

Research Article

Clients' Satisfaction with Antenatal Care Services at Pumwani Maternity Hospital and NCK Huruma Community Clinic

Antony Murithi Gitonga¹ , Makobu Kimani^{2,*}

¹Department of Public Health, Human Nutrition and Dietetics, Kenya Methodist University (KeMU), Meru, Kenya

²Kenya Medical Research Institute (KEMRI), Mombasa, Kenya

Abstract

Despite the MOH policies on the right to safe motherhood, right to access information and quality services by women throughout pregnancy, childbirth and post-natal period, accessibility and satisfaction with ANC services by pregnant mothers remain a challenge. Client satisfaction with antenatal care services affects accessibility to these services by pregnant women, which in turn affects the outcomes of pregnancy. Client's concerns, suggestions, desires and expectations of health care services need to be seriously examined due to their potential influence on utilization of health services and satisfaction. This was a descriptive cross-sectional study which sought to determine antenatal clients' satisfaction with antenatal care services among mothers attending antenatal clinic at Pumwani Maternity Hospital and N.C.C.K Huruma community clinic. The study targeted pregnant women aged between 18-49 years seeking antenatal services in both clinics. Simple random sampling technique was used to recruit the subjects. Fischer's formula was applied to calculate a sample size of 265 antenatal mothers. Structured and semi-structured questionnaires were used to collect quantitative data. Bivariate analysis of data was done using SPSS Version 21 software; cross-tabulation was done to obtain association between variables and null hypothesis was tested using Chi-square. Clients portrayed high levels of overall satisfaction with services at 92.8% (60.6% satisfied and 32.2% very satisfied). However, some of the reasons given for dissatisfaction were long waiting time, poor health workers support and high cost of services. Satisfaction was influenced by the type of facility attended i.e. public or Faith-based and a significant association was observed between type of facility and satisfaction levels (p-value 0.000). Age and level of education had no association with antenatal clients' satisfaction with services (p-value 0.254 and 0.292 respectively). Family income was not seen to influence satisfaction (p-value 0.503). Waiting time for services (p-value 0.000) and health worker support (p-value 0.000) played a significant role in clients' satisfaction. There was a statistically significant difference in the level of antenatal clients' satisfaction with services between Pumwani Maternity Hospital clinic and N.C.C.K Huruma clinic. As much as the overall satisfaction with services was high, there is need to address reasons for dissatisfaction with antenatal services in order to increase antenatal clinic attendance, improve pregnancy outcomes and reduce maternal mortality rates.

Keywords

Satisfaction, Antenatal, Services, Pregnant, Maternal, Women, Clinic

*Corresponding author: makobukimani@hotmail.com (Makobu Kimani)

Received: 5 January 2024; **Accepted:** 26 January 2024; **Published:** 20 February 2024



Copyright: © The Author(s), 2024. Published by Science Publishing Group. This is an **Open Access** article, distributed under the terms of the Creative Commons Attribution 4.0 License (<http://creativecommons.org/licenses/by/4.0/>), which permits unrestricted use, distribution and reproduction in any medium, provided the original work is properly cited.

1. Introduction

There is proof that essential care during pregnancy is crucial in preventing perinatal deaths and improving newborn outcomes [1]. Client satisfaction is essential for further improvement of focused antenatal care and to provide uniform health services for pregnant women [2]. Globally, an estimated 289,000 women died during pregnancy and childbirth in 2013. Women die as a result of complications during and following pregnancy and childbirth [3].

Previously Kenya used the standard model of antenatal care. This model established in the 1930's involved as many as 12 visits to a doctor or a midwife [4]. A pregnant woman was expected to attend clinic four-weekly from 20 weeks gestation until 32 weeks, fortnightly from 32 weeks to 36 weeks and then weekly visits until delivery [5, 6]. This scheme was not evidence based and persisted for many years. Kenya adopted the World Health Organization (WHO) evidence-based guidelines on Antenatal Care (ANC), mainly known as Focused Antenatal Care (FANC) which is goal-oriented visits. The model emphasizes on early identification, prevention and management of life-threatening complications [7]. WHO recommends at least four thorough comprehensive, personalized antenatal visits spread out during the entire pregnancy in the following schedule; 1st visit < 16 weeks gestation, 2nd visit 16 – 28 weeks, 3rd 28 – 32 weeks and 4th >32 weeks [4]. Client satisfaction has been argued to be important issues in contemporary Healthcare practice [8].

