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Family Planning Service Satisfaction and Associated Factors Among Pills and Injectable Users in the Southeast Tigray Region of Ethiopia

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Abstract

Background: Satisfaction with family planning services has been described as a key issue in increasing contraception use. Objective: This study assessed the satisfaction of the family planning service and the associated factors among pills and injectable users in southeast Tigray Ethiopia. Design: A cross-sectional study design was used. A total of 845 female family planning users were included by systematic sampling. A p-value of <0.05 was used as a cut-off point to determine the statistical significance of associations between family planning service satisfaction and a variety of demographic and client care factors. Results: The percentage of satisfaction among women with family planning was 85.8%. Factors that were significantly associated with client satisfaction include being greeted by providers, being informed about the next consultation date, receiving information on contraceptive methods related to human immunodeficiency virus (HIV)/sexual transmission infection (STI) prevention, using written material to explain how to use a method, and a waiting time of less than 30 minutes. Conclusions Family planning service providers and health policy makers should focus on the family planning counseling component and decreasing appointment waiting times to increase service satisfaction.

Keywords: satisfaction, family planning, waiting time, Ethiopia

Introduction

Access to contraception is vital for social, economic and health improvement through increased time between births, for smaller family sizes, and by providing time for preconception care (Tsui et al., 2010). As the time interval between births increases, infant and child and infant mortality decreases (Weinreb, 2013). Client satisfaction can be defined as a personal evaluation by the patient on the health care services they received (Kaoje et al., 2015) and it is a good time to evaluate the service by clients (World Health Organization, 2000). An assessment of satisfaction is an important tool to measure the quality of health care service. The International Conference on Population and Development held in Cairo acknowledged patient satisfaction as a human rights issue and is part of their maternal and child health program to improve the accessibility and availability of modern family planning methods (United Nations, 1995).

Ethiopia adopted a population policy in 1993. The main objective of this policy was to narrow the gap between high population growth and low economic growth and to decrease the fertility rate from 7.7 births per woman in 1990 to 3.66 per woman in 2025 (Macrotrends, 2025). Additionally, the objective was to increase the contraceptive prevalence rate (CPR) from 4 % in 1990 to 55% in 2020 (Ethiopian Ministry of

Health, 2021). Despite great efforts, the target has not been met. According to the Ethiopian Demographic Health Survey (EDHS) for 2019, the fertility rate was 4.6 per woman, and CPR was 52% (Ethiopia Survey, 2019).

Failure to satisfy the satisfaction of the family planning service can result in the discontinuation of using contraception and low CPR (Hutchinson et al., 2011). Although there are many factors associated with satisfaction with family planning services, waiting time for appointments has been found to be the major contributors (Chavane et al., 2017). Common factors associated with satisfaction with family planning service satisfaction, as revealed in the literature, include age, getting contraceptive what they want, marital status (Eshetu et al., 2024), occupation, new family planning user, and convenience eservice hour (Asrat et al., 2018). A similar systematic study revealed that waiting time, privacy condition and education status are associated with satisfaction with family planning service (Geta et al., 2023).

Most family planning users in Ethiopia use short-acting contraceptives, especially pills and injectable. These have the highest discontinuation rate, which leads to a low contraceptive use (Ethiopia Survey, 2019). So, studying the satisfaction of the service among pills and injectable users is very important to increase CPR. So far, factors affecting family planning service satisfaction among pills and injectable users have not been studied in the southeast Tigray region Ethiopia. Therefore, this study was conducted to fill the gap on the satisfaction of the family planning service and associated factors among pills and injectable users.

Methods

Study Design

This study was a facility-based cross-sectional study.

Setting

The study was carried out in the southeast of Tigray, Ethiopia, where there are 25 health centers, 104 health posts, and one primary hospital. All health facilities provide family planning services. The study was conducted between January 2018 and June 2018.

Population

All pills and injectable user clients who visited selected health facilities in the Southeast Tigray Region were included in the study who visited the facilities from January to June 2018

Inclusion Criteria

All pills and injectable users from selected governmental health facility of southeast Tigray

Sample Size and Sampling Procedure

The objectives of the study are the following.

