Clients' satisfaction with contraceptive counseling and associated factors among reproductive-age women visiting the public health facilities for family planning service at Jimma town, southwest Ethiopia

Abstract

Background: Clients' satisfaction is the best indicator of quality service provision and has been found to associate with continuity of care received by the client. It is usually measured through women's perceptions of services.

Objective: To assess the level of clients' satisfaction with contraceptive counseling and associated factors among reproductive-age women at the public health centers of Jimma town, southwest Ethiopia, 2020.

Method: Facility-based cross-sectional study design was conducted from April one to May one 2020. A systematic sampling technique was done to select 377 study participants. Data was collected using structured pretested questionnaires through a face-to-face interview. The collected data was entered into the Eip Data version of 3.1. The logistic regression analysis was used to investigate the association of the independent variables with clients' satisfaction. The variables with a p-value <0.25 in the bivariate analysis were subsequently entered into the final model to build a multivariable model and factors with a p-value <0.05 in the final model were considered as statistically significant predictors. The results were reported as adjusted odds ratios with a 95% Confidence Interval. The thematic analysis approach was used for the qualitative strand.

Results: Altogether 376 participated in the study; giving a 99.73% response rate. The mean age of respondents was 25 ± 4.86 years. The overall level of clients' satisfaction with contraceptive counseling was 47.1%. Unable to read and write (AOR=3.879 [1.682,8.946]), adequacy of the information (AOR=2.671 [1.221,5.842]), tailoring key information (AOR=2.212 [1.367,3.579]) and residing within 30 minute distance (AOR=3.765 [1.528,9.277]), were independent predictors of clients' satisfaction with contraceptive counseling.

Conclusion and recommendation: Clients' satisfaction with contraceptive counseling was low. Improving adequacy of the information given during counseling and tailoring key information to meet the specific need of the client is recommended to improve clients' satisfaction.

Keywords: contraceptive counseling, satisfaction, quality service, family planning, clients' perception, Jimma University

Introduction

World Health Organization (WHO) defines family planning as "the ability of individuals or couples to determine the number of children and realize their predetermined number of children and spacing of their children and timing of their births. This could be accomplished through the use of effective contraceptive methods and the management of involuntary infertility [1].

In 2017, 63% of married or in-union women of reproductive age (15-49 years) group were using some form of contraceptive method in the world, but the utilization was very low particularly in Africa (36%) [2]. In Ethiopia, even though the percentage of women in the union who use a modern contraceptive method has increased over the years, the FP program is still a challenge. A trend analysis of contraceptive prevalence rates in SSA, since the launching of the 2012 London Summit on Family Planning in 2019 showed that the annual rates of changes in modern contraceptive prevalence rates in Ethiopia among all women of reproductive age

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were low (not significant), which is 0.92. Even contraceptive use was rising rapidly in Ethiopia during the pre-Summit period [3].

Clients' satisfaction has long been acknowledged as the primary determinant of uptake and continuation of contraceptive methods, and other reproductive health services [4]. Thus, its assessment is an imperative input to improve the quality of the health system and also provides an opportunity for monitoring and evaluation from a customer viewpoint which provides feedback for health care providers and policymakers [5]. Generally, clients' satisfaction is a proxy direct indicator of the quality of care in (FP) clinics including contraceptive counselling [6]. It is an important measure of the quality of service as it provides information on the provider's success in meeting expectations of what is more important to the client and is an important tool to evaluate administration and planning the process of health care. In Ethiopia, to the best of investigator knowledge most of the studies that addressed clients' satisfaction with contraceptive counseling are usually measured through women's perceptions of services [7,8], and few if none have involved comparing methods of assessment particularly in this study area. To sum up, this study was conducted to assess clients' satisfaction with contraceptive counseling and associated factors among reproductive-age women at the public health centers of Jimma town, southwest Ethiopia, 2020.

Family planning services are very crucial to improving health, human rights, economic development, and slowing population growth [9]. However, according to the 2015 United Nations (UN) report, around 303,000 maternal deaths were reported globally with a maternal mortality ratio of 216 per 100,000 live births, of which a larger proportion occurred in sub-Saharan Africa 546 per 100,000 live births [10]. In Ethiopia, according to a 2016 (EDHS) report, 412 pregnancy-related deaths per 100,000 live births were occurred, which is almost twice that global [11]. Different studies have indicated that up to 40% of maternal deaths could have been mitigated through the use of (FP) services [12].

Globally, up to 225 million women who want to prevent pregnancy are not using effective and safe contraceptive methods [13]. Most of the women with an unmet need for contraceptives live in 69 of the poorest countries [14]. This unmet need is due to both a rapidly growing population and a shortage of FP services [13]. Despite FP services are widely known and provided for free in the premises of Ethiopian's Ministry of Health (EMH), in our country the unmet need for contraception has reached 22%, and the total fertility rate remained high at 4.6 per woman [11], with current contraceptive users among married women of 42% [15].

