

Unveiling Gender Disparities: A Cross-Sectional Assessment of Patient's Perception in Dental Care

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Abstract

Background: Gender preferences are observed when it comes to strong religious, ethnic, and communal issues. Our community is dominated by men, and gender stereotype has influenced every field, including the medicine and dentistry as well when it comes to choose the health professionals. So, this study was conducted to determine patients' perceptions and preferences for gender stereotypes in local dental services.

Methodology: A descriptive cross-sectional study was conducted at Altamash Institute of Dental Medicine, Karachi, with ERB approval from 1st February to 31st March 2022. After informed verbal consent, they were provided with a self-administered, structured, closed-ended questionnaire (Cronbach's $\alpha=0.897$) containing 21 questions. With Open Epi calculated sample size was 249, a total of 252 completed questionnaires were considered in the study based on the eligibility criteria. The data was tabulated with required descriptive and inferential analysis using SPSS 26, considering 0.05 p-value statistically significant.

Results: The findings revealed that most of the dental practice characteristics are connected with gender, specifically when it comes to the males who still preferred males for dental services with statistically significant differences in most of the attributes ($p > 0.05$).

Conclusion: Concerning the patient's gender, the male patients preferred male dentists, whereas female patients had no gender preferences for the dentist.

Keywords: Dental services; discrimination; gender; patient preference; stereotyping

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Introduction

In this fast-paced period of advancement, women are opting to pursue careers in all difficult fields. Among all age groups, the most popular careers for women are still in medicine and dentistry, where the proportion of female employees is rising annually. Patients' preferences for certain jobs are influenced by gender stereotypes (1-2)

According to some studies and surveys, females are submissive and skillfully express emotions and are also perceived as being more sensitive and empathic than men (3,4,5). However, other studies think that stereotypes and gender norms can systematically prejudice empathy and that empathy is influenced by environmental circumstances. It is believed that men are more optimistic, strong, focused, methodical, insensitive to the emotions of others, and also far more competent (5). When working with patients, both genders differ greatly in terms of mood, behaviour, expertise, and attitude. This has a considerable impact on the interactions between the dentist and the patient (6).

Patients with a gender preference used to support clinicians of their gender in general, especially when the visits involved personal issues or gender-related examinations (7). In the discipline of dentistry, however, a restrictive pattern has emerged, in which patients have indicated a preference for male dental specialists, regardless of their gender (8). Clinical care, physicians' attitudes, communication skills, past experiences, doctors' reputations, and, in our area of the world, religious and culture-specific beliefs and conventions are the most prominent causes of gender-related preferences (9). A few research studies have recently looked into a patient's preference for a dental specialist based on their gender (10,11). The Pakistani community is dominated by men, and this



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gender stereotype has influenced the area of dentistry as well. This not only reduces female zeal and morale, but it has a significant negative influence on prospects for female dentists to thrive in their area, disproven though are competent in the vast majority of cases. As a result, many female dental professionals choose to pursue a career in academia rather than in clinical dentistry (12). According to a thorough web search, only few researches have been carried out in our country. This necessitates further exploration to determine the reasons for a patient's choice of a male or female dental specialist. Understanding how their disposition can either gratify or oppose inclinations that can further affect and fulfil patients' requirements. Further it can also assist dental specialists in gaining a better understanding of their patient's sexual orientation predispositions. Therefore, the purpose of this study is to assess patients' perceptions of dental care in rebounder stereotypes. It will also look into patients' opinions of female dentists' level of knowledge and confidence, as well as if religious and cultural values play a role in dental care gender selection. On the psychological level, to assess certain traits that lead to the specific gender inclination in the minds of the people, this study was conducted with the objectives, of determining patient's perception and preference for gender stereotypes in dental care facilities about their gender.

Methodology

A cross-sectional hospital-based questionnaire study was conducted on patients visiting Altamash Institute Dental Medicine (AIDM), Karachi, for two months (February –March 2022 during working hours and gave verbal consent to be a part of the study. Ethical clearance was taken by the Institutional Ethical Committee, Altamash Institute Dental Medicine (ERB/AIDM_1, Dated: 12-01-2022). All those dental patients were included, who visited the dental clinic and provided informed verbal consent. Based on a literature search, a self-administered, structured, closed-ended questionnaire (Cronbach's $\alpha=0.897$) was distributed to the patients coming into the hospital for any dental procedure or dental checkup during working hours. All questions had 3 options ('Male', 'Female', and 'No gender preference') (10,11).

