 14 of them were satisfied with the services. However, on analysis, there was no significant association between the distance to the hospital and maternal level of satisfaction ($\chi^2=2.105$, $p=0.349$).

The roads to the hospital were also assessed and it was found that some roads (40.9%, $n=157$) were tarmac roads while the remaining 59.1% ($n=227$) were marram roads and were inaccessible especially during the rainy season. The nature of the roads used to access the hospital is thought to influence structural accessibility of the hospital. In the current study, 157 participants reported that the roads were tarmac while 227 participants reported that their roads were inaccessible for vehicles and had to use motorcycles to access the hospital. Among those who used tarmac roads, out of 157, 99 were found to be satisfied with the services in the hospital while among the 227 who accessed the hospital despite passing through inaccessible roads, 159 were satisfied with the services offered in the facility. On analysis, there was no significant association between structural accessibility of the roads to the hospital and the services offered in the hospital ($\chi^2=2.055$, $p=0.152$).

The mothers felt safe when they were in the hospital and that their pregnancy and newborns were safe. This was evident when 51% ($n=196$) of the mothers strongly agreed that they were satisfied with the safety in the hospital, 26% ($n=100$) agreed that they were satisfied with the hospital safety, 10.4% ($n=40$) were not sure, 9.4% ($n=36$) disagreed that their safety was guaranteed and 1.6% ($n=6$) strongly disagreed that they were safe in the hospital.

Bed occupancy was also assessed, it was expected that due to increased numbers of patients, the patients may be forced to share beds. However, on assessment it was found that the mothers were not sharing beds during the time of the study. This was evident when 61.7% ($n=237$) of the mothers agreed that they were each sleeping on her own bed, 23.4% ($n=90$) were not sure if all the mothers had their own beds, 11.5% ($n=44$) disagreed that the mothers were not sharing beds and 3.4% ($n=13$) strongly disagreed that mothers were not sharing beds and indicated that sometimes they were forced to share beds. Hospital bed occupancy was also analyzed in the current study. It was found that, majority of the respondents agreed that despite the increase in inflow of mothers seeking maternity services; the mothers were not sharing beds. There were a few mothers ($n=44$) who disagreed that each mother occupied her own bed; these mothers were found to be dissatisfied with the maternity services offered since they reported to have had shared a bed post-delivery. There was a strong association between mothers sharing a bed and their satisfaction level with the services offered ($\rho=0.321$). On computation, there was statistically significant association between mothers sharing a bed and level of maternal satisfaction ($\chi^2=6.420$, $p=0.029$). Post-delivery some new born are admitted to newborn unit (nursery) and were not expected to share an incubator. The research results showed that 35.2% ($n=135$) of the mothers agreed that their babies were not sharing an incubator, 12.5% ($n=48$) were not sure if all babies were not sharing the incubators, 22.9% ($n=88$) disagreed that each baby had

his or her own incubator and indicated that some share incubators and 29.4% ($n=113$) strongly disagreed that each baby had his or her own incubator indicating that most babies were sharing an incubator. Among the mothers whose babies were admitted and the general view of the others; each baby was not put in his or her own incubator. The babies shared the incubators. The research findings showed that majority of the participants ($n=113$) strongly disagreed that each baby was in his or her own incubator. This was supported by 88 mothers who also disagreed that each baby had own incubator. Sharing of the incubators was a significant indicator that the mothers were not satisfied with the free maternity services in the hospital ($\chi^2=25.379$, $p=0.000$).

Hospital cleanliness gives a general view of the services offered in the facility, the outlook and surrounding cleanliness portray the image of the hospital. The current study found out that some wards were clean and others not. This was established when 39.3% ($n=151$) of the mothers agreed that the hospital was clean always, 7.6% ($n=29$) were not sure that the hospital was clean, 7.8% ($n=30$) disagreed that the hospital was clean and 45.3% ($n=174$) strongly disagreed that the hospital was always clean. Hospital environment cleanliness was also assessed in association with maternal satisfaction with free maternity services. It was found out that majority of the respondents ($n=174$) indicated to strongly disagree that the hospital environment was always clean to their satisfaction. Thirty respondents also disagreed that the environment was always clean with twenty-nine others not being sure if it was clean or not. These results showed that hospital environment cleanliness was strongly associated with maternal level of satisfaction ($\phi=0.409$), the results were statistically significant at ($\chi^2=64.292$, $p=0.000$).

Availability of bed and clean linen in the hospital was also assessed. Some mothers reported to be provided with a bed and clean linen to change every morning while others were not given the linen. The study results showed that 76% ($n=292$) of the mothers agreed that they were given clean linen to change every morning, 13.5% ($n=52$) were not sure that all mothers were given clean linen and clean hospital clothes to change, 7.6% ($n=29$) disagreed that they were provided with clean linen to change every morning and 2.9% ($n=11$) strongly disagreed that clean linen was provided every morning for changing. The mothers who were given clean linen every morning had high satisfaction level, however, there were a few mothers ($n=11$) who reported that their linen was not changed on a daily basis and were dissatisfied with the services offered. In general, availability of linen and a bed was significantly associated with maternal satisfaction with services offered in the hospital after introduction of free maternity services ($\chi^2=72.855$, $p=0.000$).

Among the factors assessed; availability of bed and clean linen, cleanliness of the hospital, availability of incubators for each child (not sharing incubator), and bed occupancy (not sharing a bed) were found to be statistically significant in determining maternal satisfaction for maternity services after introduction of free maternity services.

