International Journal of Medical and Health Research ISSN: 2454-9142 Impact Factor: RJIF 5.54 www.medicalsciencejournal.com Volume 3; Issue 12; December 2017; Page No. 140-147



Factors associated with the quality of family planning services rendered to women of reproductive age at two health facilities in Nairobi County, Kenya

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Abstract

Background: Family planning is highly beneficial to women's overall health. Improving quality care has been a necessary goal for family planning programs worldwide and the government of Kenya in collaboration with other stakeholders has put in place various strategies and policies to increase up take of family planning services. Patient satisfaction is a useful measure of quality in healthcare. Women may be hampered to access and use of family planning methods if they do not receive quality of family planning services. The study assessed factors associated with the quality of family planning services rendered to women of reproductive ages.

Objectives: To assess the quality of family planning services rendered to women of reproductive ages (15-49 years) in Kayole II Sub County Hospital and Kayole I health center.

Methodology: A cross-sectional study was carried out among 424 women of reproductive age using explanatory and exploratory approaches at Kayole (I) health centre and Kayole II sub-district hospital. A pre-tested structured questionnaire was used to capture the clients 'information and facility assessment checklist was used to capture details on availability, accessibility, supply and adequacy of family planning services. Data analysis using the Univariate analysis including proportion, mean and frequency of client demographics was used. Chi-square test was used to compare association between independent factors(variables) and quality of family planning services and p-value set at <0.05.

Results: Overall, 74.3% of 420 participants reported being satisfied with health services. The dependence on husband, health provider qualification, accessibility and infrastructure of healthy facility, available family planning services, employment status, will to have more children determined their satisfaction.

Conclusion: There is need to shift focus from increasing uptake of family planning services to satisfying unmet needs of clients. Health education on the benefits of family planning with male involvement need to be intensified.

Keywords: family planning, client satisfaction

Introduction

The quality of family planning and reproductive health services positively affects contraceptive use and behavior of the clients; who deserve to receive safe and high-quality services with respect and dignity (Ramarao et al., 2003)^[30]. Quality of care in family planning is a complex, multidimensional subject. Improving quality of care has been a necessary goal for family planning programmes worldwide. Constraints identified to good quality include deficiencies in physical facilities and equipment; disruptions in supplies; insufficient information provided to clients; and providers' insensitivity to the feelings and needs of clients (Jain, 2001) ^[15]. Approximately 137 million women worldwide have unmet need for family planning, that is, they are not using any method and report that they want to avoid pregnancy (Rhoda et al., 2009)^[29]. Studies have shown that quality of care greatly influences the uptake and continuation of use of family planning services (Sanogo, 2003)^[30]. The quality of service can be enhanced by using other means of education such as group counseling and visual aids such as posters, leaflets, and videos (Noor et al. 1983, Marshall et al. 1984)^[25, 20].

In Kenya, the contraceptive prevalence rate (CPR) among

married women aged 15-49 years using any method of family planning is less than half which is 46% (KDHS, 2008/09). The level of use of modern contraceptive methods is 28% among all women and 39% among currently married women (KNBS and ICF Macro, 2010)^[18]. The fertility rate declined from 8.1 children per woman in 1977 to 6.7, 4.7 and 4.6 in 1989, 1998 and 2008 respectively, (Republic of Kenya, 2009). This trend shows very slow decline of fertility rate in the years of 1998 and 2008. An assessment of the quality of family planning service utilization will make possible the identification of problems that exist in the care of clients in order to enhance the attraction of clients for family planning and ensure increased and continued use of the services. Client satisfaction with services is a subjective way of measuring quality services but satisfied clients are more likely to re-visit the services, pass on positive messages to others and continue the use of a particular family planning method but on the other hand, dissatisfied clients are more likely to share their negative experiences with others and less likely to return or continue with use of family planning services (Agwanda & Kimani, 2009)^[2]. The aim of the study was to access factor associated with quality family planning service rendered to women of

reproductive age in health facilities in Nairobi County.

