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NARRATIVE REVIEW

Quantifying Satisfaction: An Analysis of Family Planning Services for Married Women (15–49) in Karachi's Private Clinics

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ABSTRACT

Background:
Client satisfaction is a vital component of quality reproductive healthcare, influencing both contraceptive uptake and continued use. In Pakistan, despite growing reliance on the private health sector, limited research has explored client perspectives, especially among married women in urban settings. This study aims to assess satisfaction levels among married women of reproductive age (15–49 years) receiving family planning (FP) services at private clinics in Karachi.

Methods:
A cross-sectional client exit survey was conducted across six private FP clinics located in different urban areas of Karachi. A total of 600 married women (100 per clinic) were interviewed using a structured questionnaire that captured socio-demographic data, FP method uptake, and satisfaction levels on an 11-point Likert scale. Descriptive statistics were computed, and non-parametric tests—including the Kruskal-Wallis and Mann-Whitney U tests—were applied to compare satisfaction across clinics.

Results:
The findings revealed high overall satisfaction with FP services. Nearly 89% of respondents rated their satisfaction between 8 and 10, with DHA receiving the highest rating (100% scored 10), and Korangi displaying the most variation in satisfaction. Statistically significant differences were observed across clinics (Kruskal-Wallis $H = 223.91$, $p < 0.001$). DHA significantly differed from all other clinics ($p < 0.001$ in each pairwise comparison), indicating exceptional service quality. Korangi also differed significantly from most clinics, suggesting inconsistencies in service delivery. Non-significant differences were found between PECHS, Gulshan, New Karachi, and Nazimabad in some comparisons, implying a relatively uniform standard of service among these sites.

Conclusion:
While client satisfaction with private FP services in Karachi is generally high, substantial differences exist between clinics. Clinics such as DHA and New Karachi exemplify best practices, whereas facilities like Korangi require targeted improvements. These results underscore the importance of continuous quality monitoring and using client feedback to inform policy and programmatic decisions.

Keywords: Client satisfaction, family planning, Karachi, clinics, reproductive health, cross-sectional survey.

Layman Summary

This study looked at how satisfied married women in Karachi are with family planning services from six private clinics. Researchers interviewed 600 women and found that while most were happy—especially at clinics like DHA and New Karachi—some clinics, like Korangi, had mixed reviews. Women rated their satisfaction from 0 to 10, and the scores varied significantly between clinics. These results show that while many clinics provide excellent care, others need improvement. Ensuring all women receive high-quality, respectful, and informative services can help increase the continued use of family planning and improve overall community health.

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INTRODUCTION

Family planning is recognized as one of the most health-promoting and cost-effective activities in public health and development. It has the potential to reduce poverty and hunger, avert around 30% of maternal deaths and 10% of child deaths[1]. Estimates indicate that if all women having unmet need used a modern contraceptive method, 52 million unintended pregnancies could be averted each year and the number of unsafe abortions would decline by 15 million[2]. Expanding access to family planning services can effectively meet the need for contraception and thus save and improve women's and children's lives and greatly contribute in achieving Sustainable Development Goals[3,4]. However, increasing access alone would not bridge this gap. In fact, lack of sufficient focus on quality of services may also explain the slow progress in achieving Sustainable Development Goals (SDGs) in many developing countries[5]. Quality of care has long been recognized as an important factor that influences contraceptive acceptance, uptake and continued utilization[6] . Moreover, satisfied clients are more likely to continue contraceptive use, return to the same provider and recommend the services to others in their community[7]. In contrast, poor quality of care, long waiting time and inadequate information about contraception impedes women's use of FP services[8]. Thus, providing client-centred quality services is critical for effectively meeting couples' family planning and reproductive health needs and enhancing program sustainability.

Research evidence shows that good quality of care in family planning programs results in positive outcomes such as higher clients' satisfaction, increased knowledge, and more effective and longer use of contraceptives[6]. Studies have demonstrated that client satisfaction with services is a key determinant of uptake and continued utilization of family planning services while dissatisfaction with the quality of services – with the exception of desire to become pregnant – is the main reason for contraceptive discontinuation[9]. Recent recommendations from World Health Organization (WHO) brought quality of care back to the forefront of family planning policy and programs and it is also the cornerstone of the WHO' right-based approach to family planning[10].

Country Context

The country lags far behind on almost all development indicators, particularly with regards to maternal and child health[11]. Total fertility rate is 3.8 and on average, Pakistani women still have to bear one child more than they desire. Contraceptive prevalence rate has risen slowly, from 30% in 2007 to 35% in 2013. However, this increase is mainly due to increase in traditional and short term method usage. Moreover, a staggering 20% of couples have an unmet need for family planning despite their desire to space or limit births. There is a stark disconnect between the type of contraceptive method being used and the purpose behind it.

Sadly, the care provided to women at the public and private health facilities is poor. Two-thirds of the women are not informed about possible side effect, even more are not informed what to do in case of experiencing side effects. And, importantly 70% of the public sector and 75% of the private sector clients are not informed about wide range of contraceptive methods. Not surprisingly, this results in high rates of unintended pregnancies and unsafe abortions. In addition, a huge number of women (37%) discontinue contraceptive use within a year of initiating contraceptive use mainly due to health concerns[12].

Rationale of the research

Despite global and national efforts to expand family planning (FP) services, Pakistan continues to struggle with high fertility rates, low contraceptive prevalence, and significant disparities in reproductive health access—especially in urban low-income settings. A critical yet often overlooked component of reproductive health programs is client satisfaction, which serves as a proxy for service quality and a predictor of method continuation.

Most existing studies in Pakistan have either focused on public sector services or have lacked granular, client-level data from diverse urban centers. Furthermore, the demographic group of married women aged 15–49—particularly those in their early reproductive years—represents a key population for long-term FP outcomes, yet remains underexamined in private clinical settings.