According to Kenya Demographic Health Survey [9], pregnant women who make the four recommended antenatal clinic visits declined from 52% in 2003 to 47% in 2008-2009. The current report [10], revealed that only 42.8% of the pregnant women in the lowest wealth quintile received two injections of Tetanus Toxoid. The cause of this decline has not been investigated. It is important to explore and seriously examine patients' concerns, suggestions, desires and expectations of health care due to their potential influence on utilization of health services and satisfaction [11]. Studies have shown that when attention on patients' views on health services is increased and quality of service improved, satisfaction is enhanced and hence continuity and use of services [12]. In Kenya, it is estimated that for every 100,000 live births, about 360 women die due to pregnancy related complications [13]. These complications which occur during pregnancy can be detected during antenatal care and most deaths prevented. Thus, Antenatal services should be personalized and of quality in order to satisfy the pregnant mothers and motivate them to complete the four recommended visits. Studies have revealed that lack of satisfaction with care could turn out to be a demotivating factor with regard to the use of healthcare services. Thus, understanding the experiences and expectations of expectant women during antenatal care period is important in assessing their satisfaction with the services and to determine areas which would require improvement. Therefore, this study seeks to investigate client's satisfaction towards antenatal services at Pumwani maternity

and NCKK Huruma antenatal clinic.

2. Materials and Methods

2.1. Type and Period of Study

This was a descriptive cross-sectional study which was conducted between 6th April 2015 and 22rd May 2015. It was concerned with clients' satisfaction with antenatal care services at PMH and NCKK Huruma clinics. The research adopted quantitative methods of data collection and processing.

2.2. Setting of the Study

The study was conducted in Nairobi City County, Kenya, in two health facilities i.e. Pumwani Maternity Hospital and National Council of Churches of Kenya, Huruma community clinic. Nairobi is the capital city of Kenya which is densely populated cosmopolitan city with an estimated population of 3.1 million people, according to the population census done in 2009 [14].

Pumwani Maternity Hospital (PMH) is a referral Maternity hospital, which handles an average of 700 antenatal mothers in a month and 17,000 – 20,000 deliveries in a year. Daily ANC attendance averages 36 clients. New antenatal clients never attended clinic anywhere else were charged 1,400/- shillings, new client with an antenatal booklet from another clinic 400/- shillings and all re-visits 200/- shillings.

Huruma community clinic is a Faith-based organization (FBO), founded by the National Council of Churches of Kenya (NCKK). It is situated off Juja road next to Kariobangi round about; at Huruma/Mathare slums. Huruma clinic offer services to low-income earners from within its surrounding areas. It attends to an average of 17000 patients in a year and about 120 antenatal mothers per month with a daily average attendance of 6 clients. The charges for antenatal clients are, new client 1,000/- shillings, new who had ANC profile done elsewhere 200/- shilling, re-visit 100/- shillings.

The two sites were chosen because both serve low-income earners living in the slum areas but managed by different management structures.

2.3. Inclusion and Exclusion Criteria

All pregnant women seeking ANC services at PMH and Huruma clinic who were in the reproductive age of between 18-49 years single, married, separated or divorced and agreed willingly to participate in the study.

Pregnant women between 18-49 years seeking ANC services at the two clinics that were sick and unable to respond to the interview and those who were not willing to participate in

the study were excluded.

2.4. Sampling

Simple random sampling technique was applied in both institutions. Proportionate sampling was used to determine the number of respondents from each institution to correspond to the number of ANC clients attending the clinic per day to ensure sample representation. Huruma clinic had an average daily attendance of 6 clients whereas Pumwani ANC clinic had 36 clients; making a ratio of 1:3. The study population was selected on this basis of antenatal client's daily attendance in both facilities. A total of 264 participants were recruited with 88 from Huruma clinic and 176 from Pumwani clinic.

2.5. Data Collection and Tools

Exit interviews were done to collect information from the participants on the service received at the clinic on the day of data collection. Structured and semi-structured questionnaires were used to collect information on client satisfaction with antenatal care services at Pumwani maternity hospital and national council of churches of Kenya, Huruma community clinic. Pretesting of the study instrument was done at Makadara Health center before commencement of the study to ensure its reliability.