Materials and Methods

The study was conducted at health facilities in Embakasi central constituency. The constituency is in Nairobi County. Currently it has a population of 185, 945 as per 2009 housing census and consists of five wards; Kayole North, Kayole Central, Kayole South, Komarock and Matopeni/ Spring Valley (http://www.infotrackea.co.ke). The two health facilities have a high turnover of the clients in the reproductive health department. Family planning related services provided in the health facilities include modern contraceptives, emergency contraceptives, laboratory services, antenatal care and maternal services, post-abortion care, voluntary counseling and testing, HIV nutritional and antiretroviral therapy.

A facility based cross-sectional study utilizing quantitative method of data collection was used. The study population consisted of sampled women of reproductive age (15 to 49 years) who visited the two facilities during the study period and were selected using systematic random sampling. Subsequent respondents were selected until the required sample size was attained.

The sample size was calculated using Fischer's *et al.* (1998) single population proportion formula.

 $N = (Z\alpha - \frac{1}{2})2 p (1-p) d2$

The following assumptions are considered:

- Since the prevalence of client's satisfaction with availability of skilled personnel, family health service provided and contraceptive methods is not known for the study, p is taken to be 50%.
- Marginal error (d) =5%
- Level of significance $(\alpha) = 5\%$
- Standard normal deviate at 95% Confidence interval (Zα-¹/₂) = 1.96
- Minimum sample size required (n) = 385
- To minimize errors arising from the likelihood of noncompliance, ten percent of the sample size is added to the calculated sample size

Therefore, the total sample size was 424 females of reproductive age using family planning.

Data collection method

Data were collected through face-to-face exit interviews using pretested structured questionnaires. The questionnaires captured social demographic characteristics and satisfaction levels with the different components of the family planning services which included the availability of supplies, information provision by health workers, waiting time to get the services and courtesy, and respect of the health workers with five pointer Likert scale items with 1 and 5 (strongly disagree to strongly agree) were used indicating the lowest and the highest level of satisfaction respectively.

For qualitative information, one health provider of family planning services in each health facility were purposively selected from each health centre during the data collection time. A health facility checklist was used to solicit data from the family planning health providers.

Data analysis method

Data was cleaned and validated by checking for questionnaire completeness and consistency prior to data entry to obtain a dataset that was entered into SPSS for analysis. Double entry of the data was done into a database designed using MS – Access. Data Cleaning and validation was performed ready for analysis. Preliminary analysis of the data was done to ensure that all variables are in a workable form before data analysis takes place. Data analysis was completed using statistical package for social scientist (SPSS) version 21. In addition to descriptive statistics, bivariate analysis was employed to assess association between dependent and independent variables. Multivariate logistic regression was carried out to assess the strength of statistical association. The threshold for statistical significance was set at p<0.05.

Ethical Considerations

Approval to carry out the study was sought and obtained from Kenya medical research institute (KEMRI) Scientific and Ethics Review Unit (SERU).

Signed consent was obtained from all study participants after a detailed explanation of the purpose of the study.

Results

Univariate Analysis

Total of 420 study participants were interviewed, where 73.3% (308) were sampled from Kayole II sub district hospital and 26.7% (112) from Kayole I dispensary with a mean age of 27.0 \pm 6.0 ranging between 16 and 49 years. The highest proportion (67.4%; 283) of the women were aged 21 - 30 years, with the minority (4.3%; 18) aged between 41 - 49 years. As regard to employment status of the study respondents, majority (51.9%; 217) were unemployed whereas a small proportion (48.1%; 201) were employed. The level of education of the study respondents varied from no formal education to university education. Most (49.4%; 204) of the respondents had secondary education as the highest level of education while a small proportion (1.5%; 6) had no formal education as shown in Table 1.