This study aims to fill that gap by systematically evaluating client satisfaction and contraceptive method uptake across six distinct private health facilities in Karachi. The private sector plays a growing role in reproductive health service delivery, and understanding how clients experience and evaluate these services is crucial for quality improvement, policy formulation, and scaling successful service delivery models.

By comparing satisfaction levels and method preferences across socioeconomic and geographic boundaries, this research seeks to generate actionable insights that can guide resource allocation, training, and community engagement strategies within FP programs in Pakistan and similar urban environments.

OBJECTIVES OF THE RESEARCH

To assess the socio-economic and demographic characteristics of clients served by private clinics, explore the family planning services they opt for, and measure their level of satisfaction with the services received."

LITERATURE REVIEW

Client satisfaction has increasingly emerged as a central metric in evaluating the effectiveness and sustainability of family planning (FP) programs. Research underscores that the quality of care—including counseling, method availability, privacy, and provider attitude—plays a pivotal role in influencing contraceptive adoption and continuation[13,14]. Clients who receive respectful, informative, and timely services are more likely to continue using contraception and recommend the services to others[7].

In many developing countries, including Pakistan, the gap between contraceptive awareness and actual use has been attributed not only to cultural barriers but also to low service quality in both public and private sectors. For instance, a study by Tumlinson et al. (2013) highlighted that inadequate information about contraceptive options and poor provider-client communication were among the top reasons for dissatisfaction and discontinuation.

The World Health Organization (2014) has emphasized a rights-based approach to family planning, placing client satisfaction at the center of service delivery reforms. High-quality services that are accessible, acceptable, and responsive to client needs have been linked with improved health outcomes and reduced unmet need for contraception.

In the context of Pakistan, the Pakistan Demographic and Health Survey (PDHS) 2012–13 revealed that 37% of women discontinue contraceptive use within the first year—often citing dissatisfaction or health concerns. Furthermore, more than 70% of women reported not receiving adequate counselling about method side effects, underscoring the urgent need for improved service delivery standards.

Despite the growing role of private sector clinics in urban reproductive healthcare, there remains limited empirical research examining their performance from the perspective of client satisfaction. This study builds on international frameworks and local evidence to evaluate how well private FP clinics in Karachi meet the expectations of their clients, particularly among young married women—a key demographic for future contraceptive sustainability.

Static clinics: Static clinics are located in urban of Karachi and offer a comprehensive set of high-quality and affordable FP services including short-term, long-term, and permanent methods. These clinics are run by a team of eight individuals including a service provider (medical doctor), two paramedics, a counselor, a receptionist, a center manager, an office attendant, and a driver. The facility is comprised of five to six rooms including the reception area, counseling room, waiting hall, procedure room, changing area, and recovery room. Every visiting client follows a defined path to see the primary care provider. The average client flow is two per day with a range of one to 10 clients daily.

RESEARCH METHODOLOGY

Research Design:

The client exit interview is a cross-sectional survey, which conducted on six family planning and reproductive health clinics in Karachi. The survey is administered to clients after they have received services from these clinics.

Sampling:

A total of 600 interviews conducted in six private family planning and reproductive health clinics in Karachi. As per the sampling methodology hundred number of respondents interviewed at each clinic. All respondent married women of age 15-49 will be interview in study. The sample size was calculated using the standard formula for estimating proportions:

$$n = (Z^2 * p * q) / d^2,$$

with Z = 1.96 (for 95% CI), p = 0.5, q = 0.5, and d = 0.042, resulting in approximately 605; thus, 600 was considered statistically adequate and logistically feasible.

To reduce selection bias, participants were recruited using a consecutive sampling approach during standard clinic hours. Only clients who had completed their visits were approached to ensure service experience was fresh in memory. Social desirability bias was mitigated by employing trained external data collectors unaffiliated with the clinics.

Questionnaire:
The study adopted a standardized questionnaire. The questionnaire administered to clients by experienced data collectors, who are not staff at those facilities. Approximately, 10-15 minutes time taken by the enumerator to fill each questionnaire. It contains the following sections 1) Interview and site information, 2) Service use, 3) Counselling, 4) Demographics, 5) Client Satisfaction.

Quality Control Measures
To ensure data quality, field teams underwent a two-day training program on research ethics, questionnaire administration, and digital data entry using ODK. Supervisors conducted real-time checks and reviewed 10% of submitted forms daily. Discrepancies or incomplete records were flagged and resolved through re-verification where needed.

Data Collection and Processing
Data were collected electronically using Open Data Kit (ODK) and exported to SPSS Version 23 for analysis. Before analysis, data underwent a rigorous cleaning process:
·Removal of incomplete or duplicate records
·Logical consistency checks (e.g., age vs. number of children)
·Coding of open-ended responses
Satisfaction ratings were treated as ordinal variables, while socio-demographic data were categorized as nominal or ordinal depending on the variable

Ethical Approval and Considerations:
Ethical approval for this study was obtained from the Research and Development Solutions Institutional Review Board (RADS-IRB), based in Islamabad, Pakistan. All participants provided informed verbal consent prior to data collection. They were informed about the purpose of the study, assured of the confidentiality and anonymity of their responses, and notified that participation was voluntary. No personally identifiable information was recorded, and respondents had the right to withdraw at any stage without consequence.
Enumerators received training on research ethics and were instructed to maintain respondent privacy and ensure data security throughout the study

Statistical Analysis and Assumptions:
Descriptive statistics (frequencies, percentages, means, and medians) were computed for demographic and service use data.
Given the non-normal distribution of satisfaction scores and their ordinal nature, non-parametric tests were used:
·Kruskal-Wallis H test to assess differences in satisfaction across all six clinics.
·Mann-Whitney U tests for post-hoc pairwise comparisons.
These tests do not assume homogeneity of variance or normality, making them suitable for analyzing Likert-scale data. A p-value of < 0.05 was considered statistically significant.

RESULTS:

The analysis targeted six clinics in different areas of Karachi, each collecting feedback from approximately 100 clients. The objective was to analyze multiple aspects of the data, including socio-demographic characteristics, FP services, satisfaction level, concerns and preferences, awareness, and outcomes, while identifying statistically significant differences using p-values. These insights aim to support evidence-based decision-making and the development of context-specific strategies tailored to each area's unique profile.