1. Family planning service satisfaction and associated factors among pills and injectable family planning users
2. Continuous rate and associated factors among pills and injectable family planning users

Sample Size Calculation

For calculating sample size, the following parameters were considered: an average satisfaction with their family planning service of 57.1% (Asrat et al., 2018), 95% confidence interval, margin of error 5%, design effect of 2 and expected non-response of 10%. Based on these parameters, the calculated sample size was 829. The continuation rate 49%(6), 95% confidence interval, margin of error 5%, design effect of 2 and expected non-response rate 10%. Based on this, the calculated sample size is 845. Since the sample size calculated for continuation is larger than the satisfaction, our sample size for this study is 845.

The health facilities were stratified into hospitals, health centers, and health posts. A hospital, five health centers, and 21 health posts from northern Ethiopia were selected by the simple random sampling technique.

Study participants from each selected health facility were selected by systematic sampling: every third short-acting modern family planning using a client was included until the final sample size was reached. If the selected participant was not eligible, the next participant was invited to join the study. The three-month average client loads for each facility prior to data collection were used to determine the proportional allocation of study subjects to each health facility and to determine the sampling interval.

Data Collection Procedures and Tool

The questionnaire was first prepared in English and then translated into Tigrigna (the local language) and then back-translated to English by a language expert to maintain the consistency of the questions.

Data were collected using a validated and structured questionnaire from family planning users and an exit interview technique was used after receiving the family planning service. The interview was conducted in a private place to avoid anxiety among study participants and to maintain confidentiality. Data on socio-demographic, family planning service-related factors, obstetric and gynecological history, family planning clinic accessibility and types of contraceptives were collected. The validity purpose questionnaire was evaluated by experts for its content and clarity. Data reliability was also ensured through data cleaning, and a pre-test was also conducted to check whether the tool is able to collect the desired information or not.

Data were collected from 20 diploma-bearing midwives who were supervised by five Bachelor of Science-bearing midwives. Training was given to both data collectors and supervisors about the purpose of the study, procedures, how to approach study participants, and data collection techniques. The pre-test was conducted on 5 % of the participants in health facilities not included in the study. The data collection process was closely supervised by the study investigators.

Client Satisfaction with their Family Planning Service: Statistical Analyses

The completed questionnaires returned were manually checked. The data were then entered into Epi data version 3.1, and then coded and cleaned. The data was then exported to SPSS version 20 for analysis. Frequencies and tables were used to summarize descriptive statistics. The outcome variables for client satisfaction with their family planning service were recorded using the satisfaction and dissatisfied classification for analysis purposes. Bivariate analysis was assessed to determine its association with service satisfaction. Variables with p values less than 0.2 in the bivariate analysis were exported to multivariate logistic regression analysis. Variables with p-values less than 0.05 in multivariate analysis were considered statistically significantly associated with satisfaction with family planning service.

Ethical Considerations

To carry out this research project, ethical approval was obtained from the Mekelle University College of Health Sciences Health Research Ethics Review Committee (ethical approval number ERC 1143/2017). An official letter was submitted to the Tigray Regional Health Bureau and to each health facility. Informal verbal consent was obtained from each study subject prior to the data collection process. Each respondent was informed about the objective of the study and its contribution to policy makers and other concerned bodies. Participants who were unwilling to participate in the study were excluded from the study. Participants were also informed that all data obtained would be kept confidential and used only for the purpose of the study.

Results

Characteristics of the Participants

Of a total of 845 female participants, the response was 98.3% (831/845). Most (82.1%) of the participants were in the 19-35 year age group. Almost all the study participants (98.2%) were Orthodox Christians. Regarding marital status, (92.2%) were married. More than a third (39.1%) of family planning users was unable to read and write. More than half of the family planning users (56.1%) were urban residents (Table 1).

Most of the participants (91.2%) had a history of pregnancy. One in ten users experienced unintended pregnancy and 2.4% of the participants had a history of STI (Table 1).