 Table 1: Selected socio-demographic characteristics of the study respondents

| Variables | N=420 | % |
|-------------------|-------|------|
| Age category | | |
| 15 - 20 years | 48 | 11.4 |
| 21 - 30 years | 283 | 67.4 |
| 31 - 40 years | 71 | 16.9 |
| 41 - 49 years | 18 | 4.3 |
| Employment status | | |
| Employed | 201 | 48.1 |

| Unemployed | 217 | 51.9 |
|---|-----|------|
| Highest level of education | | |
| No Formal education | 6 | 1.5 |
| Primary | 125 | 30.3 |
| Secondary | 204 | 49.4 |
| Higher/University | 78 | 18.9 |
| Religion | | |
| Christian | 412 | 98 |
| Muslim | 8 | 2 |
| Marital Status | | |
| Single | 31 | 7.5 |
| Married | 375 | 90.1 |
| Divorced | 3 | 0.7 |
| Cohabiting | 6 | 1.4 |
| Widower | 1 | 0.2 |
| Discussed reproductive health matters as a family | | |
| Yes | 323 | 77 |
| No | 63 | 15 |
| Don't remember | 34 | 8 |
| Number of Children | | |
| One | 173 | 44.1 |
| Two | 137 | 34.9 |
| Three and above | 82 | 20.9 |
| Willing to Have More Children | | |
| Yes | 205 | 55.1 |
| No | 116 | 31.2 |
| Depend on God | 31 | 8.3 |
| Depend on husband | 20 | 5.4 |
| Previously used contraceptives | | |
| Yes | 370 | 88 |
| No | 50 | 12 |

Client Satisfaction towards Family Planning Services

Among the 420 study respondents, 74.3% (311) were satisfied and 25.7% were not satisfied with family planning services as shown in figure 1. Majority (74%, 311) agreed, 6% strongly agreed and 1.4% strongly disagreed that health providers are very friendly and greets in a courteous manner likewise, most of the respondents (74.3%; 312) agreed, 14.5% strongly agreed and 1% disagreed that the health providers treated them with a lot of respect. About 64.5% agreed, 25.2% strongly agreed and 1.4% strongly agreed that when there were receiving the family planning services the health providers handled them with privacy. Moreover, majority 57.4% agreed and 5.7% disagreed that the health providers spent a lot of time with them. Majority 61.2% agreed, 26.4% strongly agreed and 3.3% disagreed that the use of family planning method was clearly explained to them. Finally, 59% agreed, 28.1% strongly agreed and 2.1% disagreed that they feel free ask family planning question whenever they visit the health providers as shown in Table 2

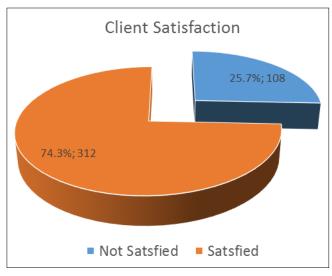


Fig 1: Level of client satisfaction

| | Client Satisfaction Family Planning Services N=420 | | | | | | | | | | |
|--|---|-----|--------|-----|----|------|-----|------|-----|------|--|
| Items | SD | | D | | N | | A | | 5 | SA | |
| | Ν | % | n | % | Ν | % | Ν | % | Ν | % | |
| Health providers are very friendly and greeting in a courteous manner | 6 | 1.4 | 9 | 2.1 | 69 | 16.4 | 311 | 74 | 25 | 6 | |
| Health providers gave the respondent more respect about her wishes | 7 | 1.7 | 4 | 1 | 36 | 8.6 | 312 | 74.3 | 61 | 14.5 | |
| When the respondent was receiving family planning the health providers paid more attention to her privacy | 6 | 1.4 | 8 | 1.9 | 29 | 6.9 | 271 | 64.5 | 106 | 25.2 | |
| Health providers spend plenty of time with the respondent | 4 | 1 | 2 4 | 5.7 | 46 | 11 | 241 | 57.4 | 105 | 25 | |
| The respondent feels that the use of the family planning method was clearly explained to her. | 3 | 0.7 | 1 4 | 3.3 | 35 | 8.3 | 257 | 61.2 | 111 | 26.4 | |
| The respondent feel free to ask about family planning services when she is with the health provider | 4 | 1 | 9 | 2.1 | 41 | 9.8 | 248 | 59 | 118 | 28.1 | |

Table 2: Level of client Satisfaction towards Family Planning Services

*n=Frequency, % - Percentage, SD- Strongly disagree, D- Disagree, N-Neutral, A- Agree, SA- Strongly agree