Demographics:
Table 1 showcases the socio-demographic characteristics below. The age distribution across centers showed a statistically significant difference ($p < 0.05$). Overall, most respondents (66.9%) were aged 25–34, 18.8% were aged 35 and above, and 14.2% were aged 15–24. DHA had a unique profile, with 100% of its respondents falling within the 25–34 age group, indicating a relatively younger, adult demographic. In contrast, New Karachi had the highest proportion of younger respondents aged 15–24 (41.2%), while Nazimabad had a larger share of older participants aged 35 and above (36.0%). The overall median age was 30 years, but this varied by center, with Gulshan (32 years) and Nazimabad (33 years) showing higher medians compared to both New Karachi and DHA (28 years). These differences suggest that programs targeting youth versus older adults may need to be geographically tailored.
Educational attainment also differed significantly across the centers ($p < 0.05$). The largest overall group (44.8%) had completed secondary, vocational, or technical education. However, DHA again stood out, with 100% of its respondents falling in this category and no representation in any other level. In contrast, Korangi had the highest concentration of individuals with non-formal (17.0%) or only primary education (16.0% with some primary and 25.0% with completed primary), highlighting stark educational disparities. A notable 22.1% of the total respondents had some form of tertiary or higher education, largely concentrated in Nazimabad (46.0%), New Karachi (40.2%) and PECHS (29.4%). These findings emphasize the unequal access to education across Karachi's neighborhoods and its potential impact on awareness and decision-making.
The average number of living children across all centers was 3, though individual center averages were lower. DHA had the lowest average (1), while PECHS, New Karachi, Gulshan, Nazimabad, and Korangi reported similar averages (2). Most respondents (52.2%) had 1–2 children, but a significant share (42.1%) had 3–4 children. The proportion of respondents with 5 or more children was relatively low (5.6%) but notable in Gulshan (14.9%) and PECHS (9.8%). The significant variation ($p < 0.05$) in family size reflects underlying cultural and economic influences and suggests differing needs for maternal and child health services by region.
Socioeconomic status, assessed through wealth quantiles, varied sharply across the six centers ($p < 0.05$). Most respondents (38.5%) fell into the 'rich' category overall, followed by 29.6% in the 'middle' and 23.0% in the 'richest' DHA had the highest concentration in the 'richest' category (68%), while Korangi showed the highest proportions in the 'poor' (16.0%) and 'poorest' (8.0%) categories. PECHS and New Karachi also had a relatively high representation among the wealthier groups. These patterns underline significant economic disparities, which are likely to influence access to services, health outcomes, and social behavior, necessitating center-specific interventions.

FP Method Received
The following figures illustrate the uptake of family planning methods, showing both the overall average outcomes and the individual results for each of the six clinics for better clarification. These visual representations allow for a comparison of contraceptive methods used across the clinics, highlighting significant trends and patterns.

Table.1: Socio-demographic characteristics

Socio-Demographic characteristics	PECHS N(%)	New Karachi N(%)	Gulshan N(%)	Nazimabad N(%)	DHA N(%)	Korangi N(%)	Overall Average N(%)	P-Value
Age								
15-24 years	16(15.7%)	42(41.2%)	3(3.0%)	9(9.0%)	0(0.0%)	16(16.0%)	86 (14.2%)	
25-34 years	64(62.7%)	40(39.2%)	71(70.3%)	55(55.0%)	100(100%)	75(75.0%)	405 (66.9%)	
35+ years	22(21.6%)	20(19.6%)	27(26.7%)	36(36.0%)	0(0.0%)	9(9.0%)	114 (18.8%)	**0.000**
Median Age								
Median age (years)	31	28	32	33	28	29	30	
Education level								
None / non-formal	4(3.9%)	0(0.0%)	6(5.9%)	0(0.0%)	0(0.0%)	17(17.0%)	27(4.5%)	
Some primary	10(9.8%)	0(0.0%)	9(8.9%)	0(0.0%)	0(0.0%)	16(16.0%)	35 (5.8%)	
Completed primary	4(3.9%)	0(0.0%)	13(12.9%)	0(0.0%)	0(0.0%)	25(25.0%)	42(6.9%)	
Some secondary, vocational or technical	24(23.5%)	0(0.0%)	30(29.7%)	18(18.0%)	0(0.0%)	24(24.0%)	96(15.9%)	**0.000**
Completed secondary, vocational or technical	30(29.4%)	61(59.8%)	26(25.7%)	36(36.0%)	100(100%)	18(18.0%)	271(44.8%)	
Some tertiary or higher	30(29.4%)	41(40.2%)	17(16.8%)	46(46.0%)	0(0.0%)	0(0.0%)	134(22.1%)	
Number of living children								
Average number of living children	2	2	2	2	1	2	2	
Children 1 to 2	50(49.0%)	61(59.8%)	33(32.7%)	37(37.0%)	100(100%)	35(35.0%)	316 (52.2%)	**0.000**
Children 3 to 4	42(41.2%)	41(40.2%)	53(52.5%)	63(63.0%)	0(0.0%)	56(56.0%)	255 (42.1%)	
Children 5 or more	10(9.8%)	0(0.0%)	15(14.9%)	0(0.0%)	0(0.0%)	9(9.0%)	34 (5.6%)	
Wealth Quantile								
Poorest	0(0.0%)	4(3.9%)	2(2.0%)	1(1.0%)	0(0.0%)	8(8.0%)	15 (2.5%)	
Poor	1(1.0%)	10(9.8%)	6(5.9%)	6(6.0%)	0(0.0%)	16(16.0%)	39 (6.4%)	
Middle	21(20.6%)	27(26.5%)	30(29.7%)	51(51.0%)	0(0.0%)	50(50.0%)	179 (29.6%)	**0.000**
Rich	54(52.9%)	54(52.9%)	47(46.5%)	20(20.0%)	32(32.0%)	26(26.0%)	233 (38.5%)	
Richest	26(25.5%)	7(6.9%)	16(15.8%)	22(22.0%)	68(68.0%)	0(0.0%)	139 (23.0%)	