The (EMH) developed the National Family Planning Costed Implementation Program (NFPCIP) which was officially launched in 2015/16 to increase contraceptive utilization and reduce the unmet need for contraceptives [16]. Besides the above efforts, the family planning service must consider clients' satisfaction, which has not been considered much. Because accessibility of health service facilities will not necessarily guarantee the utilization of health services; utilization also depends on the client's willingness to access the service and their satisfaction toward the service [17]. Clients' satisfaction is an important measure of the quality of health care services because it gives information on the provider's success at meeting those client values. The assessment of clients' satisfaction adds a significant 'consumer' perception of evaluations. Feedback from clients can influence the whole quality improvement agenda within the institution or organization [18]. Thus, this study aimed to assess clients' satisfaction with contraceptive counselling and associated factors among reproductive-age women at the public health centres of Jimma town, southwest Ethiopia; 2020.

Methods and Materials

■ Study Area and study period

This study was conducted from April one to May one, 2020 G.C at Jimma town's health centres which were determined based on the average number of clients flow per day.

Jimma is located 357 km southwest of Addis Ababa, and it has a total surface area of 4,623 hectares. The total projected population of the Jimma town from the 2007 Central Statistical Agency (CSA) census report is 210,908. The town has government-owned facilities under the Ministry of Health (MOH) includes 2 hospitals (1 regional), and four public Health Centers (HC), and 91 different private health facilities. The estimated non-pregnant fertile women for each HC include 13,569 for Mandera Kochi HC, 11,233 for Jimma HC, 8,551 for Higher 2 HC and 5,940 for Bacho Bore HC. Bacho

Bore HC was excluded from the study because of its transformation into a quarantine centre for Corona Virus. So that study was limited to three health centres. The average number of family planning user client flows per day is 14 for Higher 2 HC, 16 for Jimma HC, and 20 for Mandera Kochi HC.

■ Study design

The institution-based cross-sectional study design was conducted from April one to May one, 2020 G.C.

■ Population

Source population: All women of the reproductive age group (15-49 years) who were attending family planning clinics at the public health centres of Jimma town were included.

Study population: Sampled reproductive age group (15-49 years) of women who were attending family planning clinics at the public health centres of Jimma town were included in the study.

■ Eligibility criteria

Inclusion criteria: All women of the reproductive age group (15-49 years) who were attending family planning services for the quantitative, and had at least three visits for family planning.

Exclusion Criteria: Severely sick, inability to speak or those who have hearing impairment were excluded.

■ Sample size determination

The sample size was calculated using a single population proportion formula by considering the following assumption: p=62.8% is the proportion of clients' satisfaction with contraceptive counselling from a similar study [7], confidence interval of 95%, and a degree of precision of 5% was used. A contingency of 5% was added to the sample size for non-responders.

$$n = \frac{(Z\ \alpha/2)^2\, p(1-p)}{d^2}$$

$$\frac{(1.96)^2\, 0.628(1-0.628)}{(0.05)^2} = 359$$

The calculated sample size was 359 women. Due to the expected non-participating rate (5%), the final sample size was 377 women.

■ Sampling technique

Study participants were selected randomly from the registration book **(FIGURE 1)**.

■ Variables of study

Dependent variable: Clients' satisfaction with contraceptive counselling.

■ Independent variables:

i. Socio-demographic factors (age, marital status, educational status, occupation status of respondent, religion, ethnicity).

ii. Facility-related factors (distance from home, time of consultation, waiting time, clinic sanitation).

iii. Client provider interaction (Privacy, the information given about contraceptive method, the information given about other methods, education material, the status of decision, partners' attitude, respect/courtesy).

■ Operational definition and definition of terms

Clients' satisfaction: A person's overall orientation towards a total experience of health care. It comprises both cognitive and emotional facets and relates to previous experiences, expectations, and social networks [17].

Clients' overall satisfaction level: First the overall satisfaction was computed by adding the mean score of 12 satisfaction items with 5 points Likert scale (ranging from strongly disagrees to strongly agree). The threshold score for satisfaction was determined using the demarcation threshold formula, which is (total highest score-total lowest score)/2+Total lowest

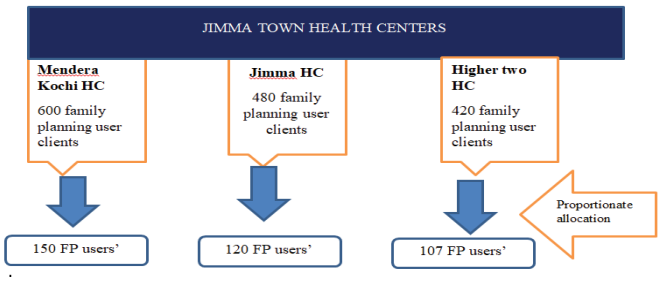

FIGURE 1. Study participants were selected randomly from registration book.

score [19,20]. Clients' overall satisfaction was dichotomized as "satisfied" (if the score is equal and above the threshold score of satisfaction) coded as "1", and "not satisfied" (if the score is less than the threshold score of satisfaction) coded as "0".