Qualification of health care provider

Majority 82.9% agreed, 9.8% strongly agreed and 0.7% strongly disagreed that the health providers had good knowledge and skills of performing family planning procedures. About 74.2% agreed, 16.5% strongly agreed and 4.1% disagreed that the health provider elaborated to them how the chosen family planning method works as well as the warning signs associated with its use. Majority 65.2% agreed, 20.5% strongly disagreed and 12.9% neither agreed nor

disagreed that information given to them on family planning method was sufficient. Likewise, 66.7% agreed, 29.5% strongly agreed and 0.5% strongly agreed that facilities and contraceptives methods at the Kayole I and II were tidy. About 62.5% agreed, 25.7% strongly agreed and 0.2% strongly disagreed that the healthcare provider provided satisfactory answers to all questions asked by the respondent. As shown in Table 3

| | Qualification of Health Care Providers n=420 | | | | | | | | | | |
|--|---|-----|----|-----|----|------|-----|------|-----|------|--|
| Items | | SD | | D | | A | | S | A | | |
| | Ν | % | n | % | Ν | % | N | % | N | % | |
| Health Providers have good knowledge and skills to perform the procedure | | 0.7 | 3 | 0.7 | 25 | 6 | 348 | 82.9 | 41 | 9.8 | |
| The health provider told the respondent how her chosen method works and the warning signs associated with that method | | 0.5 | 17 | 4.1 | 20 | 4.8 | 311 | 74.2 | 69 | 16.5 | |
| Information given about the method was sufficient | 0 | 0 | 6 | 1.4 | 54 | 12.9 | 274 | 65.2 | 86 | 20.5 | |
| Facilities and contraceptive methods at this clinic are tidy | | 0.5 | 3 | 0.7 | 11 | 2.6 | 280 | 66.7 | 124 | 29.5 | |
| The healthcare provider provided satisfactory answers to all questions asked by the respondent | | 0.2 | 12 | 2.9 | 36 | 8.6 | 262 | 62.5 | 108 | 25.7 | |

*n=Frequency, %- Percentage, SD- Strongly disagree, D- Disagree, N-Neutral, A- Agree, SA- Strongly agree

Accessibility and Infrastructure of the health facility

Majority 55.1% agreed, 37.7% strongly agreed and 0.7% disagreed that the respondents can easily reach the health facilities from their homes for services. About 57.4% agreed, 25.7% strongly agreed and 13.8% neither agreed nor disagreed that the reception staffs facilitated the environment so that the respondents can access all the information they needed on family planning services. About 53.3% agreed, 20% strongly agreed and 7.9% disagreed that the waiting time prior to receipt of family planning services is not long. Further, 44.3% agreed, 51.2% strongly agreed and 0.7% strongly disagreed that they could easily afford the family planning services charges. Moreover, majority 71.4% agreed, 23.3% strongly agreed and 14% neither agreed nor disagreed that either Kayole I or II clinic had adequate number of

service providers, medical equipment, facilities and contraceptive methods. Regarding the facilities majority 63.6% agreed and 34.3% strongly agreed that the waiting room was comfortable. About 60.7% of the respondents agreed and 37.4% strongly agreed that there were enough seats at the waiting area. Likewise, about 54.3% agreed and 23.3% strongly agreed that the atmosphere of the family planning area was good. In addition, majority 51.7% agreed and 39.5% strongly agreed that there are clear signs and directions to indicate where to go in the service area of this hospital. 46.4% agreed and 25% disagreed that the waiting place is adequate with latrine and water supply. Finally, majority 61.2% agreed while 29.7% disagreed that they were delighted with the clinic surroundings as shown in Table 4.