Figure 1: Family Planning Method Uptake (Overall)

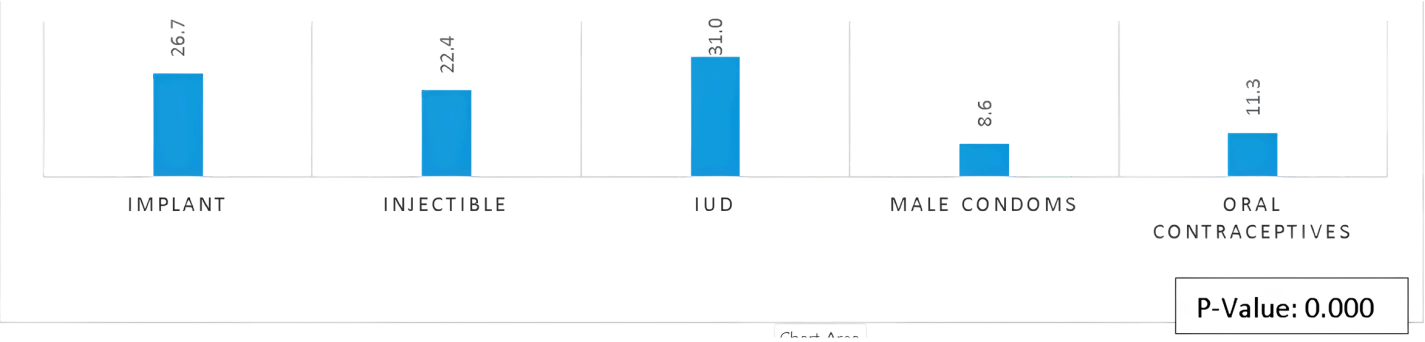


Figure 1, titled "Family Planning Method Uptake," illustrates the overall average distribution of contraceptive methods used by clients. The most commonly used method was the Intrauterine Device (IUD) at 31.0%, followed by Implants (26.7%) and Injectables (22.4%). Oral contraceptives (11.3%) and male condoms (8.6%) were less frequently used. The observed differences in family planning method uptake were found to be statistically significant (p = 0.000), indicating meaningful variation in preferences or availability across centers.

Figure 2 illustrates the distribution of contraceptive methods used by clients at the PECHS clinic. The most commonly used method was Injectables at 45.5%, followed by the Intrauterine Device (IUD) at 36.4%, and Oral contraception at 13.6%. Implants were used less frequently (4.5%), while male condoms were not used at all (0.0%). The differences in contraceptive method uptake at PECHS were found to be statistically significant (p = 0.000), indicating clear variation in client preferences or method availability.

Figure 2: Family Planning Method Uptake (PECHS)

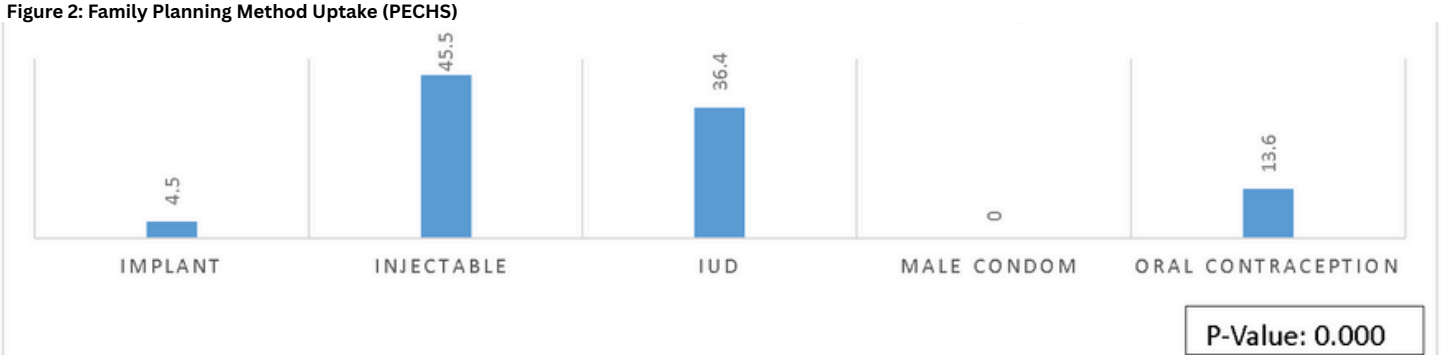


Figure 3 illustrates the distribution of contraceptive methods used by clients at the New Karachi clinic. The two most used methods are the Intrauterine Device (IUD) and Oral Contraception, each accounting for 50% of usage. Other methods, such as Implants, Injectables, and Male Condoms, were not used by any clients in the survey. The differences in contraceptive method uptake at New Karachi were found to be statistically significant (p = 0.000), indicating clear variation in client preferences or method availability.

Figure 4 illustrates the distribution of different contraceptive methods used by clients at the Gulshan clinic. The most used method is the Implants at 35.8%, followed by the Injectables (22.6%), the Intrauterine Device (IUD) (18.9%), and Male Condoms (17%). Less commonly used method is Oral Contraception (5.7%). The differences in contraceptive method uptake at Gulshan were found to be statistically significant (p = 0.000), indicating clear variation in client preferences or method availability.

Figure 5 illustrates the distribution of contraceptive methods used by clients at the Nazimabad clinic. The most commonly used method is the Intrauterine Device (IUD), which accounts for 61.6%, followed by Male Condoms at 26%. Less commonly used methods include Injectables at 12.3%, while Implants and Oral Contraception were not used (0.0%). The differences in contraceptive method uptake at Nazimabad were found to be statistically significant (p = 0.000), indicating clear variation in client preferences or method availability.