2.6. Data Processing and Analysis

Data was validated, then cleaned and coded. Analyzing of data was done using statistical package for social sciences (SPSS) version 21. Summarized data was presented in tables, pie charts and bar graphs. Descriptive statistics were used during discussion of the findings. Cross-tabulation was used to obtain association between variables and hypothesis was tested using Chi-square.

2.7. Ethical Considerations

Participants were explained the purpose and the objectives of the study, how confidentiality was to be upheld, the benefits and risks of participating in this study. Informed consent was obtained from the participants by signing a consent form indicating their acceptance to participate in the study. The study was approved by Kenya Methodist University (KeMU) research and ethical committee as well as Pumwani Maternity Hospital. Permission to collect data was also sought from NCK Huruma community clinic administration.

3. Results

A total of 264 women were recruited into the study of which 88 were from NCK Huruma community clinic and

176 from Pumwani Maternity Hospital.

3.1. Socio Demographic Characteristics of the Respondents

Majority of the respondents were between the 18-31 years with 120 (45.5%) aged between 18-24 years and with 111 (42.0%) aged between 25-31 years. The findings also indicate that less than half of the respondents 102 (38.6%) had attained secondary education (Table 1), while only 5 (1.9%) had no formal education. Those who had attained college education were 60 (22.7%). In terms of family monthly income, 63 (23.9%) of the respondents earned above 20,000/- (Kshs) followed closely by 55 (20.8%) with an income of below 5,000/- Kshs (Table 1).

Table 1. Socio-demographic characteristics (N=264).

Characteristics	Responses	Frequencies	percentages
Age	18-24	120	45.5
	25-31	111	42.0
	32-38	27	10.2
	39-45	5	1.9
	Above	1	0.4
Total		264	100
Education level	Never attended school	5	1.9
	Primary dropout	8	3.0
	Completed primary	50	18.9
	Secondary dropout	31	11.7
	Completed Secondary	102	38.6
Family Income (kshs)	College dropout	8	3.0
	Completed college	60	22.7
	Below 5,000	55	20.8
	5,001 -10,000	50	18.9
Family Income (kshs)	10,001 - 15,000	49	18.6
	15,001 - 20,000	47	17.8
	Above 20,000	63	23.9
Total		264	100

3.1.1. Antenatal Clients Age in Years Per Facility

The above chart (Figure 1) demonstrates that Huruma has a higher number of clients with a monthly income of below 5,000 Kenya shillings at 33 (37.5%) while at Pumwani only 22 (12.5%). At Pumwani 44% accounted for respondents earning between 10,001-15,000 shillings whereas at Huruma only 26.1% accounted for the same. Those earning above 20,000 shillings were 44% and 19% for Pumwani and Huruma respectively. (Figure 2)

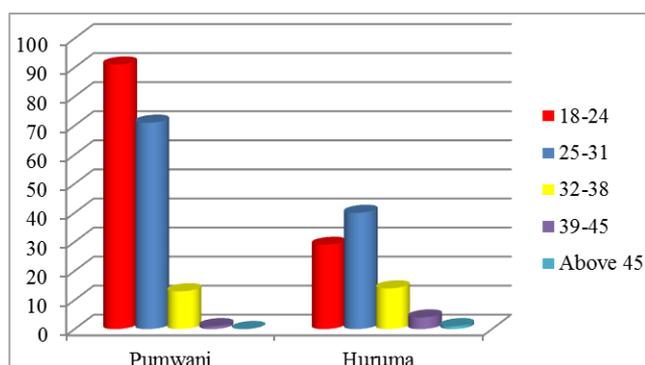


Figure 1. Antenatal clients age in years per facility.

3.1.2. Family Monthly Income in Kenya Shillings

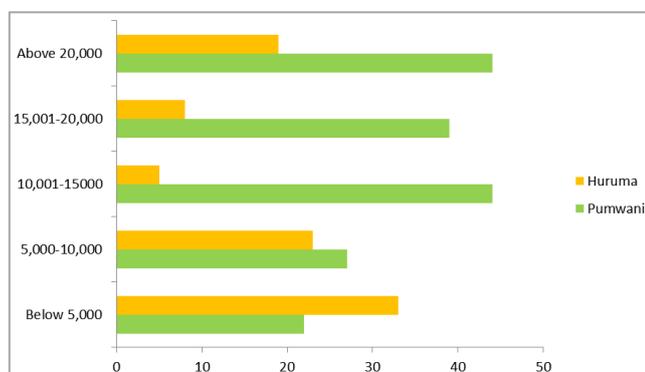


Figure 2. Family Monthly income in Kenya Shillings.