| | | Ac | cess | ibili | ty a | nd i | nfras | stru | cture | : |
|---|---|----|------|-------|------|------|-------|------|-------|----|
| | | | | | n | =42 | 0 | | | |
| Items | S | D |] | D | Ν | | Α | | SA | |
| | n | % | Ν | % | Ν | % | n | % | Ν | % |
| Respondent can easily reach family planning center from her home | 3 | 1 | 0 | 0 | 27 | 6 | 231 | 55 | 158 | 38 |
| Staffs at the reception ease the respondent to obtain all the information she needed about family planning services there | 3 | 1 | 10 | 2.4 | 58 | 14 | 241 | 57 | 108 | 26 |
| Short waiting time to get family planning services at that hospital | 2 | 1 | 33 | 7.9 | 77 | 18 | 224 | 53 | 84 | 20 |
| The respondent can easily afford the charges of the family planning method | 3 | 1 | | | 16 | 4 | 186 | 44 | 215 | 51 |
| Clinic has adequate number of service providers, medical equipment, facilities and contraceptive methods | 4 | 1 | 4 | 1 | 14 | 3 | 300 | 71 | 98 | 23 |
| The waiting room is comfortable | 3 | 1 | 2 | 0.5 | 4 | 1 | 267 | 64 | 144 | 34 |
| There are enough seats at the waiting area | 3 | 1 | 1 | 0.2 | 4 | 1 | 255 | 61 | 157 | 37 |
| Atmosphere of this family planning is good | 3 | 1 | 1 | 0.2 | 11 | 3 | 228 | 54 | 177 | 42 |
| Clear signs and directions to indicate where to go in the service area of this hospital | 3 | 1 | 5 | 1.2 | 29 | 7 | 217 | 52 | 166 | 40 |
| Waiting place is adequate | 5 | 1 | 21 | 5 | 94 | 22 | 195 | 46 | 105 | 25 |
| Delighted with the features of the clinic surrounding | 3 | 1 | 1 | 0.2 | 34 | 8 | 257 | 61 | 125 | 30 |

Table 4: Accessibility and Infrastructure and Client Satisfaction

*n=Frequency, % - Percentage, SD- Strongly disagree, D- Disagree, N-Neutral, A- Agree, SA- Strongly agree

Availability of family planning resources

Majority, 70.5% of the respondents agreed, 22.6% strongly agreed and 6% neither agreed nor disagreed that there are sufficient methods of family planning are available in Kayole I and II health facilities. Likewise, about 69.3% agreed, 19.5% strongly agreed and 0.7% strongly disagreed that the health providers are available whenever they visit and they need them. Majority, about 70.2% of the respondents agreed, 24.8%

strongly agreed and 3.6% neither agreed nor disagreed that health providers have adequate medical instruments and equipments needed in the provision of family planning services. Finally, 66.7% agreed, 26.4% strongly agreed and 1.7% disagreed that they were satisfied with the quality of family planning services they received in Kayole I and II health facilities as shown in Table 5

| Table 5: Availabilit | y of Family | Planning and | Client Satisfaction |
|----------------------|-------------|--------------|---------------------|
|----------------------|-------------|--------------|---------------------|

| | Availability of Family Planning Resources n=420 | | | | | | | | | | |
|---|--|-----|----|-----|----|-----|-----|------|-----|------|--|
| Items | SD | | D | | N | | A | | S | A | |
| | n | % | Ν | % | Ν | % | n | % | Ν | % | |
| Sufficient methods are available | 2 | 0.5 | 2 | 0.5 | 25 | 6 | 296 | 70.5 | 95 | 22.6 | |
| Health providers are available whenever the respondent need during her visit | 3 | 0.7 | 10 | 2.4 | 34 | 8.1 | 291 | 69.3 | 82 | 19.5 | |
| Health providers have adequate medical instruments and equipment needed to provide family planning services | | 0.7 | 3 | 0.7 | 15 | 3.6 | 295 | 70.2 | 104 | 24.8 | |
| Overall, the respondent is satisfied with the quality of care that she has received | | 0.5 | 7 | 1.7 | 20 | 4.8 | 280 | 66.7 | 111 | 26.4 | |

*n=Frequency, % - Percentage, SD- Strongly disagree, D- Disagree, N-Neutral, A- Agree, SA- Strongly agree

Bivariate Analysis

There was a significant relationship between client satisfaction and employment status of the respondents [95% CI = 1.06 -2.61, P=0.026] and employed were 1.67 times likely to be satisfied compared to those unemployed. Whether married respondents had discussed family planning issues with their partners was significantly associated with client satisfaction, [95% CI = 0.06- 0.42, P<0.001] and those who could not remember discussing family planning issues with their partner were 0.16 times likely to be satisfied compared to ones who had not discussed family planning issues with their partner. Respondent's willingness to have more children was significantly associated with client satisfaction [95% CI = 1.18-68.84, P=0.034]. A respondent whose willingness to have more children depended on the husband was 9.02 times likely to be satisfied compared respondents who were not willing to have more children in future.