Figure 6 illustrates the distribution of contraceptive methods used by clients at the DHA clinic. The only method used at the DHA clinic is Implants, accounting for 100%. Other methods, including Injectables (IUDs), Male Condoms, and Oral contraceptives, were not used. The differences in contraceptive method uptake at DHA were found to be statistically significant (p = 0.000), indicating clear variation in client preferences or method availability.

Figure 7 illustrates the distribution of contraceptive methods used by clients at the Korangi clinic. The most used method is the Injectables which accounts for 48.5%, followed by Implants at 26%. Less commonly used methods include Intrauterine Device (IUD) at 15.2 and Oral Contraception at 12.1%, while Male condoms were not used (0.0%). The differences in contraceptive method uptake at Korangi were found to be statistically significant (p = 0.000), indicating clear variation in client preferences or method availability.

Figure 3: Family Planning Method Uptake (NEW KARACHI)

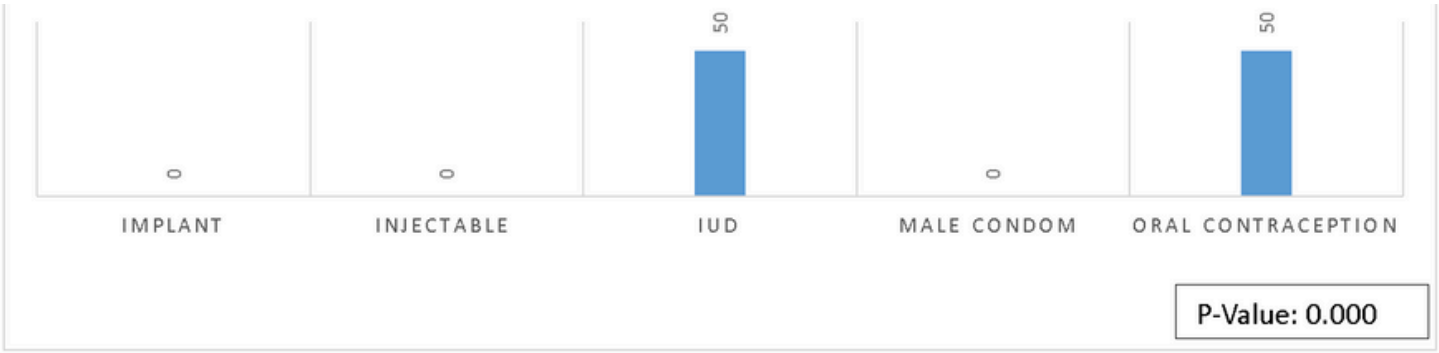


Figure 4: Family Planning Method Uptake (GULSHAN)

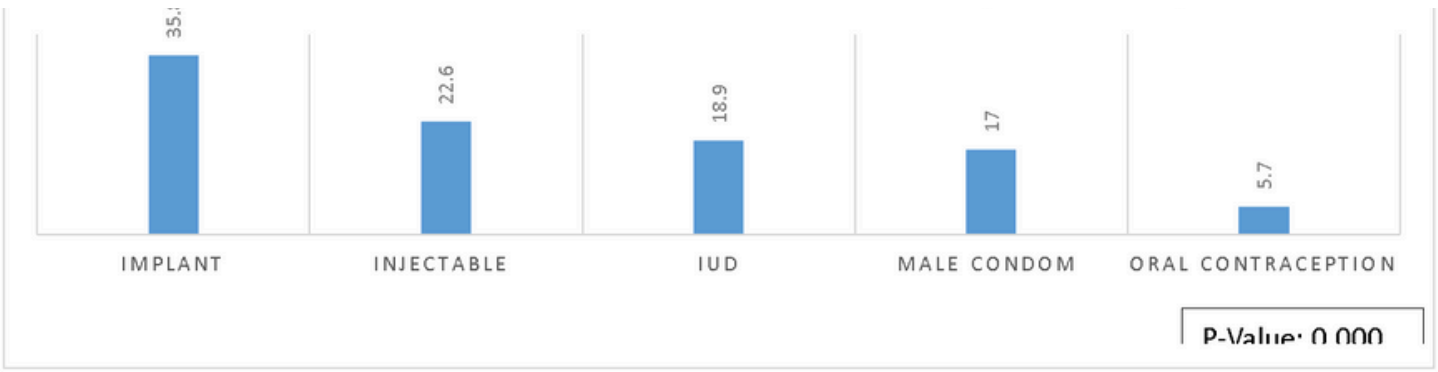


Figure 5: Family Planning Method Uptake (NAZIMABZD)

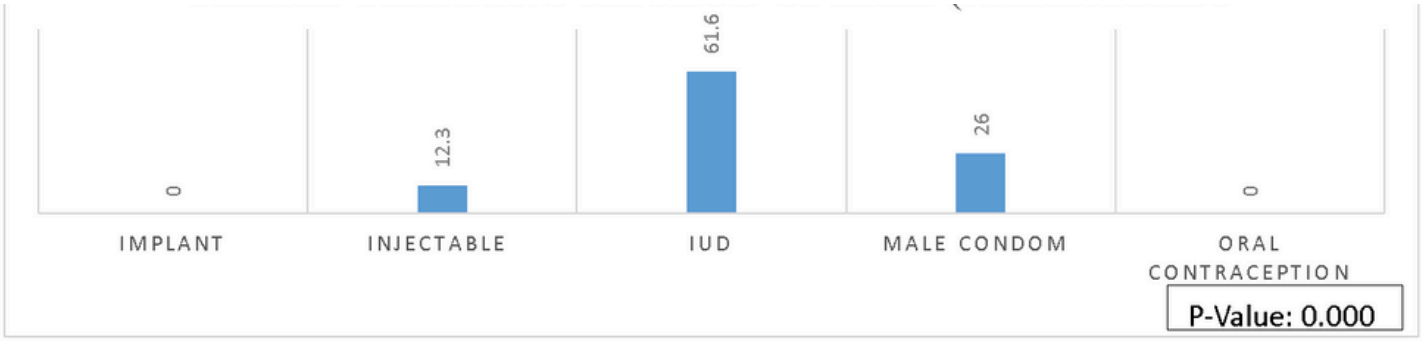


Figure 6: Family Planning Method Uptake (DHA)

