

## Quality of Family Planning Services Provided from Selected Health Centers of Morang District of Nepal: A Cross-sectional Study

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### Abstract

**Background:** Quality family planning (FP) services are essential for reducing unintended pregnancies, improving maternal and child health outcomes, and achieving Sustainable Development Goal 3.7. This study aimed to assess client satisfaction with FP services at Primary Health Care Centers (PHCCs) in Morang district and identify associated socio-demographic factors. **Methods:** A descriptive cross-sectional study was conducted from July to August 2018 among 196 female FP service clients recruited proportionally from seven PHCCs in Morang district. Data were collected using a structured questionnaire covering socio-demographic information and satisfaction indicators. Descriptive statistics (mean, SD, frequency, percentage) and linear regression were performed to examine associations between satisfaction and socio-demographic variables. **Results:** Participants' mean age was 29.67 years, with the largest proportion aged 25–35 years (66.3%). Most respondents were Hindu (80.1%), and Brahmin/Chhetri (36.2%) was the dominant caste group. Housewives constituted 48% of the sample. Mean satisfaction scores were highest among those aged  $\geq 35$  years (38.91, SD=6.72) and respondents with primary education or below (39.36, SD=6.82). Regression analysis showed that non-Hindu participants reported significantly higher satisfaction (Coef = 4.22,  $p=0.007$ ), whereas Janajati participants reported lower satisfaction than Brahmin/Chhetri (Coef = -3.30,  $p=0.029$ ). No significant associations were observed with age, education, or occupation. **Conclusion:** Client satisfaction with FP services in Morang was significantly influenced by religion and caste rather than age, education, or occupation. Addressing social inequalities and ensuring inclusivity of marginalized groups is essential for improving FP service quality and equity in Nepal.

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**Keywords:** FP services; Client satisfaction; Primary Health Care Centers; Reproductive health; Service quality; Equity in healthcare

## **Background**

Quality is a critical aspect of any service, especially in healthcare, where it is defined as providing technically competent, effective, and safe care that contributes to the well-being of the client (Tafese, Woldie, & Megerssa, 2013). FP services play a crucial role in enabling couples to manage the timing and number of their children, thereby aiding in the stabilization of the global population (Ayano Wakjira, 2017). They are also a cost-effective intervention to improve maternal and child health outcomes (Mpunga et al., 2017). The Bruce framework of quality in FP includes six indicators: choice of methods, information given to clients, technical competence, client-provider interpersonal relations, mechanisms for follow-up and continuity, and the appropriate constellation of services (Hong, Montana, & Mishra, 2006).

Approximately 40% of pregnancies worldwide are unintended due to ineffective or non-use of contraception, or method failure, and around half of these pregnancies end in abortion. Improving access to reproductive health is central to the process of development, as reflected in Sustainable Development Goal 3.7, which calls for universal access to FP by 2030, and the FP2020 Initiative (Wendot et al., 2018). The FP program started in developing countries in the 1960s to enhance prospects for socioeconomic development by reducing population growth (Shrestha, Shrestha, & Ghimire, 2012). In Nepal, FP services help reduce maternal morbidity and mortality by decreasing the number of pregnancies among all women, reducing the number of pregnancies among high-risk women, reducing the number of unwanted pregnancies that might otherwise end in abortion, and improving child health (Pant & Pandey, 2019; Shrestha et al., 2012)

FP is a key initiative of the Government of Nepal, under the Ministry of Health, and is regarded as a part of the reproductive health package as well as essential health care services within the Nepal Health Sector Program II (2010-2015), National FP Costed Implementation Plan 2015-2021, Nepal Health Sector Strategy 2015-2020 (NHSS), and the Government of Nepal's commitments to FP2020 (Sapkota, Bhusal, & Acharya, 2021). FP information and services are offered through government agencies, social marketing initiatives, non-governmental organizations, and private sector entities in Nepal. Temporary FP methods are provided through various health facilities, and long-acting reversible contraceptive (LARC) services are available at limited PHCC and health

posts. Sterilization services are provided at static sites or through scheduled “seasonal” or mobile outreach services(Bro, 2014; Wickstrom, Yanulis, Lith, & Jones, 2013)

Process (provider's adherence to providing excellent FP services), result (client's overall happiness with services), and structure (people, guidelines, equipment, medicine, and consumables) all influence the quality of FP services at the health facility and client satisfaction (Ontiri, Kabue, Biesma, Stekelenburg, & Gichangi, 2021; Puri, Moroni, Pearson, Pradhan, & Shah, 2020). The service readiness status of the health facility does not significantly influence the quality of FP services or client satisfaction. Clients who were counseled on a FP method were more likely to receive quality FP service compared to those who were not counseled(Chakraborty et al., 2019; Chang et al., 2019). Similarly, services received from a provider with the opportunity for promotion were more likely to be of higher quality (Fox et al., 2018). Compared to those who lived closer to PHC, those who resided farther away were less likely to be satisfied.