There was a statistically significant relationship between client satisfaction and qualification of the health provider, [95% CI = 1.17- 2.94, P=0.008]. Respondents served by a qualified health worker were 1.86 times likely to be satisfied compared to those served by an unqualified health worker. Relationship between client satisfaction and accessibility and infrastructure of the health facility was statistically significant, [95% CI =1.21- 3.36, P=0.007]. Respondents who indicated that the health facility was accessible to them were 2.01 times likely to be satisfied compared to those who indicated that the health facility was not accessible to them. Availability of the family planning services was statistically significantly associated with client satisfaction 95% CI = 2.66 - 8.79, P<0.001] and those who found the family planning services available in the health facility were 4.83 times likely to be satisfied compared to respondents who found the family planning services unavailable as shown in Table 6.

| | Sati | sfied | Not Sa | atisfied | | 95% | | |
|---------------------|---------|-----------|-----------|------------|-----------|--------------|------------|---------|
| Variables | Ν | % | Ν | % | OR | Lower | Upper | P-Value |
| | Er | nploym | | is of the | | | | |
| Employed | 160 | 79.6 | 41 | 20.4 | 1.67 | 1.06 | 2.61 | 0.026 |
| Unemployed 160 | 152 | 70 | 65 | 30 | Ref | | | |
| | | | tegory o | of the res | ponden | t | | |
| 15 - 20 years | 35 | 72.9 | 13 | 27.1 | 0.34 | 0.07 | 1.67 | 0.183 |
| 21 - 30 years | 209 | 73.9 | 74 | 26.1 | 0.35 | 0.08 | 1.57 | 0.172 |
| 31 - 40 years | 52 | 73.2 | 19 | 26.8 | 0.34 | 0.07 | 1.63 | 0.178 |
| 41 - 49 years | 16 | 88.9 | 2 | 11.1 | Ref | | | |
| | E | ducatio | n status | of the re | sponder | nts | | |
| No formal education | 4 | 66.7 | 2 | 33.3 | 0.69 | 0.12 | 4.06 | 0.681 |
| Primary | 88 | 70.4 | 37 | 29.6 | 0.82 | 0.43 | 1.55 | 0.542 |
| Secondary | 156 | 76.8 | 47 | 23.2 | 1.14 | 0.63 | 2.09 | 0.661 |
| Higher/university | 58 | 74.4 | 20 | 25.6 | Ref | | | |
| | | R | Responde | ent religi | on | | | |
| Christian | 308 | 74.8 | 104 | 25.2 | 2.22 | 0.49 | 10.09 | 0.301 |
| Muslim | 4 | 57.1 | 3 | 42.9 | Ref | | | |
| Whether marrie | d respo | ondent l | have dis | cussed fa | umily pl | anning wi | th her par | tner |
| Yes | 242 | 74.9 | 81 | 25.1 | 0.54 | 0.26 | 1.12 | 0.096 |
| Can't remember | 15 | 46.9 | 17 | 53.1 | 0.16 | 0.06 | 0.42 | < 0.001 |
| No | 55 | 84.6 | 10 | 15.4 | Ref | | | |
| | Resp | ondent | willing | to have 1 | nore ch | ildren | | |
| Depend on God | 26 | 83.9 | 5 | 16.1 | 2.47 | 0.91 | 6.72 | 0.077 |
| Depend on husband | 19 | 95 | 1 | 5 | 9.02 | 1.18 | 68.84 | 0.034 |
| Yes | 139 | 67.8 | 66 | 32.2 | Ref | | | |
| No | 88 | 75.9 | 28 | 24.1 | 1.49 | 0.89 | 2.5 | 0.129 |
| | | Qualifica | | the healt | h provic | | | |
| Qualified | 147 | 80.8 | 35 | 19.2 | 1.86 | 1.17 | 2.94 | 0.008 |
| Not Qualified | 165 | 69.3 | 73 | 30.7 | Ref | | | |
| Ac | cessibi | lity and | Infrastr | ucture of | f the hea | alth facilit | у | |
| Accessible | 260 | 77.2 | 77 | 22.8 | 2.01 | 1.21 | 3.36 | 0.007 |
| Not accessible | 52 | 62.7 | 31 | 37.3 | Ref | | | |
| | | | of the fa | mily pla | | ervices | | |
| Available | 289 | 78.7 | 78 | 21.3 | 4.83 | 2.66 | 8.79 | < 0.001 |
| Not available | 23 | 43.4 | 30 | 56.6 | Ref | | | |