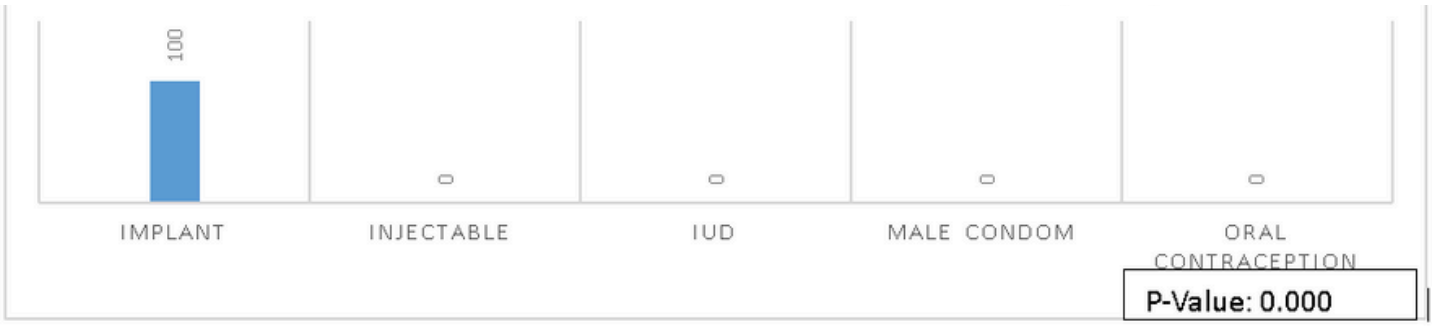
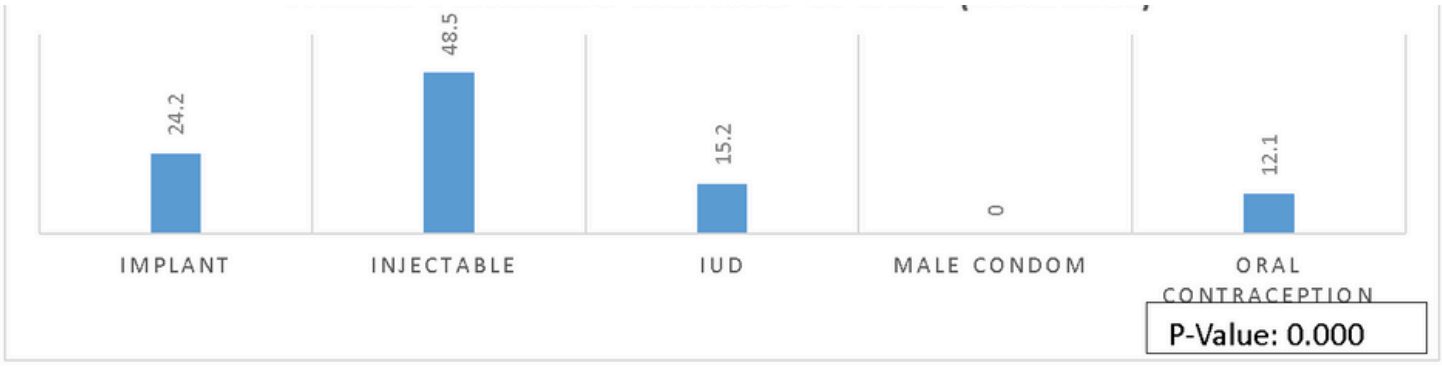


Figure 7: Family Planning Method Uptake (KORANGI)



Descriptive Analysis of Client Satisfaction Ratings Across Clinics

Table 2 summarizes the distribution of client satisfaction scores across six healthcare clinics using an 11-point Likert scale ranging from 0 ("Not at all likely to recommend") to 10 ("Extremely likely to recommend"). Each clinic was evaluated by 100 clients, totaling 600 respondents. The data reveals substantial variation in satisfaction levels among clinics, with higher scores generally indicating greater likelihood of recommending the service.

Overall Satisfaction Trends

The aggregate data across all clinics shows a marked skew towards high satisfaction. A total of 89.1% of clients rated their satisfaction between 8 and 10, with 36.4% giving a score of 9 and 28.1% assigning a perfect 10. Lower satisfaction levels were minimally represented: only 2.5% rated their experience as 4, and the mid-range scores (5–7) were selected by a combined 8.5% of clients. This trend reflects generally favorable experiences, though clinic-specific patterns reveal more nuanced differences.

Clinic-Wise Satisfaction Distributions

- PECHS Clinic exhibited a broadly positive satisfaction distribution. The majority of clients rated the clinic highly, with 31.4% assigning a score of 8, 27.5% a 9, and 23.5% a 10. Moderate satisfaction scores (4, 6, and 7) were present but minimal, indicating that while the experience was predominantly positive, a small proportion of clients rated it slightly lower.
- NEW KARACHI Clinic received the most concentrated high scores, with 80.4% of clients rating their experience as 9 and 19.6% as 8. Notably, no clients selected any score below 8, indicating uniform satisfaction and a highly favorable perception of care quality at this location.
- GULSHAN Clinic displayed a slightly more varied pattern. While high satisfaction remained dominant—with 36.6% scoring a 9 and 27.7% a 10—clients also selected scores across the mid-range (scores 4 through 7) in smaller proportions. This suggests a generally positive experience, though some variability in service delivery may exist.
- NAZIMABAD Clinic was also rated positively, with 64.0% of clients giving a score of 9 and 27.0% giving an 8. A small proportion (9.0%) rated the clinic at 7, and no scores below 7 were recorded, indicating a high but not unanimous level of satisfaction.
- DHA Clinic was distinguished by unanimous satisfaction: 100% of respondents rated their experience a perfect 10. This outcome signifies exceptional service quality and a complete absence of dissatisfaction among surveyed clients.
- KORANGI Clinic presented the most dispersed satisfaction profile. While 49.0% of clients rated the clinic at 8 and 18.0% at 10, a noticeable proportion of clients gave lower ratings: 8.0% scored it a 4, and 16.0% selected 7. This spread indicates a wider variability in client experiences and suggests areas for potential service enhancement.