Table 1. Socio-demographic characteristics of women planning users in the northern part of Ethiopia, 2018

Variable		Frequency (%)
Age (years)	<19	49(5.9)
	19-35	682(82.1)
	>35	100(12)
Religion	Orthodox Christian	816(98.2)
	Muslim	15(1.8)
Marital status	Married	766(92.2)
	Single	48(5.8)
	Divorced	15(1.8)
	Widowed	2(0.2)
Residence	Urban	466(56.1)
	Rural	365(43.9)
Educational status	Unable to read and write	325(39.1)
	Able to read and write	94(11.3)
	Completed grade 1-8	192(23.1)
	Completed grade 9-12	176(21.2)
	High school diploma and above	44(5.3)
History of pregnancy	Yes	758 (91.2)
History of unintended pregnancy	Yes	91(11)
History of STI	Yes	20(2.4)

Family planning

Most of the family planning users (88%) used injectable contraceptives and 55.4% used them for birth spacing purposes. Sixty-one percent of the participants decided on their choice of family planning method by themselves and 88% of the users received information from health providers. Regarding the time that participants used their current method of contraception; about half of the participants (50.2%) had used their current method for more than 18 months. Ninety-four percent of the participants wanted to use contraceptives continuously in the future. In addition to the current method, 71% of the participants had experience using another method (Table 2).

Table 2. Contraceptive-related characteristics of family planning users in the southeast Tigray region, 2018

Family planning user characteristic		Frequency (%)
Types of contraceptive used currently	Injectable contraceptive	731(88)
	Pills (oral contraceptives)	100(12)
Purpose of using contraceptives	Delay births	285(34.3)
	Space births	460(55.4)
	Does not want more children	86(10.3)
Who chose the method	Self	514(61.8)
	Partner	44(5.3)
	Self and partner	273(32.9)
Source of information about family planning methods	Health provider	731(88)
	Friend	56(6.7)
	Media	44(5.3)
Length of time client used the current method in the past?	<6 moths	163(19.6)
	6-18 months	251(30.2)
	>18 months	417(50.2)
Client has the intention to continue to use current method	Yes	780(93.9)
Client has experience using a contraceptive other than current method	Yes	241(29)

Provider-User Interaction

Most of the participants (94.8%) were greeted by the provider before starting their consultation and 96% of them also had the opportunity to ask questions. Almost all (99%) of the users verified with their provider that their choice of method was appropriate given their circumstances. Almost one in ten participants did not receive information on the side effects of each method at the clinic and 76.1% heard rumors (biased information about methods) about different contraceptives. Similarly, 86.3% of participants received information on the relationship between STI/HIV transmission and different types of family planning methods (Table 3).

Table 3. Provider-user interaction characteristics among family planning users in the southeast Tigray region, 2018

Questionnaire items and response	Frequency (%)
The provider greeted you before starting the consultation	788 (94.8)
You had the opportunity to ask questions	798(96)
The provider explained if the method chosen by you was appropriate for you	823(99)
The provider informed you of the timing of the next consultation	802(96.5)
The provider asked about your current and past health status	778(93.6)
The provider informed you about the different family planning methods	777(93.5)
The provider informed you about advantages of the different methods	828(99.6)
The provider informed you about side effects of different methods	773(93)
The provider helped you choose a particular method	817(98.3)
The provider asked the clients to share any rumor about the method	199(23.9)
The provider explained how the method worked	80(96.3)
The provider told me how the method was related to transmission of STI/ Acquired Immune Deficiency Syndrome (AIDS)	717(86.3)
The provider used written material to explain family planning methods	704(84.7)

Client Satisfaction with their Family Planning Service

The majority of the participants (85.8%) were satisfied with the service received and 14.2% were not satisfied with the service provided (Table 4).

Table 4: Users' satisfaction with family planning service in southeast Tigray Region, Ethiopia

Variable	Users satisfaction	
	Satisfied N (%)	Dissatisfied N (%)
Opening hour of the clinic	795(95.8)	35(4.2)
Cleanliness of the facility	702(81.8)	128(18.2)
Length of your waiting time	682(81.9)	148(18)
Friendliness & respect received from the staff upon your arrival	728(87.7)	102(12.3)
Friendliness & respect you received from the health care provider	626(75.4)	204(24.57)
Length of time spent with health care provider	725(87.3)	105(12.7)
Quality of the advice and information	680(81.9)	150(18.1)
Cost of overall service	769(92.7)	61(7.3)
Procedure or treatment	721(86.9)	109(13.1)
Overall experience at the facility	717(86.4)	113(13.6)