Quality of contraceptive counselling: For the observational checklist, for quality of contraceptive counselling items, the items reported to be done were scored "1" and the items not done were scored "0". The scores of the items were summed up for a total score of 20 points. Scores of ≤ 9 (≤ 45%) were classified as poor, scores of 10-15 (50%-75%) classified as moderate and ≥ 16 (≥ 80%) were classified as good [21].

Contraceptive counselling: is a type of client-provider interaction that involves two-way communication between a health care provider and a client to confirm or facilitate informed decision making by the client, or assist the client address problems or concerns [22].

■ Data collection procedures and quality control

Data collection tools/instrument: Structured questionnaire was adapted from a user's guide for monitoring the quality of care in family planning [23] and tools to assess family planning counseling: observation and interview [24] and from previous studies for an exit interview. The questionnaire was prepared in English and then used after being translated into local languages (Afan Oromo and Amharic). The tool was organized into four parts: the first part contains socio-demographic characteristics, client-provider interaction related, facility-related, and the final part is the satisfaction rating tool having 12 items that have five-point Likert scales varying from strongly agree to strongly disagree. Checklist for direct observation adapted from the above references [23]. Observation checklists were used to assess the process components of care which included both technical quality of care and interpersonal relationship between provider and client. Clients who were observed when receiving contraceptive counseling were asked to participate in an exit interview. A semi-structured open-ended guiding questionnaire was developed from the relevant literature for qualitative strands.

Data collection procedure and method: Data was collected through face-to-face interviews of clients at the exit of the family planning service clinic. Moreover, the time for the completion of the client exit interview was ranged from 20-30 minutes which is determined after the pretest.

Data Collection personnel: Data collectors and supervisors were Midwives selected from nearby health centers based on their previous data collection experiences. Four female data collectors with Bachelor of Science (B.Sc.) in Midwifery and two supervisors who can speak the local language (Oromia and Amharic) were recruited. Three data collectors were used for exit interviews of clients and one was used for direct observation. Data collection orientation was provided to data collectors and supervisors for one day by the principal investigator on the study instrument, consent form, how to interview and data collection procedure. The supervisors were responsible to assist data collectors, checking the completeness, and validity of questioners filled by data collectors on daily basis. Female trained in-depth interviewers were recruited and oriented to conduct in-depth interviews at places and times convenient for the participants.

Data quality control: Quality of data was maintained through the following measures: Translation of questionnaire to local languages (Afan Oromo and Amharic) and then retranslated to English by another person who is blind to the original questionnaire to check its consistency. Orientation was given for data collectors and supervisors on the purpose of the study, and the data collection process by the principal investigator. A pretest was carried out on 5% of the sample size [11] randomly selected FP clients at Agaro health center a week before the actual data collection. Then the data was checked for any ambiguity, Cronbach's alpha was 0.86 for all items that measure the outcome variable (Cronbach's alpha coefficient >0.7 is acceptable) [25]. Internal consistency of satisfaction measuring the five-point Likert scale in previous research showed Cronbach's alpha value of >0.8 [8]. For direct observation, to minimize the Hawthorn effect the observer was oriented to observe from the least obtrusive corner of the room dressed in a gown appropriately, the first five observations were discarded, and also a female observer conducted the observation. Finally, data cleanup and cross-checking were done after the actual data collection before the analysis by the principal investigator.

Data entry and analysis procedure: Data was first checked for completeness, consistency,

the corresponding code number was written carefully at each margin, and entered to Epi data version 3.1, and then exported to Statistical Package for Social Science (SPSS) version 26 for analysis. Frist the overall clients' satisfaction with contraceptive counseling, which is the dependent variable, is determined by adding a mean score of 12 satisfaction items that have a five-point Likert scale. The threshold score for satisfaction was determined using the demarcation threshold formula, which is {(total highest score-total lowest score)/2}+Total lowest score. Clients' overall satisfaction was dichotomized to satisfied, and not satisfied. Descriptive statistics and binary logistic regression analysis were performed. In the bivariate logistic regression analyses, those variables with a p-value <0.25 were entered into the final model to identify factors independently associated with clients' satisfaction. Multivariable logistic regression analysis that used a backward stepwise method of variable selection was applied to describe the relative effect of independent variables on overall clients' satisfaction. The association between dependent and independent variables was determined using an odds ratio with a 95% confidence interval. Multicollinearity among variables was checked by using the variance inflation factor. None of the variables had an inflation factor >10 (i.e. VIF<3.107 in this study). The goodness of fitness of the model was checked by Hosmer and Lemeshow assumption test (p value=0.822 in this study) which indicates that the model was adequately fitted. p-value <0.05 was considered statistically significant for both bivariate and multivariable logistic regression analysis. Finally, the result of the analysis was presented in texts, tables, and graphs as required.