3.2. Antenatal Service Expectations

Figure 3, Show that on service expectations. Service expectation rating; poor (no expectation met), good (some of expectations met), very good (almost all expectations met) and excellent (all expectations met). More than half of the respondents rated the service as good (50.4%) while only 1.1% rating the service received as poor. The rest rated the service as very good and excellent at 29.2% and 18.9% respectively.

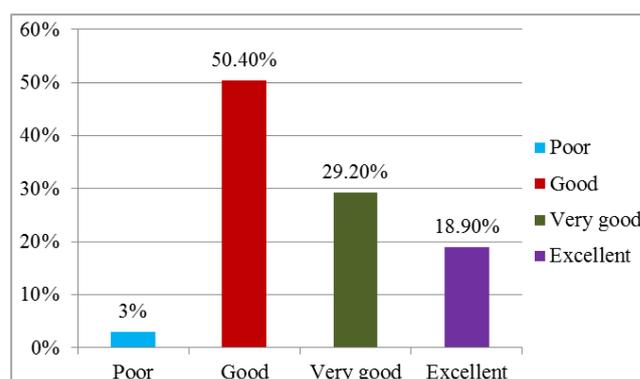


Figure 3. Overall antenatal service expectations rating.

3.3. Health Care Provider Services

Table 2 indicates that a majority of the respondents felt that they were accorded attention by nurses, (54.2%) indicating the nurses were attentive and (42.8%) very attentively. Only (3.0%) of the respondents felt that the nurses did not pay attention to them. On privacy during physical examination, more than half (60%) felt that privacy was provided. A minority (5.3%) of the respondents felt that they were not accorded privacy. On opportunity to express self during interaction with nurses, majority (79.2%) feeling that they were given an opportunity to express themselves fully. Equally the findings on attention accorded to respondent by support staff was above half with (74.2%) of respondents feeling that they were fully attended to.

Table 2. Provider related services.

Variable	Responses	Frequency n=264	Percentage
Attention accorded by Nurses	Not attentively	8	3.0
	Attentively	143	54.2
	Very attentively	113	42.8
Total		264	100
Privacy during physical examination	No	14	5.3
	Partially	90	34.1

Variable	Responses	Frequency n=264	Percentage
Total	Fully	160	60.6
	No	1	0.4
Accorded opportunity to express self	Partially	54	20.5
	Fully	209	79.2
Attention by support staff		264	100
	No	1	0.4
	Partially	67	25.4
	Fully	196	74.2

3.4. Facility Related Services

Figure 4 Shows that only (3.0%) of the respondent indicated that the facility waiting area was not clean. The remaining indicated that the facility was clean at (20.5%) partially clean and (76.5%) very clean.

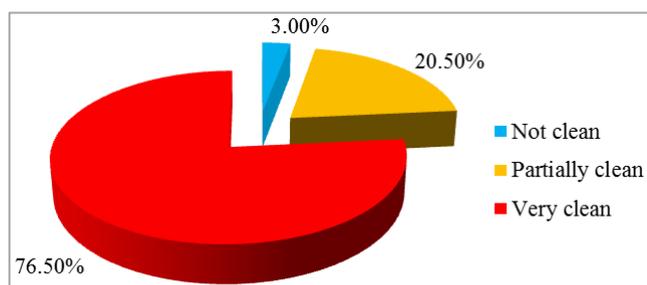


Figure 4. Cleanliness of waiting area.

3.5. Respondents' Satisfaction Levels with Antenatal Services

Among the respondents, 7.2% were dissatisfied with antenatal services, 60.6% satisfied and 32.2% very satisfied. Some of the reasons given for dissatisfactions were long waiting time at the facility, poor health workers support and high cost of service (Figure 5).