Variable		Satisfied with family planning service		COR(95% CI)	AOR(95%CI)
		Yes (713)	No(118)		
Residency	Urban	402	64	1.1(0.7,1.6)	1.1(0.7, 1.76)
	Rural	311	54	1:0	
Religion	Orthodox Christian	701	115	1.5(0.4,5.4)	1.1(0.25, 4.7)
	Muslim	12	3	1:0	
Client was informed about the next consultation date and time	Yes	701	101	9.8(4.5,21)	**7.7(3.2,18.5)**
	No	12	17	1:0	
Provider greeted the clients at the beginning of the appointment	Yes	687	101	4.4(2.3,8.4)	**2.5(1.2,5.4)**
	No	26	17	1:0	
Client had the opportunity to ask questions	Yes	692	106	3.7(1.78,7.8)	1.1(0.44 ,2.7)
	No	21	12	1:0	
Provider informed client about side effects of different family planning methods	Yes	678	95	4.6(2.6,8.2)	1.22(0.5, 2.8)
	No	35	23	1:0	
Provider helped client to choose method	Yes	703	114	2.4(0.76,7.9)	1.27(0.35, 4.5)
	No	10	4	1:0	
Provider examined client during visit	Yes	518	68	1.9(1.3,2.9)	1.3(0.8, 2)
	No	195	50	1:0	
Provider explained how methods work	Yes	689	111	1.8(0.76-4.3)	1.03(0.37, 2.8)
	No	24	7	1:0	
Provider informed client about the method that will prevent HIV/STI transmission	Yes	637	80	3.9(2.5,6.3)	**2(1.2,3.6)**
	No	76	38	1:0	
Provider used written material to explain how to use the method	Yes	629	75	4.3(2.7,6.6)	**2.7(1.57,4.7)**
	No	84	43	1.0	
The amount of time a client waited for their appointment	<30 minutes	678	102	3(1.6,5.7)	**3.38(1.7,6.6)**
	>=30 minutes	35	16	1:0	

Factors Associated with Family Planning Service Satisfaction

The receiving of information about the date and time of the next consultation, the receptionist received at the beginning of the appointment, and the receiving of information about the contraceptive method related to the prevention of HIV / STI had significant associations with the satisfaction of the family planning service. Similarly, the use of written material to explain how to use the method and an appointment, a waiting time of less than 30 minutes, had significant associations with the satisfaction of the family planning service.

Users informed of the next consultation were 7.7 times more satisfied than those who were not informed about the next consultation [AOR=7.7, (95%CI, 3.2-18.5)]. Clients who were greeted by the provider were more than twice as likely to be satisfied compared to those who were not greeted by the providers [AOR=2.5, (95% CI, 1.2-5.4)].

Similarly, users who received information on methods that could prevent HIV/AIDS transmission were twice as likely to be satisfied compared to those who did not receive this information [AOR=2, (95%CI, 1.2-3.6)]. Clients whose provider used written material to show them how to use the methods were twice as likely to be satisfied compared to their counterparts [AOR=2.7(95%CI 1.57-4.7)]. Clients who waited less than 30 minutes were three times more likely to be satisfied compared to those who waited 30 minutes or more [AOR=3.38(95%CI 1.7-6.6)] (Table 5).

Table 5. Bivariate and multiple regression analysis of factors associated with family planning service in health institutions of the southeast zone of the Tigray region, 2018

Note: COR = crude odds ratio; AOR = adjust odds ratio; CI = confidence interval; bold =$p < 0.05$; 1:0 = reference category.

Discussion

Client satisfaction is an important measure of the quality of service patients receive (Kaoje et al., 2015). The results of this study showed that a large proportion of users were satisfied with the service they received. Findings from Mozambique (Chavane et al., 2017) which had satisfaction of 86%, are comparable to our findings.

A study in Mexico had similar findings, in which 81.3% of users were satisfied with the service they received (Bintabara et al., 2018). Likewise, studies from Kenya(Slater et al., 2018) and Nigeria (Kaoje et al., 2015) also agreed with this finding. However, several studies reported a lower satisfaction prevalence than our study, including a study from Jinnah Hospital in the Pakistani province of Punjab (45%) (Wambua et al., 2015), Pakistan (21%)(Rehman et al., 2015), Congo(77%), (Memon et al., 2017), Hosanna town in Ethiopia (75.3%)(Ndziessi et al., 2017), Bahirdar city, Ethiopia (66.1%) (Argago et al., 2015). Southern Ethiopia(67%) (Baruda et al., 2018) and Jigjiga, Ethiopia (41.7%)(Gebreyesus, 2019). The higher prevalence of satisfaction in this study may be due to continuing training of a provider in the family planning service. This training helps professionals improve their knowledge and skills for counseling and proper provision of contraceptive methods. Another reason may be the new national focus and commitment to the availability and accessibility of family planning for the needy population in Ethiopia (Planning TF et al., 2020).