Ethical clearance

Ethical approval and clearance were taken from the Institutional Review Board (IRB) of Jimma University Institute of health before actual data collection. Written letters, including the aim of the study, were obtained from the School of Nursing and Midwifery, Jimma University, and submitted to each health center. Similarly, formal approval from each health center was taken and secured before proceeding to data collection. Verbal consent was obtained from the study participants after explaining the study objectives and procedures for exit interviews and in-depth interviews. Also, verbal consent was obtained from care providers and clients before they are observed for direct observation. Confidentiality of the study was assured clearly for every woman participating in the study by avoiding writing identifying information including the name of participants. The study subjects were informed that participation voluntarily and the right to refuse from being participate was considered at any time.

Results

Out of 377 subjects approached, 376 have participated in the study that gives a response rate of 99.73%. Also, 113 clients were included in the direct observation, and also an in-depth interview was done on seven clients who had at least three times visits for family planning service.

■ Socio-Demographic Characteristics of Respondents

This study revealed that nearly half, 186 (49.5%) of the respondents were aged between 25 and 34 years, and while those aged between 15 and 24 years constituted 169 (44.9%) of the total. The mean age of respondents was 25 ± 4.86 years. One hundred and ten (29.3%) of the respondents had primary education alone. One hundred and seventy-seven (47.1%) were housewives, and only forty-six (12.2%) were government employed **(TABLE 1)**.

■ Client-provider interaction related factors

This study revealed that among 376 women counseled for contraceptives, 274 (72.9%) had a history of visiting health centers for family planning services. While more than three forth, 291 (77.4%) of the respondents wanted to use injectable contraceptives before they got contraceptive counseling, the majority 295 (78.5%) of the participants decided to use injectable. Regarding the reproductive intention of the women in the future, 144 (38.3%) of counseled women reported that they had discussed their reproductive intention with the care provider (almost in line and in agreement with direct observation result 45 (39.8%). More than half, 204 (54.3%) of the respondents reported that the care provider told them some methods were more favorable than other methods.

In terms of decision status, 140 (37.2%) of the women reported shared decisions, while 42 (11.2%) husband driven **(TABLE 2)**.

TABLE 1. Socio-demographic characteristics of reproductive-age women attending family planning service at the public health centres of Jimma town from April 1 to May 1, 2020 (n=376).

Characteristics	Category	Frequency	Percentage (%)
Age category	15-24	169	44.9
	25-34	186	49.5
	35-49	21	5.6
Educational status	Unable to read and write	95	23.3
	Read and write	23	6.1
	Primary	110	29.3
	Secondary	101	26.9
	Higher education	47	12.5
Religion	Orthodox	108	28.7
	Muslim	186	49.5
	Protestant	79	21
	Catholic	3	0.8
Ethnicity	Oromo	227	60.4
	Amhara	62	16.5
	Gurage	14	3.7
	Tigre	1	0.3
	Others	72	19.1
Marital status	Single	8	2.1
	Married	363	96.5
	Divorced/separated	4	1.1
	Widowed	1	0.3
Occupational status	Gov't employed	46	12.2
	Private employed	36	9.6
	Merchant	31	8.2
	Daily labourer	86	22.9
	Housewives	177	47.1

Others=Yemi, Kafa, Kullo, Wolyta

■ Facility related variables

Regarding the duration of contraceptive counseling time, 198 (52.7%) of the respondents perceived that the duration was too short while 142 (37.8%) felt that it was about right. Approximately two-thirds 267 (71.0%) of the respondents perceived that the sanitary condition of the clinic was good. A significant proportion, 138 (36.7%) of the respondents waited for <30 min before being attended to by a service provider while 54 (14.4%) waited for more than 1h **(TABLE 3)**.

■ Satisfaction level of family planning user clients with contraceptive counseling

The demarcation threshold for overall satisfaction was found to be 42. A client with a total score equal to and greater than 42 was categorized as satisfied, and those with a total score of less than 42 were categorized as not satisfied. Generally, 177 (47.1%) clients scored 42 and above and were categorized as satisfied. The remaining one hundred and ninety-nine (52.9%) of the clients were not satisfied. The maximum total satisfaction score was 58 and the minimum was 26 score **(FIGURE 2)**.