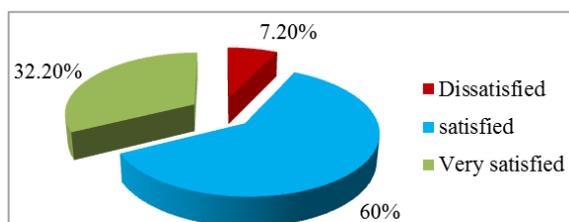


Figure 5. Overall client satisfaction with services.

3.6. Health Worker Support Rating

Health worker support was rated under poor (no support at all), good (support given such as information and pregnancy progress), very good (Information on pregnancy progress and additional information) and excellent (all clients' needs attended to). More than half (53.98%) of the respondents at Pumwani rated the support by health worker has good compare to 39% from Huruma. However, Huruma had a lower percentage of those who rated support as poor, 1% whereas 5.68% were from Pumwani. (Figure 6)

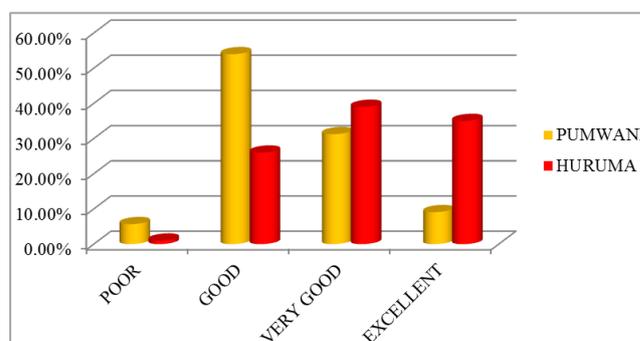


Figure 6. Health worker support rating.

3.7. Relationship Between Variables

From table 3, the type of facility i.e. public or private (Faith-based) play a role in satisfaction (p-value 0.000). Age and level of education had no association with antenatal clients' satisfaction with services p-value 0.254 and p-value 0.292 respectively. Family income was not seen to influence satisfaction (p-value 0.503). Waiting time for the services (P-value 0.000) and health worker support (P-value 0.00) played a significant role in client satisfaction.

Chi-Square was used to test the hypothesis. There was a statistically significant difference in service satisfaction

among clients attending PMH and Huruma clinic.

Table 3. Association between variables.

	SATISFIED	DISSATISFIED	TOTAL	Chi Square (X^2)	d.f	P- value
Facility						
Pumwani Clinic	158	18	176	13.560	6	.001
Huruma Clinic	87	1	88			
Total	245	19	264			
Age						
18-31 years	213	18	231	10.167	8	0.254
32-45 years	32	1	33			
Total	245	19	264			
Education level						
Primary and below	57	6	63	14.141	12	.292
Secondary and above	188	13	201			
Total	245	19	264			
Waiting time						
Took average time	215	5	220	56.110	4	.000
Took too long	30	14	44			
Total	245	19	264			
H/w support						
Poor	6	5	11	112.498	6	.000
Good	240	13	253			
Total	246	18	264			

4. Discussion

Majority of the respondents were between 18 to 31 years accounting for 87.5% of the total respondents. The study found that majority (51%) of the clients between 18- 24 years attended Pumwani clinic whereas only 33% attended Huruma clinic. This study showed that there was no association between the age of the clients and the level of satisfaction (p value =0.254). Similar results were found by Salma and Pitaloka [11, 15]. However, Akhbari et al [16] reported that age was associated with patients' satisfaction and older patients were found to report a slightly higher satisfaction than younger patients.

Literacy levels were high with only 1.9% of the respondents having never attended school. A combination of those who dropped out at secondary level and those who completed secondary level were 50.3% (11.7% and 38.6% respectively).

Those who completed college level were 22.7%. The study shows a cumulative dropout rate at all levels of education to be 17.7%. The level of education had no influence on satisfaction (p-value .292). In their study on perception of antenatal care in Cameroon, Gregory et al noted that there was no association between clients' level of education and satisfaction [17]. These findings agree with findings of this study. To the contrary, Palas found that with increasing level of education one's expectations increases leading to less satisfaction [18].