Sample size and selection criteria:

Sample size was calculated using the prevalence of patient preferences for female prosthodontists in a study done by Huraib et al. in the Saudi population (27). The appropriate sample size was calculated with a confidence level of 90% using the Open Epi, version 3 keeping the % frequency of the prevalence of no preference for the gender of the dentist as 35.8% (± 5), and the sample size was found to be 249. A total of 260 patients who attended the dental clinic from 1st February-31st March 2022 were considered in the study with non-probability purposive sampling. Patients who were aged 18 years or above were able to read and understand the questionnaire and provided verbal consent were included in the study. The results were tabulated for 252 completed questionnaires.

Data collection:

The data included the respondent's general information regarding gender, education level, monthly income, age, and marital status, further patients' perception of dental care, their views and preferences in selecting a dentist for their treatment were asked. The detailed questionnaires were given to the patients and, were completed and collected after 10-15 min.

Statistical analysis:

The data was analyzed using SPSS version 26 (IBM Corporation, SPSS Inc., Chicago, IL, USA), and percentages were calculated for general patients' preferences for the choice of dentists and then further discrimination for the preference of dental specialist in response to the gender of the patient. Data was further tabulated with required inferential analysis (chi-square test) using SPSS 26, considering 0.05 or less p-value as statistically significant. All the data as a SPSS file is stored and saved at Zenodo (DOI: 10.5281/zenodo.10069927, dated 03-11-2023) under the Data license of Creative Commons Attribution 4.0 International and will be available after manuscript publication.

Results

A total of 252 participants' data was included in this study. In descriptive statistics, we have calculated frequencies of different groups that are of gender, age, marital status, and educational level. Of the 252 participants, 62 % were females and 38% were males. 60.7 % of the sample's mean age was less than 24 years. Of the data collected 83 (32.9 %) were married while 169 (67.1 %) were unmarried with most participants 157 (62.3%) possessing undergraduate degrees while 51 (20.2%) were postgraduates and 44 (17.5%) were matriculated. (Table 01) Regarding the overall dentist gender preference of the patients, a statistically significant difference was observed for the acceptance of patients' discomfort without complaint, rushed judgement regarding diagnosis by the dentist, the comfortability of answering and discussing general health issues, discussion about financial limits, empathic attitudes, authoritative attitude, decisive and confident, focused more on preventive measures, aesthetic concern, cleanliness and hygienic, organized, multiple visits, time management, technically skilled, and more experienced, and choose dentist in future ($p \leq 0.05$). Non-significant results were observed for solving ailments of the patients, family devotion and charging more. (Table 02) On reliability statistics with SPSS 26 for the validity of the questionnaire, Cronbach's alpha value was 0.897.

Table 1: Sociodemographic characteristics of the participants

	Variable	N = 252	%
Gender	Male	95	37.7
	Female	157	62.3
Age	24 or less	153	60.7
	25 - 34	38	15.1
	35 -44	30	11.9
	45 -54	18	7.1
	55-64	11	4.4
	More than 65	2	0.8
Marital status	Married	83	32.9
	Unmarried	169	67.1
Educational status	Matric	44	17.5
	Undergraduate	157	62.3
	Postgraduate	51	20.2

Table 2: Comparative analysis of male, female or no preference of dentist by the patients about their gender