Out of 376 clients, 32 (5.6%), 21 (5.6%), 23 (6.1%), and 31 (8.3%) were strongly agreed with the competency of the care provider in providing contraceptive counseling, waiting time was not too long, adequacy of the information, and felt free to ask a question during counseling respectively. On the other hand, 45 (12.0%), 68 (18.1%), and 37 (9.8%) of the participants disagreed with the behaviors

TABLE 2. Client-provider interaction related variables among reproductive-age women attending family planning service at the public health centres of Jimma town from April 1 to May 1, 2020 (n=376).

Variables				Frequency	Percentage (%)
Ever visited this site for family planning services before today	Yes	-	-	274	72.9
	No	-	-	102	27.1
Method did you want when you came here? before consultation	Pill	-	-	7	1.9
	IUD	-	-	13	3.5
	Injectable	-	-	291	77.4
	Implant	-	-	65	17.3
Methods provider discussed with you	Pill	Yes	-	225	59.8
		No	-	151	40.2
	IUD	Yes	-	247	65.7
		No	-	129	34.3
	Injectable	Yes	-	274	72.9
		No	-	102	27.1
	Implant	Yes	-	249	66.2
		No	-	127	33.8
Provider and you talk about reproductive intentions	Yes	-	-	144	38.3
	No	-	-	232	61.7
Provider tell some methods more favourably than others	Yes	-	-	204	54.3
	No	-	-	172	45.7
Provider tailors key information to your particular needs	Yes	-	-	194	51.6
	No	-	-	182	48.4
Status decision	Shared decision making		-	140	37.2
	Provider driven		-	42	11.2
	Patient driven		-	41	10.9
	Husband driven		-	153	40.7
Provider asked your worries and concern about contraceptive method	Yes	-	141	-	37.5
	No	-	235	-	62.5
Feel comfortable asking questions during the session	Yes	-	231	-	61.4
	No	-	145	-	38.6
Information given to you during your visit today	Too little	-	242	-	64.4
	Too much	-	90	-	23.9
	About to right	-	44	-	11.7
Privacy was maintained during counseling	Yes	-	283	-	75.3
	No	-	93	-	24.7
Provider treats client with respect/courtesy	Yes	-	308	-	81.9
	No	-	68	-	18.1

of the provider, easiness to get clinic site, and recommending other friends to health facility respectively **(TABLE 4)**.

■ Factors affecting clients' satisfaction with contraceptive counseling service

A multivariable logistic regression, variables like educational status, tailoring key information to the particular needs of the client, adequacy of information given during counseling, asking client's worries and concerns, health center distance from the home, sanitation of the clinic, and waiting time were significantly associated with clients' satisfaction.

The educational status of the respondents was a significant predictor of clients' satisfaction, in that, respondents who were unable to read

TABLE 3. Distribution of respondents by health facility-related variables among reproductive-age women attending family planning service at the public health centres of Jimma town from April 1 to May 1, 2020 (n=376).

Characteristic		Frequency	Percentage (%)
Time of consultation	about to right	142	37.8
	Too short	198	52.7
	Too long	36	9.6
Health centre distance from home	<30 min	181	48.1
	30 min-1h	156	41.5
	>1 h	39	10.4
Clinic sanitation	Yes	267	71
	No	109	29
Waiting time	No, wait	81	21.5
	<30 min	138	36.7
	30 min-1 h	103	27.4
	>1 h	54	14.4

FIGURE 2. Percentage distribution of respondents by their overall level of satisfaction among reproductive-age women at the public health centers of Jimma town from April 1 to May 1, 2020.

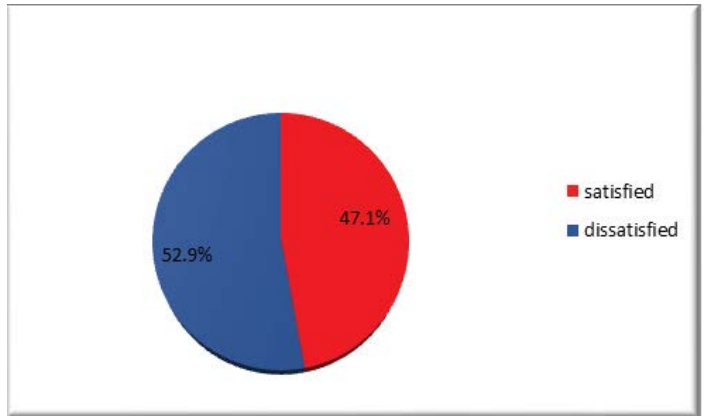

TABLE 4. Level of satisfaction of family planning user clients towards contraceptive counselling among reproductive-age women attending family planning service at the public health centres of Jimma town from April 1 to May 1, 2020 (n=376).