Table 3: Health Facility Factors affecting satisfaction level for the mothers receiving free maternity care

Variable	Response	Satisfaction level with free maternity services			
		Satisfied	Dissatisfied	Df	P value
Each patient has own bed	Agree	170	67	3	P*=0.029 $\chi^2=6.420$
	Not sure	56	34		
	Disagree	19	25		
	Strongly disagree	7	6		
Each baby on his or her own incubator	Agree	80	55	3	P=0.000 $\chi^2=25.379$
	Not sure	22	26		
	Disagree	64	24		
	Strongly disagree	92	21		
Cleanliness	Agree	80	71	3	P=0.000 $\chi^2=64.292$
	Not sure	12	17		
	Disagree	13	17		
	Strongly disagree	153	21		
Bed and linen were available	Agree	226	66	3	P*=0.000 $\chi^2=72.855$
	Not sure	24	28		
	Disagree	2	27		
	Strongly disagree	6	5		

P* Fisher exact test p value

Discussion of the results

The mothers in the current study were satisfied with the quality of services offered in the hospital at 67.8%. These findings were in contrast with the findings of Al-Battawin & Hafiz (2017) ^[1] which showed that only 3% of the mother were satisfied with maternity services. This might have been contributed by the differences in quality of care that was provided by the two hospitals; the current hospital and the Egyptian hospital where the other study was done. In Nigeria, the level of satisfaction was found to be at 98.5% as was reported by Odetola & Fakorede, (2018) ^[7] and this was thought to have been contributed by quality of services which were of high quality. These results were in agreement with those in the current study.

The results indicated that the mothers who participated in the current study had varied ages with the majority having 21 years and 30 years. However, the age was not significantly affecting the level of satisfaction of the mothers on free maternity services. In Italy, the age of the respondents was found to be increasing with level of maternal satisfaction to maternity services. This was associated with the fact increase in age was compounded with higher learning; as the mothers advanced in age, they were likely to be educated more (Tocchioni *et al.*, 2018) ^[7]. The current study age was not confounding to level of higher learning.

Level of education has been negatively associated with level of satisfaction. The current study showed that there were majority of the participants with secondary education. Among these the level of satisfaction was high. However, among the participants who were having college and university level of education showed low levels of satisfaction with the services offered. This might have been associated with the fact that the more educated the mother was, the more she knew about her rights and the level of quality services she deserved. The mothers with low level of education were thought to accept any positive input in care and that increased their level of satisfaction. These results were congruent with those reported in Ethiopia by Bitew *et al.*, (2015) ^[2]; in Ethiopia levels of satisfaction decreased with increase in level of education.

In the current study, the mothers reported to have been admitted each to her own bed. This increased their satisfaction levels, however, in another study by Gitobu *et*

al., (2018) ^[5] it was indicated that in Machakos County and Nakuru County the patients were found to have been sharing beds in the hospitals and that contributed to their low level of satisfaction which was different in the current study. In Kenyatta National Hospital, a study found that the overall satisfaction level of respondents was 62.4% with significant association between availability of clean linen, facility cleanliness and sharing of beds and baby incubators respectively on maternal satisfaction level (Geoffrey *et al.*, 2018; Chesumei *et al.*, 2018) ^[4, 3].

Conclusion of the study

The study concluded that the level of satisfaction for the current study was at 67.2%. This was contributed by maternal level of education, maternal marital status, availability of bed and clean linen, cleanliness of the hospital, availability of incubators for each child (not sharing incubator), and bed occupancy (not sharing a bed) were found to be statistically significant in determining maternal satisfaction for maternity services after introduction of free maternity services.

Recommendation

The staffs should clean linen on daily basis for the mothers and their new-borns. The hospitals to ensure each mother and baby are in their own bed and incubator respectively. The cleanliness of the hospital and its environs should be maintained at high standards.

References

1. Al-Battawi, Hafiz. Evaluation of postnatal mothers satisfaction with nursing care in El-Shatby maternity university hospital. Journal of nursing and health sciences 2017.
2. Bitew, Ayichiluhm, Yimam. Maternal satisfaction on delivery services and its associated factors among mothers who gave birth in public health facilities of Debre-Markos town, North West Ethiopia. Biomed Res, Int 2015.
3. Chesumei, Mutai, Kiage. Satisfaction levels of free maternity services at kabarnet County hospital. Global journal of health sciences 2018, 41-56.
4. Geoffrey Kenneth, Margaret K. Health system factors associated with maternal satisfaction level among

- postnatal women attending public hospitals in Nairobi city county, Kenya. The international journal of science and technology 2018.
5. Gitobu Gichangi, Mwanda. Satisfaction with delivery services offered under the free maternal healthcare policy in Kenyan public health facilities. Hindawi 2018.
 6. Mukabana, Mukaka. Effects of the free maternity care programme on client satisfaction at county referral hospital in Kenya. International journal of advanced research 2017.
 7. Odetola, Fakorede. Assessment of perinatal care satisfaction amongst mothers attending post natal care in ibadan, Nigeria. Global health, 2018, 36-46.
 8. Tocchioni, Segheieri, Santis, Nuti. Socio-demographic determinants of women's satisfaction with prenatal and delivery care services in Italy. International journal for quality in health care 2018, 594-601.
 9. World Health Organization, Standards for improving quality of maternal and newborn care in health facilities. WHO. Geneva, Switzerland 2016.