Table 6: Relationship between level of satisfaction and different components in family planning

Multivariable logistic regression

Six factors associated (P<0.05) to client satisfaction at bivariate analysis were included in multivariable logistic regression. Three successive iterations were performed using backward conditional method and retained four factors as shown in Table 7. Employment status was significantly associated with client satisfaction. Employed respondents were 1.90 [95% CI = 1.11 – 3.23, P=0.018] times likely to be satisfied compared to unemployed respondents. Married respondents who couldn't remember discussing family planning matters with their partners were 7.04 [95% CI = 2.14–23.20, P<0.001] likely to be satisfied compared to married respondents who did not discuss family planning matters at all with their partners. Respondents who were willing to have more children in future were 1.90 [95% CI = 1.05 - 3.46, P=0.033] likely to be satisfied compared to respondents who were not willing to have more children in the future. Availability of the family planning services in the health facility was significantly associated with client satisfaction. Respondents who found family planning services in the health facility were 3.89 [95% CI = 2.01 - 7.55], P<0.001] likely to be satisfied compared to respondents who didn't find family planning services in the health facility.

 Table 7: Predictors of client satisfaction among family planning

 clients at Kayole I dispensary and Kayole II sub district hospital in

 Nairobi Area.

| | | 95% | | | | | | | | |
|---|-------------|------------|------------|---------|--|--|--|--|--|--|
| Variables | AOR | Lower | Upper | P-Value | | | | | | |
| Employment status of the respondent | | | | | | | | | | |
| Employed | 1.9 | 1.11 | 3.23 | 0.018 | | | | | | |
| Unemployed | Ref | | | | | | | | | |
| Married respondents discussed family planning with their partners | | | | | | | | | | |
| Yes | 1.61 | 0.69 | 3.76 | 0.264 | | | | | | |
| Can't remember | 7.04 | 2.14 | 23.2 | 0.001 | | | | | | |
| No | Ref | | | | | | | | | |
| Respondent | t willing t | o have mor | e children | | | | | | | |
| Yes | 1.9 | 1.05 | 3.46 | 0.033 | | | | | | |
| Depend on God | 0.73 | 0.23 | 2.32 | 0.587 | | | | | | |
| Depend on husband | 0.12 | 0.01 | 1.16 | 0.066 | | | | | | |
| No | Ref | | | | | | | | | |
| Availability of the family planning services | | | | | | | | | | |
| Available | 3.89 | 2.01 | 7.55 | < 0.001 | | | | | | |
| Not available | Ref | | | | | | | | | |

Discussion

Improving quality of family planning services should be convenient, accessible and acceptable by clients. Improved quality of family services benefits include accessibility of information and services, clients make informed decisions and the public has more positive perception of health care and it's provider. Client satisfaction has been studied extensively globally and a number of factors including accessibility to health services, continuity of care, consultation time, waiting time, distance or proximity to health facilities and providerclient relationship have been identified as key factors correlated with satisfaction levels (San-Corrales et al., 2006, Maseko et al., 2014, Fenny et al., 2014) [31, 21, 13]. Patient satisfaction is an important measure and provide a direct indication of quality in health care. Client satisfaction is key determinant of uptake and continued use of family planning services (Blanc et al., 2002; Nketiah et al., 2009, Hameed et al., 2015) ^[8, 24, 14]. The study 74.3% client satisfaction concurs with 75.3% in an Ethopian study that examined client satisfaction with family planning services in South public health facilities (Argago et al., 2015)^[5]. In contrast, a study done in Thailand showed a higher rate of client satisfaction at 84.7% (Ny and Sermri, 2007) [26]. The high rate of client satisfaction in this study indicates high quality of care as it offers information on health providers's successes at meeting relevant client expections. According to Amin this is an important tool to evaluate administrative and planning process of health care (Amin, 2007)^[4].