Characteristics	1	2	3	4	5
	No (%)	No (%)	No (%)	No (%)	No (%)
I would recommend this health facility to someone else	21 (5.6)	37 (9.8)	27 (7.2)	268 (71.3)	23 (6.1)
I would like to come back to this health facility again	1 (.3)	15 (4.0)	15 (4.0)	314 (83.5)	31 (8.2)
Is the provider competent to provide family planning counselling?	27 (7.2)	58 (15.4)	64 (17.0)	195 (51.9)	32 (8.5)
Provider would not give you anything harmful	3 (0.8)	28 (7.4)	75 (19.9)	238 (63.3)	32 (8.5)
Provider could be trusted with a secret	9 (2.4)	45 (12.0)	84 (22.3)	212 (56.4)	26 (6.9)
The clinic site is easy to get	5 (1.3)	68 (18.1)	52 (13.8)	221 (58.8)	30 (8.0)
Waiting time was not too long	16 (4.3)	82 (21.8)	71 (18.9)	186 (49.5)	21 (5.6)
I felt free to ask all questions	29 (7.7)	83 (22.1)	63 (16.8)	170 (45.2)	31 (8.2)
Clinic area is clean	30 (8.0)	95 (25.30	68 (18.1)	159 (42.3)	24 (6.4)
I was provided with all the information I needed	21 (5.6)	109 (29.0)	46 (12.2)	177 (47.1)	23 (6.1)
When you receiving counseling the health providers paid more attention to your privacy	12 (3.2)	40 (10.6)	56 (14.9)	238 (63.3)	30 (8.0)
All my health need were met today	2 (.5)	26 (6.9)	36 (9.6)	283 (75.3)	29 (7.7)

1. Strongly disagree; 2. Disagree; 3. Uncertain; 4. Agree; 5. Strongly agree

and write were 3.879 times more likely satisfied with contraceptive counseling as compared to those who attended higher education and above (AOR=3.879 [1.682,8.946]). Clients who received adequate information during contraceptive counseling were 2.671 times more likely satisfied with contraceptive counseling as compared to those who acquired too little information (AOR=2.671 [1.221,5.842]). Similarly, tailoring key information to the particular needs of clients during counseling was also a significant predictor of clients' satisfaction (AOR=2.212 [1.367,3.579]).

The other important predictor of clients' satisfaction with contraceptive counseling service was distance. Clients who reside in 30 minute and 30min-1hr walking distance range to the health center were 3.765 and 3.140 times more likely to be satisfied with contraceptive counseling service as compared to those living above the 60-minute walking distance range (AOR=3.765 [1.528,9.277]), (AOR=3.140 [1.284,7.676]) respectively. Clients who did not have to wait at all to see a provider were 2.937 times more likely satisfied with contraceptive counseling as compared to those who waited for more than 1hr (AOR=2.937 [1.263,6.829]). Concerning clinic sanitation, clients who perceived good clinic sanitation were 56.0% less likely satisfied with contraceptive counseling as compared to the counterpart (AOR=0.440 [0.260,0.745]). But the occupational status, telling some methods more favorably than others, the status of decision, being comfortable to ask questions, discussing reproductive intention, duration of consultation time, and treating clients with respect and courtesy were

TABLE 5. Multivariable binary logistic regression analysis result for variables associated with clients' satisfaction with contraceptive counseling among reproductive-age women attending family planning service at the public health centers of Jimma town from April 1 to May 1, 2020 (n=376).