Users who received information about the date and time of their next consultation were eight times more likely to be satisfied compared to their counterparts. This could be due to the fact that clients who are informed about when they can return to the clinic are more satisfied with the service and enable them to continue using a family planning method with satisfaction.

Family planning users who were greeted by their provider were more likely to be satisfied compared to those who were not greeted. Mozambique's findings support this finding; Low-quality provider-client interactions were significantly associated with service dissatisfaction (Chavane et al., 2017). The explanation is likely that the clients who were welcomed left the facility feeling that they were treated well (MEASURE Evaluation, 2016). Greeting is one of the six elements of family planning counseling, and this is an expression of respect and friendliness.

Clients who were informed about contraceptive methods that prevent HIV/STI transmission were twice as likely to be satisfied compared to those who did not receive this advice. There are no studies that directly support this finding, but research from Mexico shows that users who received adequate information during a visit were more likely to be satisfied as compared to their counterparts (Bintabara et al., 2018). The A User's Guide for Monitoring Quality of Care in Family Planning recommends that, in countries with high

HIV prevalence, the provider should advise clients about the relationship between HIV prevention and family planning methods (MEASURE Evaluation, 2016).

Clients who received an explanation of a contraceptive method using written material showing how to use that method were more likely to be satisfied than their counterparts. This finding is consistent with research done in Hossana, Ethiopia and Jigjiga, Ethiopia (Ndziessi et al., 2017: Gebreyesus, 2019). Similar evidence from Jordan indicated that client satisfaction increased by 70% when written material was used during counseling (Kamhawi et al., 2013). It could be that getting clarification with written material on how to use contraceptive methods is more memorable and provides greater satisfaction.

Clients who waited less than 30 minutes for service were more than three times more likely to be satisfied compared to clients who waited 30 minutes or more. This finding is supported by research done in Bahridar, Ethiopia; Clients who waited less than 30 minutes were 9.7 times more likely to be satisfied compared to clients with a waiting time of more than two hours (Argago et al., 2015). Similarly, studies from Hossana (Ndziessi et al., 2017), southern Ethiopia (Baruda et al., 2018) and Nigeria (Kaoje et al., 2015) reported similar findings. It could be that clients waiting less than 30 minutes felt more respected by the service provider and the facility. Different family planning guidelines indicated that waiting times greater than 30 minutes is not recommended (MEASURE Evaluation, 2016).

Limitation of the Study

This study does not consider the availability of different types of family planning methods in relation to client satisfaction.

Conclusions

Factors that were significantly associated with client satisfaction include being greeted by providers, being informed about the next consultation date, being given information about contraceptive methods related to HIV/sexual transmission infection prevention, use of written material to explain how to use a method, and a waiting time of less than 30 minutes. To improve service satisfaction, health care providers should provide all components of counseling to all clients, as counseling is an essential element of a quality family planning service. The waiting time at the clinic for service should be less than 30 minutes.

List of Abbreviations

AIDS: Acquired Immune Deficiency Syndrome

CPR: contraceptive prevalence rate

EDHS: Ethiopian Demographic Health Survey

HIV: Human immunodeficiency virus

STI: sexual transmitted infection

Declarations

Ethics Approval and Consent to Participate

An ethical approval for the study was obtained from the Mekelle University College of Health Sciences Health Research Ethics Review Committee (ethical approval number ERC 1143/2017). Study subjects provided their informed consent verbally to participate in the study after receiving information about the purpose of the study, the risks and benefits and their rights. For participants under age, verbal consent was obtained from their parents.

All methods were performed in accordance with the relevant guidelines and regulations or the Declaration of Helsinki.

Consent for Publication

Not applicable

Availability of Data and Materials

It is possible to share the data.

Competing Interest

The authors declare that they have no competing interests.

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