Parameters	Dentists gender	gender Preference (n=252)	Male Patient (n=95)	Female Patient (n=157)	p-value (M vs F/M) ≤ 0.05sig
Accept patient's discomfort without complaints	Male	98 (38.8%)	44 (44.8%)	54 (55.1%)	0.001*
	Female	58 (23%)	10 (17.2%)	48 (82%)	
	No Preference	96 (38%)	41 (42.7%)	55 (57.2%)	
Rushed Judgement regarding diagnosis by the dentist	Male	59 (23.4%)	26 (44.8%)	33(55.9)	0.043*
	female	110(43.7%)	39(35%)	71(68.4%)	
	No preference	83(32.6%)	30(36.1%)	53(63.5%)	
Comfortable with discussing dental fears with the dentist	Male	68(26.9%)	49(72%)	19(27.5%)	0.00*
	Female	105(41.7%)	22(20.7%)	83(79.24%)	
	No preference	79(31.3%)	24(30.7%)	55(69.2%)	
Comfortable with discussing general health issues with dentists	Male	55(21.8%)	48(87.2%)	07(12.7%)	0.00*
	Female	104(41.3%)	18(16.9%)	86(83.0%)	
	No preference	93(36.9%)	29(31%)	64(68.1%)	
Comfortable with discussing financial limits with a dentist	Male	75(29.7%)	45(61.3%)	29(38.6%)	0.00*
	Female	61(24.2%)	11(16.6%)	50(83%)	
	No preference	117(46.4%)	39(33.33%)	78(66.6%)	
More empathic attitude towards patients	Male	49(19.4%)	29(59.1%)	20(40.8%)	0.00*
	Female	97(38.5%)	40(41.3%)	57(58.7%)	
	No preference	106(42.1%)	26(24.5%)	80(75.47%)	
Solves ailments of the patients by the dentist	Male	69(27.3%)	32(46.3%)	38(14.6%)	0.94
	Female	50(19.8%)	21(42%)	30(58%)	
	No preference	133(52.7%)	42(31.5%)	89(68.4%)	
More family devoted	Male	96(38.1%)	44(45.8%)	52(54.1%)	0.054
	Female	42(16.7%)	17(40.4%)	25(59.5%)	
	No preference	114(45.2%)	34(29.8%)	80(70.17%)	
Less emotional	Male	134(53.2%)	65(48.5%)	69(51.4%)	0.00*
	Female	29(11.5%)	12(41.3%)	17(58.6%)	
	No Preference	89(35.3%)	18(20.2%)	71(79.77%)	
An authoritative attitude of the dentist toward the diagnosis and management	Male	102(40.5%)	48(47.0)	54(52.9%)	0.00*
	Female	54(21.4%)	25(46.2%)	29(53.7%)	
	No preference	96(38.1%)	22(22.9%)	74(77%)	
Decisive and confident	Male	81(32.1%)	41(51.2%)	40(48.7%)	0.001*
	Female	48(19.0%)	21(43.5%)	27(56.2%)	
	No preference	123(48.8%)	33(26.6%)	90(73.3%)	
Focused more on Preventive measures rather than aggressive treatment	Male	39(15.5%)	27(69.2%)	12(30.7%)	0.00*
	Female	107(42.5%)	37(34.5%)	70(56.4%)	
	No preference	106(42.1%)	31(29.2%)	75(70.7%)	
More concern with the Aesthetics of the patients	Male	39(15.5%)	26(66.6%)	13(33.33%)	0.00*
	Female	116(46%)	40(34.7%)	76(65.2%)	
	No preference	97(38.5%)	29(29.55%)	68(70.4%)	
Charges More	Male	73(29%)	30(41%)	43(58.9%)	0.77
	Female	45(17.9%)	17(36.3%)	28(63.6%)	
	No preference	135(53.2%)	48(36.2%)	86(63.7%)	
Cleanliness and Hygienic	Male	31(12.3%)	24(77.4%)	07(22.5%)	0.00*
	Female	109(43.3%)	36(33%)	73(66.9%)	
	No preference	112(44.4%)	35(31.2)	77(68.75%)	
More organized	Male	36(14.3%)	28(77.77%)	08(22.2%)	0.00*
	Female	83(32.9%)	27(32.5%)	56(67.46%)	
	No preference	133(52.8%)	40(30.3%)	93(69.9%)	
Multiple Visit	Male	50(19.84%)	34(68%)	16(32%)	0.00*
	Female	73(29%)	19(26%)	54(73.9%)	
	No preference	129(51.2%)	42(32.55%)	87(67.44%)	
Time management	Male	71(28.2%)	49(69%)	22(30.9%)	0.00*
	Female	62(24.6%)	22(35.4%)	40(64.5%)	
	No preference	119(47.2%)	24(20.1%)	95(79.8%)	
Technically skilled	Male	99(39.2%)	52(52.5%)	47(47.47%)	0.00*
	Female	29(11.5%)	11(37.93%)	18(62.0%)	
	No preference	124(49.2%)	32(25.8%)	92(74.1%)	
More experienced	Male	78(31%)	41(53.08%)	37(46.9%)	0.002*
	Female	37(14.7%)	15(43.75%)	22(56.25%)	
	No preference	137(55.4%)	39(27.3%)	98(72.66%)	
Choose a dentist in future	Male	62(24.7%)	43(69.3%)	19(30.6%)	0.00*
	Female	63(25%)	19(30.1%)	44(69.8%)	
	No preference	127(50.4%)	33(25.9%)	94(74%)	

Discussion

It is vital in the fields of medicine and dentistry to show a kind and positive attitude while interacting with patients. A good interpersonal connection between a patient and a provider is defined by understanding, respect, and easy communication, with equilibrium in their different decision-making roles. A healthy relationship is an essential indicator of quality treatment (13). The existence and the consequences of gender stereotypes have been studied in many researches by social scientists and generalized to clinical settings about doctors and dentists (14,15).