Variables		Client satisfaction level		COR(95%CI)	AOR(95%CI)
		satisfied	dissatisfied		
Educational status	Unable to read and write	63 (66.3%)	32 (33.7%)	3.474 (1.672, 7.220)	3.879 (1.682, 8.946)***
	Read and write	8 (34.8%)	15 (65.2%)	0.941 (0.331, 2.664)	0.711 (0.223, 2.265)
	Primary	47 (42.7%)	63 (57.3%)	1.317 (0.651, 2.664)	1.154 (0.533, 2.497)
	Secondary	42 (41.6%)	59 (58.4%)	1.256 (0.615, 2.567)	1.286 (0.591, 2.797)
	Higher education and above	17 (36.2%)	30 (63.8%)	1	1
Provider tailors key information to your particular needs	Yes	110 (56.7%)	84 (43.3%)	2.248 (1.486, 3.400)***	2.212 (1.367, 3.579)***
	No	67 (36.8%)	115 (63.2%)	1	1
Provider asked your worries and concern about contraceptive method	Yes	85 (60.3%)	56 (39.7)	2.359 (1.539, 3.616)	2.239 (1.348, 3.720)***
	No	92 (39.1%)	143 (60.9%)	1	1
Information given to you during your visit today	Too little	109 (44.7%)	135 (55.3%)	1	1
	Too much	39 (43.3%)	51 (56.7%)	0.947 (0.582, 1.542)	0.770 (0.443, 1.339)
	About right	29 (69.0%)	13 (31.0%)	2.763 (1.370, 5.570)***	2.671 (1.221, 5.842)**
Health center distance from home	<30 min	94 (51.9%)	87 (48.1%)	3.602 (1.618, 8.015)***	3.765 (1.528, 9.277)***
	30 min-1 hr	74 (47.4%)	82 (52.6%)	3.008 (1.340, 6.752)***	3.140 (1.284, 7.676)**
	>1 hr	9 (23.1%)	30 (76.9%)	1	1
Clinic sanitation	Yes	114 (42.7%)	153 (57.3%)	0.544 (0.0347, 0.854)***	0.440(0.260, .745)***
	No	63 (57.8%)	46 (42.2%)	1	1
Waiting time	No wait	52 (64.2%)	29 (35.8%)	4.259 (2.032, 8.925)***	2.937 (1.263, 6.829)**
	<30 min	69 (50.0%)	69 (50.0%)	2.375 (1.212, 4.654)**	2.540 (1.207, 5.347)**
	30 min -1 hr.	40 (39.2%)	62 (60.8%)	1.532 (0.756. 3.106)*	1.744 (0.802, 3.793)
	>1 hr	16 (29.6%)	38 (70.4%)	1	1

*=p-value <0.25, **=p-value <0.05, ***=p-value <0.01

TABLE 6. Observational checklist for contraceptive counseling quality assessment among reproductive-age women attending family planning service at the public health centers of Jimma town from April 1 to May 1, 2020 (n=113).

Assessment tools	Not done	Done
Provider demonstrates good counseling skills (composite)		
Did provider asked open ended question	45 (39.8%)	68 (60.2%)
Did provider encourage the client to ask question	70 (61.9%)	43 (38.9%)
Did provider discuss client concern with contraceptive method	58 (51.3%)	55 (48.7%)
Did provider assures privacy and confidentiality	8 (7.1%)	105 (92.9%)
Did provider ask client reproductive intention	68 (60.2%)	45 (39.8%)
Did the provider discuss which method she would prefer	14 (12.4%)	99 (87.6%)
Did provider treats client with respect and courtesy	13 (11.5%)	100 (88.5%)
Did provider tailors key information to the particular need of clients"	77 (68.1%)	36 (31.9%)
Did the provider explain how to use the chosen method	61 (54%)	52 (46%)
Did provider gives accurate information on the side effect of method	80 (70.8%)	33 (19.2%)
Discuss that method don't provide protection against STI	92 (81.4%)	21 (18.6%)
Did provider gives instruction on when to return	18 (15.9%)	95 (84.1%)
Client participates actively in discussion and selection of method (is "empowered		
Did provider asked the marital status"	32 (28.3%)	81 (71.7%)
Did provider asked the number of living children	55 (48.7%)	58 (51.3%)
Did provider asked client for desire of more children	67 (59.3%)	46 (40.7%)
Did provider asked timing of next pregnancy	77 (68.1%)	36 (31.9%)
Did provider asked history of pregnancy complication	84 (74.3%)	29 (25.7%)
Did provider asked partner attitude toward contraceptive method"	32 (28.3%)	81 (71.7%)
Did provider asked the client about multiple sexual partners	92 (81.4%)	21 (17.6%)
Did provider use visual aid during counseling	113 (100%)	-

not statistically significant factors of clients' satisfaction with contraceptive counseling at the multivariable logistic regression analysis **(TABLE 5).**

■ Evaluation of contraceptive counseling service quality by observational checklist

Overall, the quality of contraceptive counseling was poor. Fifty-seven (50%) were considered poor, 49(43.4%) were considered moderate and only 7 (6.2%) were considered good. Only forty-five (39.8%) of observed clients were asked about reproductive intention. Just 46%, 19.2%, and 18.6% of clients were counseled on all three important aspects of their method: how to use the method, possible side effects, and methods protection against STI respectively **(TABLE 6)**.

Discussion

This study revealed that the overall satisfaction of clients with contraceptive counseling was 47.1%. This result is significantly very low compared to other reports of 88% in the United States, 83% in Jordan, 85% in Egypt, and 97% in Indonesia [26-29]. This difference might be due to disparity in socio-demographic characteristics of the study participants, facility infrastructures, and poor contraceptive counseling skills in this study [6]. However, it was lower than other studies conducted in St. Paul's Hospital, Addis Abeba, and Asella in which client's satisfaction was 95.7% and 62.8% respectively [7,8]. The difference might be attributed to the fact that this study was conducted at the public health centers whereas that of St. Paul's Hospital, Addis Abeba, and Asella was conducted at the hospital level where there is a relatively adequate number of competent health professionals and supplies.