The choice of facility to attend was seen to be influenced by the family earnings with more of the respondents earning less than 5,000/ attending Huruma clinic (37.5%) compared to 12.5% who attended Pumwani. This was attributed to the higher cost of antenatal services at Pumwani Maternity Hospital. There was no relationship found between family income and the level of satisfaction. The results contradict those by Chemir [2], who found less satisfaction among antenatal

mothers from low-income families. According to a study by Nnebe, on perception and satisfaction with quality of maternal health care services in Nigeria, level of satisfaction was not found to be different among women of different socio-economic groups [19].

Attention given to clients by nurses was found to influence satisfaction with services. Majority of the respondents felt that nurses paid attention to them, 54.2% and 42.8% expressing attentive and very attentive respectively. There was a significant relationship between the attention and level of satisfaction with a p -value= 0.000, $df=4$. Previous study by Langer on antenatal women satisfaction with health care concluded that, "when there is attention on patient's views on health service, satisfaction is enhanced" [12]. These findings agree with the results of this study.

Waiting time was found to have a significant association with satisfaction with a p -value=0.000. Olufemi et al observed that long waiting time for services resulted into dissatisfaction (50.7%) among antenatal women seeking services at Primary care level in South West Nigeria [20].

Women are more likely to seek and return for services if they feel cared and respected by their care providers and receive the care they need in full measure [7]. This observation is in line with the findings of this study which demonstrated a high level of satisfaction with health worker's support. Majority of the respondents expressed satisfaction with health worker support (good 44%, very good 33%, and excellent 17%) with a minority (4.17%) expressing dissatisfaction with the support given by health care provider. In a study on satisfaction with antenatal services, Chemir observed that 80.7% of the mothers were satisfied with interpersonal aspect of care and services [2]. The observations are similar to the findings of this study.

Majority of the respondents rated the overall cleanliness of the waiting area as satisfying with 76.5% indicating very clean and 64% indicating toilets were very clean. However, 7.6% expressed displeasure with the cleanliness of the toilet. The findings are consistent with those by Olufemi et al, [20] in Nigeria which shown that more than two thirds (63.3%) of respondents were happy with the facility waiting area.

5. Conclusions

The factors determining antenatal clients' satisfaction with services established by the study include; age, family income, health worker's support, waiting time and service expectations. In order to maximize on the benefits of antenatal and improve pregnancy outcomes, the above factors need to be addressed.

Age was found to have an association with the level of satisfaction. It was a predictor of which facility the client would attend. The higher percentage of women aged 18-24 attending Pumwani clinic could be attributed to the availability of gynecologists and obstetricians within the hospital for consultation. Client's family income was a determining factor on which facility to attend for antenatal services. Most of the

low-income earning clients attended Huruma clinic due to the facility's lower antenatal service fee. The study revealed that there was a significant relationship between the facility attended and client's family income.

The study revealed that waiting time was well managed at the facilities as evidenced by the high percentage of clients who indicated having taken short and average time to be attended to. There was a statistically significant association between waiting time and client's overall satisfaction with the antenatal services.

Health workers played a great role in client's satisfaction with service. The findings of this study indicates that majority of the clients expressed satisfaction with the way they were attended to by the service providers. There was a significant relationship between the health worker support and the level of client's satisfaction with antenatal service.

In conclusion there was a statistically significant difference in service satisfaction among clients attending PMH and Huruma clinic.

Abbreviations

ANC: Antenatal Care
 FANC: Focused Antenatal Care
 FBO: Faith-Based Organization
 KeMU: Kenya Methodist University
 MOH: Ministry of Health
 NCCCK: National Council of Churches of Kenya
 PMH: Pumwani Maternity Hospital
 SPSS: Statistical Package for Social Science

Conflicts of Interest

The authors declare no conflicts of interest.

References

- [1] World Health Organization/United Nations Children Fund (2006) Integrated management of pregnancy and childbirth: Pregnancy, childbirth, postpartum and newborn care: A guide for essential practice, 2nd edition, Geneva, Switzerland.
- [2] Chemir Fantaye, Fessahaye Almseged and Desta worknch, (2013) Satisfaction with FANC services and associated factors at Health Centers in Jimma town, Jimma zone, south west Ethiopia.
- [3] World Health Organization. World Health Statistics 2014. Available: <http://apps.who.int/iris/bitstream/>
- [4] World Health Organization (2002) Antenatal randomized trial; Manual for the implementation of the new model. Department of reproductive health and research, family and community health, Geneva, Switzerland.
- [5] Diane M, Fraser, Margret A, Cooper (2003), Myles Text book for midwives 14th edition published by Churchill Livingstone.