This study aims to investigate the reasons behind client satisfaction with the FP services they received, particularly at PHCs at Morang District. The study was focus on the availability of FP methods and the overall satisfaction of the clients. The findings of this study will help identify areas for improvement and ensure that the FPservices provided and meet the needs of the community.

## **Methods**

### **Study site**

The study was conducted in the Morang district of Koshi province of Nepal, which is located in Eastern part of Nepal. It is an Outer Teri district, bordering Jhapa to the east, Dhankuta to the north, Sunsari to the west, and Bihar, India, to the south. Morang has one metropolitan city, and 17 local units, and comprising huge number of health institutions.

### **Study Design and Sampling**

The study aimed to identify the determinants of client satisfaction with FP(FP) services provided in Government Primary Health Centers in Morang District. A descriptive cross-sectional study design was used for data collection. This study was conducted in 7 PHCCs of Morang district, with an equal proportionate sample of 28 respondents from each PHCC. In the time of data collection there were 7 PHCC in Morang district. The sample size was calculated using a proportional base statistical formula ( $n=Z^2PQ/d2$ ), resulting in a total sample size of 196.

### Data collection tools technique

A structured questionnaire was used to collect information from female clients seeking FP services at the selected PHCCs. The structured questionnaire consisted of three parts: socio-demographic information, FP client satisfaction questions. Data collection was conducted from July 4 to August 3, 2018, using a self-administered questionnaire sending at each PHCC.

### Ethical Consideration

The study was conducted after obtaining approval from the ethical review board of Purbanchal University College of Medical and Allied Sciences and the concerned PHCCs of Morang district. Informed verbal consent was obtained from individual respondents, and the confidentiality of the information gathered was maintained.

### Data Management and Analysis

After data collection, all data were checked for completeness, edited, coded, and entered into computer-based software for analysis. SPSS version IBM 28 was used for data analysis, applying appropriate statistical tools such as, descriptive analysis mean & SD of satisfactions and, linear regression of total satisfaction with demographic variable.

### Results

Table 1 shows that, the survey included 196 participants from Morang district, with average age of 29.67 years. The largest age group was 25-35 years (66.3%), followed by less than 25 years (21.9%). In terms of education, 39.8% were primary and below, 34.7% had secondary level, and 25.5% had bachelor level or higher. The most common caste/ethnic group was Brahmin/Chhetri (36.2%), followed by Janajati (29.2%), Madhesi/Tarai caste (20.9%), and Dalit (13.8%). Hinduism was the dominant religion (80.1%). Housewife was the primary occupation for 48% of respondents, while 29.1% were Self Employed/business and 23% were government job. Tab 1: Socioeconomic distribution of the study population

Socio-demographic variable	N	%
Age		
Less than 25	43	21.9
25-35 years	130	66.3
35 and above	23	11.7
Mean age (years)	29.67	

<b>Education</b>		
Primary and below	78	39.8
Secondary level	68	34.7
Bachelor and above	50	25.5
<b>Religion</b>		
Hindu	157	80.1
Others then Hindu	39	19.9
<b>Caste</b>		
Brahmin/ Cheetri	71	36.2
Madeshi	41	20.9
Dalit	27	13.8
Janajati	57	29.1
<b>Occupation</b>		
Government/private service	45	23.0
Self Employed/businesss	57	29.1
Housewife/ Student	94	48.0
<b>Total</b>	<b>196</b>	<b>100.0</b>

Table 2 shows the mean score of satisfaction question items. Clients reported higher satisfaction with accessibility factors such as the distance to the service center (mean = 2.24) and the ease of