Statistical Comparison of Client Satisfaction Across Clinics

Table 3 presents the evaluation of differences in client satisfaction levels across various clinics, conducted through a series of non-parametric statistical analyses. The Mann-Whitney U test was employed for pairwise comparisons between clinics, while the Kruskal-Wallis H test assessed overall differences across all six clinics. The Kruskal-Wallis test revealed a highly significant difference in client satisfaction distributions across clinics ($H = 223.91$, $p < 0.001$), indicating that at least one clinic had a statistically different satisfaction profile compared to the others.

Pairwise Mann-Whitney U tests further elaborated on these differences:

- DHA exhibited statistically significant differences in satisfaction scores when compared with all other clinics, including PECHS ($p < 0.001$), NEW KARACHI ($p < 0.001$), GULSHAN ($p < 0.001$), NAZIMABAD ($p < 0.001$), and KORANGI ($p < 0.001$). This outcome is consistent with DHA's exceptional satisfaction ratings, where 100% of clients rated their experience as "10" on the scale.
- KORANGI also showed significant differences from several clinics: PECHS ($p = 0.0056$), NEW KARACHI ($p < 0.001$), GULSHAN ($p < 0.001$), NAZIMABAD ($p < 0.001$), and DHA ($p < 0.001$). These results suggest considerable variation in satisfaction levels, likely attributed to KORANGI's broader spread of scores, including lower ratings.
- Additional statistically significant differences in client satisfaction were observed among specific clinic pairs. Notably, satisfaction ratings differed significantly between NEW KARACHI and NAZIMABAD ($p = 0.0038$), indicating divergent client experiences between these two sites. A significant contrast was also found between GULSHAN and NAZIMABAD ($p = 0.0394$), suggesting measurable differences in perceived service quality. Furthermore, the comparison between GULSHAN and KORANGI yielded a highly significant result ($p < 0.001$), underscoring a substantial disparity in client satisfaction between these facilities. These findings reinforce the heterogeneity of client perceptions across clinics and highlight specific locations where targeted quality improvement efforts may be warranted.

In contrast, several clinic pairs exhibited no statistically significant difference in client satisfaction scores, suggesting comparable levels of perceived service quality. Specifically, satisfaction ratings between PECHS and NEW KARACHI ($p = 0.0991$), PECHS and GULSHAN ($p = 0.2315$), and PECHS and NAZIMABAD ($p = 0.8619$) did not differ significantly. Likewise, the comparison between NEW KARACHI and GULSHAN ($p = 0.5983$) revealed no meaningful variation in satisfaction distributions. These non-significant results indicate a relative alignment in client experiences across these clinics, pointing to a consistent standard of care among this subset of facilities.

These non-significant results imply that the distributions of satisfaction scores in these clinic pairs were similar, suggesting comparable performance in client experience.

The statistical evidence supports the conclusion that client satisfaction varies significantly across clinics, with DHA standing out for its consistently high ratings. Clinics such as KORANGI and NAZIMABAD show greater variance and lower satisfaction in comparison, highlighting potential areas for quality improvement.

Table 2. Percentages and scale of client satisfaction by Clinics

Overall Average											
Percentage	-	-	-	-	2.5%	1.0%	1.5%	6.0%	24.6%	36.4	28.1%
Scale*	0	1	2	3	4	5	6	7	8	9	10
PECHS											
Percentage	-	-	-	-	3.9%	-	5.9%	7.8%	31.4%	27.5%	23.5%
Scale	0	1	2	3	4	5	6	7	8	9	10
NEW KARACHI											
Percentage	-	-	-	-	-	-	-	-	19.6%	80.4%	-
Scale	0	1	2	3	4	5	6	7	8	9	10
GULSHAN											
Percentage	-	-	-	-	3.0%	5.9%	3.0%	3.0%	20.8%	36.6%	27.7%
Scale	0	1	2	3	4	5	6	7	8	9	10
NAZIMABAD											
Percentage	-	-	-	-	-	-	-	9.0%	27.0%	64.0%	-
Scale	0	1	2	3	4	5	6	7	8	9	10
DHA											
Percentage	-	-	-	-	-	-	-	-	-	-	100%
Scale	0	1	2	3	4	5	6	7	8	9	10
KORANGI											
Percentage	-	-	-	-	8.0%	-	-	16.0%	49.0%	9.0%	18.0%
Scale	0	1	2	3	4	5	6	7	8	9	10
***0 = Not at all likely, 10= Extremely likely**											

Table: 3 Pairwise Clinic Comparisons of satisfaction scores

Clinic 1	Clinic 2	Mann-Whitney U Statistic	p-value
PECHS	NEW_KARACHI	4164.5	0.0991
PECHS	GULSHAN	4208.0	0.2315
PECHS	NAZIMABAD	4865.0	0.8619
PECHS	DHA	1150.0	0.0001
PECHS	KORANGI	5853.0	0.0056
NEW_KARACHI	GULSHAN	4616.0	0.5983
NEW_KARACHI	NAZIMABAD	5867.5	0.0001
NEW_KARACHI	DHA	0.0	0.0038
NEW_KARACHI	KORANGI	7121.5	0.0001
GULSHAN	NAZIMABAD	5611.5	0.0001
GULSHAN	DHA	1350.0	0.0001
GULSHAN	KORANGI	6341.0	0.0001
NAZIMABAD	DHA	0.0	0.0001
NAZIMABAD	KORANGI	6413.5	0.0001
DHA	KORANGI	9100.0	0.0001
Overall (Kruskal-Wallis)		223.91	0.0001

DISCUSSION

This study provides robust evidence that client satisfaction with family planning services in Karachi's private clinics is generally high, but not uniform. The overwhelming concentration of high scores (8–10) across the sample points to effective service delivery in most clinics. However, significant inter-clinic variability—especially between DHA and Korangi—reveals critical gaps in quality and consistency.