- [6] Philip N. Baker, *Obstetrics by Ten teachers, 18th Edition, Hodder Education publishers, 33Euston Road, London; 2006.*
- [7] Republic of Kenya (ROK), (2006) Essential obstetric care manual for health services provider in Kenya, 3rd edition, *Division of reproductive health*, Ministry of Health.
- [8] Graham R. Williams, Tracey Protocor, Tim Jenkinson; *Nursing in contemporary Healthcare practice, 1st Edition, Great Britain, 2008.*
- [9] Kenya National Bureau of Statistics - KNBS, National AIDS Control Council/Kenya, National AIDS/STD Control Programme/Kenya, Ministry of Public Health and Sanitation/Kenya, and Kenya Medical Research Institute. 2010. Kenya Demographic and Health Survey 2008-09. Calverton, Maryland, USA: KNBS and ICF Macro. Available at <http://dhsprogram.com/pubs/pdf/FR229/FR229.pdf>
- [10] Kenya National Bureau of Statistics, Ministry of Health/Kenya, National AIDS Control Council/Kenya, Kenya Medical Research Institute, and National Council for Population and Development/Kenya. 2015. Kenya Demographic and Health Survey 2014. Rockville, MD, USA: Available at <http://dhsprogram.com/pubs/pdf/FR308/FR308.pdf>
- [11] Prof. Dr. Salma Abdel, Atty Moawel, Dr. Essmart Mohammed Germeay and Nerrseen Alshmi, (2009) Identification of factors associated with Maternal satisfaction with primary healthcare centers in Riyadh City, Saudi Arabia.
- [12] Langer A, Villar J, Romero M, Nigenda G, Piaggio G, Kuchaisit C, Rojas G, Al-Osmimi M, Belizan M, Farnot U, Al-Mazrou Y, Carroli G, Ba'aqeel H, Lumbiganon P, Pinol A, Bergsjö P, Bakketieg L, Garcia J and Berendes H, (2002) Are women and providers satisfied with antenatal care? Views on standards and a simplified, evidence-based model of care in four developing countries, *BMC Women's Health*.
- [13] Republic of Kenya (ROK), (2014) A strategic framework for engagement of First Lady in HIV control and promotion of Maternal, Newborn and Child health in Kenya.
- [14] Kenya National Bureau of Statistics,(2010), Kenya - 2009 Kenya Population and Housing Census, Population and Housing Census <https://statistics.knbs.or.ke/nada/index.php>
- [15] S. Dyah Pitaloka and A. M. Rizal; (2006) patient satisfaction in antenatal clinic hospital: universities kebangsaan; *Malaysia journal of community health* 12, pp 8-16.
- [16] Akhbari F, Hussein M, and Chozokly N., (2006) Study of effective factors on inpatient satisfaction in hospitals of Tahrán university of medicine science: *scientific journal of school of public health research: 4*(3), 25-36.
- [17] Gregory Edie Helle Ekana Edie: Thomas Egbe obinchemti Emmanuel njuma tamufor martinimafany njie theophile nana njamen Erick akum achidi (2014) perception of antenatal care services by pregnant women attending government health centers in buea health district, Cameroon: a cross-sections study the pan African medical journal, 2015, 21: 45.
- [18] Palas Das, Mausum Basu, T. Tikadar, G. C Biswas, P Mridha and Ranabir Pas, (2010) Client satisfaction on Maternal and Child health services in Rural Bengal, *Indian journal of community Medicine*, 2010, 35(4): 478-481.
- [19] Nnebue C. C, Ebenebe U. E, Edinma E. D, Iyoke C. A, Obionu C. N, Ilika A. L, (2014) Client's knowledge, perception and satisfaction with quality of maternal healthcare service at primary health care level in Nnewi, Nigeria, *Niger journal clinical practitioner*, 2014, 17(5): 594-601.
- [20] Olufemi T, oladapo; Christiana A; Iyaniwura and Adewale O. Sule- Odu (2008) Quality of antenatal services at primary care level in southwest Nigeria *Africa journal of reproductive health* volume 12 no: 3 December 2008.