**Tab 2: Mean score of satisfaction**

SN	Statement	Mean score	SD
1	The PHC (clinic) site is easy to get.	2.16	1.062
2	Appropriateness of distance of the service centre	2.24	1.113
3	PHC hour is convenient	1.98	0.72
4	Opening time of the PHC	1.76	0.495
5	Agree on the cost of service or treatment	1.26	0.451
6	Availability of health workers.	1.86	0.608
7	Satisfied with the hospitality of health workers or Service Providers	1.94	0.684
8	Satisfied with the level of skill of the service provider	1.92	0.64
9	Satisfied are you with the information you received from the providers	1.92	0.572
10	Sufficient consultation time to discuss your need	2.08	0.643
11	Satisfied with the methods available at the centres	2.08	0.73
12	Information given about the methods is sufficient	1.85	0.67

13	Service-providing days are suitable for you	2.11	0.813
14	Satisfied with the level of privacy that you received	1.85	0.677
15	Satisfaction involvement in decision-making of FP services	1.8	0.613
16	Satisfied with waiting time	2.13	0.753
17	The waiting room has posters with messages on family planning	2.2	0.865
18	Satisfied with the cleanliness of the centre	1.94	0.551
19	Come back for the FPservice	1.64	0.613
20	Recommend FPservices to other women	1.66	0.6

reaching the PHC site (2.16). Lower satisfaction levels were observed with cost (1.26), privacy (1.85), willingness to return (1.64), and recommending services (1.66). Moderate satisfaction was noted for waiting time (2.13), consultation time (2.08), and the availability of methods (2.08). Overall, clients expressed higher satisfaction with accessibility and convenience compared to affordability, privacy, and future service utilization.

Table 3 present the similar mean scores across age groups, with the highest mean score observed among participants aged 35 years and above (38.91, SD=6.72). Participants with primary

Table: 3 Descriptive analysis of satisfaction level total score (continuous) with demographic variables

<b>Socio-demographic variable</b>	<b>N</b>	<b>Mean</b>	<b>SD</b>
<b>Age</b>			
Less than 25	43	38.2093	6.66032
25-35 years	130	38.3385	6.13486
35 and above	23	38.913	6.72115
<b>Education</b>			
Primary and below	78	39.359	6.82047
Secondary and above	68	38.0882	6.38032
Bachelor and above	50	37.24	5.08122
<b>Religion</b>			
Hindu	157	37.8981	6.34902
Others then Hindu	39	40.3077	5.7361
<b>Caste</b>			
Brahmin/ Cheetri	71	38.6479	5.7721

Madeshi	41	37.9512	7.9308
Dalit	27	38.2963	6.8265
Janajati	57	38.386	5.424
<b>Occupation</b>			
Government/private service	45	37.1778	5.55669
Self Employed/business	57	38.8421	5.33449
Housewife/ Student	94	38.6702	7.09595

education or below had higher mean scores (39.36, SD=6.82), while those with a bachelor's degree or above reported the lowest mean score (37.24, SD=5.08). Non-Hindu respondents had higher mean scores (40.31, SD=5.74) compared to Hindus (37.90, SD=6.35), and caste-wise means were comparable across groups. In terms of occupation, self-employed/business participants had the highest mean score (38.84, SD=5.33), while government/private service holders had the lowest mean score (37.18, SD=5.56)

Table: 4 Association of satisfaction level total (Continuous) with demographic variable

Socio-demographic variable	Coef (B).	P Value	95% CI of B	
			Lower limit	Upper limit
<b>Age</b>				
Less than 25	1			
25-35 years	0.05929	0.958	-2.1852	2.30375
35 and above	-0.5624	0.739	-3.8835	2.75883
<b>Education</b>				
Primary and below	1			
Secondary and above	-0.9976	0.364	-3.1606	1.16539
Bachelor and above	-1.3344	0.282	-3.7757	1.10682
<b>Religion</b>				
Hindu	1			
Others then Hindu	4.21864	0.007	1.18418	7.2531
<b>Caste</b>				
Brahmin/ Cheetri	1			
Madeshi	-1.3987	0.274	-3.9127	1.11533
Dalit	-0.7175	0.623	-3.5957	2.1606
Janajati	-3.2985	0.029	-6.2615	-0.3356
<b>Occupation</b>				
Government/private service	1			

Self Employed/business	1.65048	0.216	-0.9699	4.27087
Housewife/ Student	1.4445	0.245	-1.0003	3.88927
Note: R-squared = 0.0665				

Table 4 shows the association between satisfaction and socio-demographic variables. Participants belonging to religions other than Hindu were more likely to report the satisfaction (Coef = 4.22,  $p = 0.007$ , 95% CI: 1.18–7.25), while those from the Janajati caste were less likely compared to Brahmin/Chhetri (Coef = -3.30,  $p = 0.029$ , 95% CI: -6.26 to -0.34). No significant associations were found for age, education, or occupation categories.