Several demographic and social issues and practice patterns discriminate between male and female dentists. The structure of the dental profession provides unique opportunities for both to exercise a high degree of authority and flexibility and at the same time to serve the community as a healthcare provider (16). Patients' deviation and preference for dentists of a certain gender suggested that further research can be carried out into the scope of patients' gender stereotypes, what characteristics they include, and reasons that are related to patients choosing either of the genders specifically.

The findings of this cross-sectional investigation revealed that several attributes were evenly distributed across all the three alternatives. However, there is some indication that certain characteristics were still connected with gender especially regarding males. Patients had no preference overall with gender discrimination for dentists for multiple characteristics such as being comfortable, discussing financial limits, being sensitive, caring, decisive, and confident according to the findings of this study. However, few previous reports suggested certain characteristics were still related to gender discrimination. Further according to our results, for details regarding the preference of patients based on their gender, to the gender of the dentist, it was observed that many factors, similar genders were considered in more percentages by the patients. Male patients stated that male dentists have a more empathic attitude toward patients and can solve ailments of the patients. Robinson revealed that patients think that male dentists are more likely to demand to tolerate the discomfort of the patient; perhaps this could be because female dentists are considered to communicate with more empathic and humane behaviour (17). Similarly, patients find it comfortable to discuss their dental fears and health issues and financial limits with the same gender. Male patients acknowledged that male dentists are more devoted to the family, less emotional, and have an authoritative nature as compared to female dentists. In contrast, female patients stated no dentist gender preferences for all the parameters. Again, male patients believed that male dentists are more decisive and confident, focused more on preventive measures rather than aggressive treatment, are more concerned with the aesthetics of the patients, more engaged in cleanliness and hygiene, are more organized with better time management quality, and technically more skilled and experienced as

compared to females. Whereas female patients stating no gender preferences for the dentist in above stated conditions. Regarding which dentist to choose for multiple visits, male patients preferred male dentists, whereas female patients preferred female dentists.

Possible explanations for the patient's preference for clinicians include religious believes, cultural impacts, the nature of the required critical clinical care, physician attitude, and communication style, patient stereotyping of physicians, patient's prior contact with same-gender physicians, the quality of patients' experience with male and female physicians, and age of patients (18).

The literature also supports that males are perceived as being more authoritative than females, therefore, they may appear to be more capable of combining job and family. This authority influence impression may reflect dentistry's past when women were generally assigned to support jobs such as dental hygienists and assistants (19). It was also found that female dentists paid more attention to esthetics, as evident from prior literature (11). The reason could be that females are more conscious and concerned regarding their smiles and facial aesthetics (20). Another study found out that female dentists are better as patients feel more at ease discussing dental anxieties and uncertainties, as well as general health and overall well-being. They also pay attention, comprehend difficulties, and have a sensitive demeanour (21). Whereas, Mehmood declared the fact through his study that both dental patients and dentists, had no specific gender preference to perform dental treatments.²² In a recent study by Alzahrani documented that half of the patients had no gender preferences but the rest of them liked to visit similar gender dentists as their own (23).

Our findings were not compatible to prior studies such as spending significant time proposing preventive measures,¹³ where neither gender was favored, however, our study revealed a preference for female dentists. Yet there was some evidence that certain qualities were still associated with being a male or a female dentist (24). Female dentists are more likely to be seen as possessing empathy-related traits that correlate with patient satisfaction and compliance (21, 25).

In a perfect situation, healthcare providers should treat male and female patients equally, regardless of their gender. On the other hand, patients should also have an equal preference for a skilled and qualified dentist and gender in terms of the health provider-patient relationship should not be an issue (26).

Limitations:

This study had a few limitations; such as many dental patients have a particular attitude toward dental management, style, and the nature of the dentist before entering the dental office. His or her sentiments and need for the treatment are also influenced by previous dental experiences. Many of such factors may affect the dentist's gender preference. It is a small sample sized single centered study.

Conclusion

Regarding the patient's gender, the male patients preferred male dentists, whereas most of female patients had no gender preferences for the dental treatments.

Recommendations:

Detailed research on other variables with detailed qualitative study is required for a better knowledge of patient preferences, as they play an important role in the interaction between a dentist and his patient. More studies with large sample sizes are required to establish the validity of our findings and decrease gender-driven mindsets, gender preconceptions, and gender preferences in dental practices.

Ethical Approval:

This study was approved by the Ethics Committee of Altamash Institute of Dental Medicine.

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Data Availability: Data supporting the findings are available upon reasonable request.

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Conflict of interest: None declared.

Authors' Contribution:

RA: Conceptualization & critical Review

TFB: Study design, literature review & drafted the article

SJ: Write-up and data sampling

RA: Approved the final version & Correspondence

ZK: Data analysis & interpretation

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