The study conducted showed client satisfaction is dependent on a range of factors including characteristics of facilities, provider and client. Regarding provider characteristics, qualification of health provider was significantly associated with clients' satisfactions in family planning services. This is in agreement with studies done in Kenya (Agha, 2009)^[1] and Senegal (Assat *et al.*, 2015)^[6]. The qualification of health provider is key to patient satisfaction as they are the main source of information about health promotion and illness prevention (Porter *et al.*, 2006)^[27]. This is supported, as a client remains interested when the nurse is enthusiastic during conducting a health education session by nonverbal skills. A good nurse carefully plans the order in which to present information (Allender & Spradley, 2006)^[3].

Another important contributing factor to client satisfaction is woman's occupation. The study association between client satisfaction and occupation is in agreement with other study fndings by Edwards *et al.*, 2004 ^[11] and Chavane *et al.*, 2016 ^[10]. The study in Mozambique by Chavene *et al.* argued that employed women with salary tend to have higher levels of education and also suggested that there is an indirect association between education and level of dissatisfaction with family planning services (Chavane *et al.*, 2016) ^[10].

Making strides in client satisfaction in family planning services requires increasing availability of and access to commodities. There was an association between availability of family planning services. This is in line with good quality family planning services which helps individuals and couples to meet their reproductive health needs safely and effectively (Loha *et al.*, 2003; Fantahum *et al.*, 2005) ^[19, 12]. Availability of family planning services in terms of materials and skilled personnel predicts the service quality hence influencing client satisfaction (UN, 2007) ^[33]. Availability and quality family planning services are believed to contribute to increasing contraceptive use and declining fertility rate in developing countries. A general agreement indicates that the quality of family planning and reproductive health services positively affects contraceptive use and behavior of clients (Rama-Rao *et al.*, 2003) ^[28]. In addition, the study results were agreement with Tumnilson *et al.* who argued that client satisfaction can be enhanced by the infrastructure since they acts as avenues of enhancing privacy, stimulates sharing of more information any would ultimately increase the uptake of contraceptives (Tunnlson *et al.*, 2015).

Failure of a mother to discuss family planning issues with the spouse was found to reduce the likelihood of a mother to be satisfied with FP services by about 53.1%. Similar findings were noted in studies conducted among HIV positive women in Northern Uganda (Nattabi et al., 2011)^[23], and in Asia (Karra & Wolf, 1997) ^[16]. This could be attributed to the positive attitudes of men towards family planning services as men are knowledgeable, appreciate the benefits of family planning and are ready to support their spouses. Despite that, 15% of women did not discuss FP issues with their husbands. According to Bawah et al. this may be due to not being typical for couples to discuss family planning issues in most developing countries (Bawah et al., 1999)^[7]. There is need to involve men in reproductive health so as to address the communication barriers among couples and improve service utilization. This has been achieved elsewhere by providing men with a written invitation to attend antenatal clinic with their partners which increased number of males participating in couple-based antenatal clinic (Byamugisha et al., 2011; Mohlala et al., 2011) ^[9, 22].

Study Limitations

Only women of reproductive age 15-49 years using family planning services was selected, it will not be comprehensive enough to represent males and females who are not visiting family planning services. Since the study is facility based, it may underestimate the results related to satisfactions as it is possible that dissatisfied clients might not come to the family planning health facility and perhaps users may also show courtesy bias during the exit interview. Another important limitation is that the study was restricted in Nairobi and may not be generalized to other areas of the country

Conclusion

There is need to shift focus from increasing uptake of family planning services to satisfying unmet needs of clients. Health education on the benefits of family planning with male involvement need to be intensified.

Conflict of interest

The author(s) declare that they have no competing interests.

Authors' Contribution

GM: Conceptualized research idea, collected data, analysed and prepared the final manuscript draft.MK and PM: Designing and reviewing the final draft.

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