The results affirm the established literature, which links client satisfaction with quality of care and sustained contraceptive use [13,14]. DHA's exceptional satisfaction ratings align with the clinic's demographic profile, where clients were more educated and fell within a narrower age band (25–34). This suggests that both client expectations and service quality contribute to satisfaction scores. In contrast, Korangi's lower ratings and wider score distribution may reflect disparities in education, income, and possibly provider training or infrastructure limitations.

These differences have real-world implications. Clinics receiving lower satisfaction should be prioritized for quality improvement initiatives, including enhanced counseling, method availability, and client-provider communication. Additionally, the significant variations in contraceptive method uptake further suggest that accessibility, education, and cultural factors play a role in client preferences—highlighting the importance of tailoring services to meet diverse community needs.

The use of non-parametric statistical analysis strengthens the reliability of the findings, especially given the ordinal nature of satisfaction ratings. The Kruskal-Wallis test revealed statistically significant differences across clinics, while Mann-Whitney U tests identified specific clinic pairs with meaningful contrasts. These methods ensured that conclusions were drawn based on rigorous evidence rather than assumptions.

In summary, while the private sector is performing well overall, its heterogeneity cannot be ignored. The findings advocate for ongoing client feedback mechanisms, targeted training, and localized strategies to enhance service quality across all private family planning facilities.

Study Strengths:

This study offers one of the few clinic-level analyses of client satisfaction with family planning services in Pakistan's private sector, addressing a key gap in reproductive health research. The use of a large, geographically diverse sample (600 respondents across six clinics) enhances the generalizability of the findings within urban Karachi. Moreover, the application of non-parametric statistical tests provided robust insights into inter-clinic differences, supporting data-driven conclusions.

Limitations:

Despite its contributions, the study has several limitations. First, the cross-sectional design limits the ability to draw causal inferences between clinic characteristics and satisfaction outcomes. Second, there is potential for social desirability bias, as clients may have overstated satisfaction due to being interviewed immediately post-service. Third, the study did not assess provider characteristics or service delivery practices in detail, which may explain some variation in satisfaction. Lastly, results are specific to private sector clinics in Karachi and may not be generalizable to rural areas or public healthcare settings.

CONCLUSION

This study highlights both the strengths and weaknesses in the delivery of family planning services through Karachi's private health sector. The consistently high satisfaction scores underscore the effectiveness of private clinics in meeting reproductive health needs, especially when services are client-centered, accessible, and respectful.

However, the significant variation in satisfaction across clinics reveals that not all facilities operate at the same standard. Clinics such as DHA and New Karachi serve as models of excellence, offering lessons in best practices that could be replicated elsewhere. On the other hand, clinics like Korangi, with more dispersed and lower satisfaction scores, should be focal points for targeted improvements.

The evidence calls for a shift from simply expanding service coverage to enhancing the quality of care delivered. This includes strengthening provider training, improving client counseling, and ensuring the availability of a full range of contraceptive methods. Importantly, satisfaction should not be treated as a one-time metric but as a continuous indicator of performance, feeding into ongoing quality assurance and programmatic planning.

Future policies should institutionalize client satisfaction assessments as part of routine monitoring and evaluation frameworks. Such efforts will not only enhance service delivery but also foster sustained contraceptive use and greater trust in health systems—critical goals for achieving Pakistan's reproductive health and development targets.

Implications for Future Research

While this study offers valuable insights into client satisfaction with private family planning services, future research should explore long-term outcomes, such as method continuation or switching behavior. Qualitative studies are needed to understand dissatisfaction in underperforming clinics.

Investigating the role of provider behavior, client-provider interactions, and service quality could add depth to existing findings. Future studies should also consider including male partners, unmarried women, and clients from rural or low-income communities to address gaps in equity and access.

Comparative analyses between public and private sectors and the use of digital feedback tools may help identify scalable best practices. Such research would strengthen evidence-based strategies to improve reproductive health services across diverse settings in Pakistan.

Author Contributions

Conceptualization: WHS
Methodology: WHS
Data Management: WHS
Analysis: WHS
Investigation: WHS
Writing: WHS
Visualization: WHS
Supervision: RSS
Validation: RSS
Methodological Review: RSS
Review & Editing: AF

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Supporting Information:
The structured questionnaire used for data collection (File attached).

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Already Known on This Topic
- Client satisfaction is a critical determinant of continued contraceptive use and service utilization.
- Quality of care in family planning services varies significantly across health facilities.
- In Pakistan, most studies have focused on public sector family planning services.
- Private clinics play a growing role in reproductive health service delivery in urban areas.

This Study Adds to the Literature
- Provides the first clinic-level comparison of client satisfaction across six private family planning clinics in Karachi.
- Highlights significant disparities in satisfaction scores and method uptake between clinics.
- Demonstrates the effectiveness of using non-parametric statistical tests to assess satisfaction differences.
- Offers practical insights for targeted quality improvements in underperforming clinics like Korangi.

Research adds to the currently available literature:
Client Satisfaction in Private Clinics: While most studies in Pakistan focus on public sector family planning services, this study uniquely evaluates client satisfaction in private urban clinics, addressing a critical gap in the literature.
Clinic-Level Comparison: The research offers a clinic-wise comparative analysis, highlighting inter-clinic differences in satisfaction, service quality, and contraceptive method uptake—rarely explored in prior studies.
Statistical Evidence of Service Disparities: Using robust non-parametric statistical methods (Kruskal-Wallis and Mann-Whitney U tests), the study provides quantitative evidence of satisfaction variability across socioeconomic and geographic lines.

Policy-Relevant Insights: The study identifies high-performing (e.g., DHA) and underperforming clinics (e.g., Korangi), offering actionable data for targeted quality improvement and resource allocation in Pakistan's growing private healthcare sector.

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