This study further revealed the predictors of clients' satisfaction with contraceptive counseling. Accordingly, educational status, tailoring key information to the particular needs of the client, adequacy of information given during counseling, asking client's worries and concerns, health center distance from the home, sanitation of the clinic, and waiting time were

independent predictors of clients' satisfaction with contraceptive counseling.

The educational status of the participants was found to be significantly associated with clients' level of satisfaction with contraceptive counseling, in that, clients who were unable to read and write were more likely satisfied with contraceptive counseling as compared to those who attended higher education and above. It is similar to a study conducted in Senegal [30]. In contrast, the report from a study conducted in Jordan showed that as educational level increase the odd of satisfaction with counseling also increase [27]. The reason for the discrepancy might be due to different socio-demographic characteristics among study participants.

In this study, the adequacy of information provided was significantly associated with clients' satisfaction. Clients who received adequate information were more satisfied when compared to those who didn't receive sufficient information. This is consistent with studies conducted in Kucha District, Southern Ethiopia, and Indonesia [28,31].

This study also showed that clients who were asked their worries and concern about contraceptive methods were 2.239 more likely to be satisfied with contraceptive counseling. This is also comparable with what has been reported from a study conducted in Addis Abeba, and Asella [7,8]. Waiting time is also a significant determinant of client satisfaction in this study. This finding is similar to a study conducted in Senegal and Northern Nigeria [30,32]. Though it is difficult to identify cause and effect; all these findings showed that clients who perceived short waiting times tend to have better satisfaction with contraceptive counseling services.

This study also revealed that distance from health facilities has also a relation with client satisfaction. It is similar to the studies conducted in Asella [7].

The results from this study indicated that the sanitation condition of the clinics was significantly associated with the client's satisfaction which is comparable with a study conducted in Northern Nigeria [32].

This study also revealed that the client's satisfaction with contraceptive counseling was significantly associated with tailoring key information to the particular needs of a specific client. Due to the lack of studies that assessed the association between these factors and clients' satisfaction with counseling, it becomes difficult to compare this finding. However, the possible reason might be a good care provider who determined a client's needs based on her clinical history and reproductive intentions will know how much information to cover in the session, and ideally, the client will leave a visit feeling that she did not receive too little or too much information, but just the right amount [23].

■ Strengths of the study

The study involved both quantitative and qualitative methods of data collection supplemented by direct observation to maximize the reliability of the collected data.

■ Limitation of the study

Recall bias was there because clients may not remember the sequence and content of events during the counseling**.** Courtesy bias may also be introduced due to clients' fear of jeopardizing the service they will get in the future (interviews were conducted in the clinic). Hawthorne effect may be introduced in the direct observation. The cross-sectional nature of the study fails to explain the causality assumption. The study concerned a representative sample of health centers, so the results of this study should not be applied to FP services in hospitals and private clinics.

Conclusion

This study concludes that the satisfaction of clients with contraceptive counseling was low. The study also identified factors associated with the satisfaction of clients with contraceptive counseling. The independent predictors associated with clients' satisfaction were educational status, tailoring key information to the particular needs of the client, adequacy of information given during counseling, asking the client's worries and concerns, health center distance from the home, sanitation of the clinic, and waiting time. Many of these findings are substantiated with in-depth interview results.

- **Availability of Data and Materials**

  The spreadsheet data supporting the findings of this work is available at the hands of the corresponding authors

- **Ethics Statement**

  All procedures performed in studies involving human participants were following the ethical standards of the institutional and/or national research committee and with the declaration and its later amendments or comparable ethical standards. Before the commencement of the study, ethical approval was secured from the Jimma University Ethical Review Board. Written informed consent was obtained from all individual participants included in the study.

- **Consent for publication**

  The purpose of the study was explained to the study participants at the time of data collection and verbal consent was secured from each participant before the start of data collection. Confidentiality was ensured by not including names or other identifiers in the data collection tool. The right of the participants to refuse participation or not to answer any of the questions were respected.

Conflict of Interests

All authors declared that they have no conflict of interests.

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Authors' Contribution

Tolesa Gemeda, Desta Workneh, and Gadisa Bekele conceived and designed the protocol. Tolesa Gemeda contributed to developing a proposal, data analysis, and checking the draft. Tolasa Gemeda and Gadisa Bekele prepared manuscript. Both authors read and approved the final paper.

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