### Discussion

This study aims to assess the quality of FP services at PHCC in Morang District. Quality FP services are essential for individuals and couples to meet their reproductive health needs effectively and safely. Factors contributing to high satisfaction levels include easy access to PHC sites, appropriate distance to service centers, adequate consultation time, availability of various methods, service-providing days, and informative posters in the waiting room. Non-Hindus express higher satisfaction levels compared to Hindus, while Janajati individuals are less satisfied. The high proportion of Hindu and Brahmin/Chhetri respondents also reflects the demographic composition of Morang district, though the notable representation of Janajati and Madhesi/Terai castes is consistent with the ethnic diversity of eastern Nepal (Gurung, 2019).

The study found modest variations in satisfaction scores across age, education, occupation, and religion. Interestingly, participants with primary education or below reported higher satisfaction compared to those with higher educational attainment. This finding echoes results from other South Asian contexts, where lower educational groups often demonstrate higher reported satisfaction or well-being, potentially due to lower expectations or limited comparative reference points (Biswas-Diener & Diener, 2001; Easterlin, 2010). In contrast, individuals with bachelor-level education or above may have greater aspirations, exposure, and awareness of opportunities, which can heighten dissatisfaction when expectations are unmet (Veenhoven, 1996).

Religion emerged as a significant predictor of satisfaction, with non-Hindu respondents reporting higher satisfaction compared to Hindus. Previous studies in Nepal and other South Asian countries suggest that religious affiliation can influence subjective well-being, often mediated by community networks, spiritual practices, and cultural values (Koenig, 2012; Upadhyay, 2018). The higher satisfaction among minority religious

groups in this study could indicate stronger social cohesion or resilience within these communities, though further qualitative research is warranted to explore these dynamics.

Caste differences also played a notable role, with Janajati respondents reporting significantly lower satisfaction compared to Brahmin/Chhetri. This finding is consistent with prior evidence suggesting that structural inequalities, historical marginalization, and differential access to resources can shape subjective well-being among ethnic minorities and disadvantaged castes in Nepal (Bennett et al., 2008; Subba, 2014). Although Nepal has made policy efforts toward inclusion and equity, persistent social and economic disparities may continue to affect satisfaction levels among marginalized groups.

Occupation-wise differences were observed but not statistically significant. Self-employed participants had slightly higher satisfaction scores compared to those in government jobs. Previous studies have suggested that self-employment may enhance satisfaction through greater autonomy, flexibility, and control over one's work environment (Binder & Coad, 2013). However, the lower satisfaction among service holders may reflect bureaucratic challenges, job stress, or lack of opportunities for upward mobility within formal employment sectors in Nepal (Shrestha, 2017).

Overall, the results highlight the salience of cultural and social identity factors—particularly caste and religion—in shaping perceptions of satisfaction, even more than age, education, or occupation. This aligns with sociological perspectives suggesting that in collectivist societies such as Nepal, identity markers like caste and religion remain central determinants of social experience and subjective well-being (Inglehart & Welzel, 2005).

## **Conclusion**

This study was significantly influenced by religion and caste, rather than age, education, or occupation. The findings suggest the need for targeted interventions to address structural inequalities and promote the inclusion of marginalized caste groups to reduce disparities in satisfaction and overall well-being. Policies aimed at enhancing quality of life should consider cultural and social dynamics, including the influence of religion and caste, in addition to economic and educational factors. Future research should explore these findings further using larger, multi-district samples, longitudinal study designs, and qualitative methods to understand the mechanisms linking socio-demographic factors to satisfaction.

**Strengths and Limitations:** The study has some limitations. Firstly, due to a small sample size, the results of this study may not be generalizable to the entire population of Nepal. Secondly, the study was conducted in 7 PHCCs of Morang district. Thirdly,

this study was undertaken to fulfill the requirements of a Master's in Public Health at Purbanchal University College of Medical and Allied Sciences.

**Funding:** Due to academic research, there is no funding for the research.

**Disclaimers:** The authors are solely responsible for the views expressed in this publication, which do not necessarily represent the decisions, policies, or views of the authors' affiliated organizations.

**Author Contributions:** Mamata is responsible for proposal design, data collection, filtering, data analysis, and provided feedback on the manuscript development. Barsha and Ritu drafted the first version of the manuscript. Ghanashyam is responsible for proposal design, data collection. Bishnu is responsible in data analysis. All authors reviewed and read the manuscript before submission.

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