

A QUESTIONNAIRE BASED SURVEY ON THE GENDER PREFERENCES BY PATIENTS SEEKING DENTAL TREATMENT

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ABSTRACT

Gender discrimination was a problem and it continues to be a problem today.

Gender bias is as prevalent in dentistry as it is in other workplaces.

This study is being conducted to determine the Gender preferences by the patients seeking Dental Treatment in a tertiary teaching-based hospital located in Sodepur, Kolkata.

This cross-sectional questionnaire study was conducted over a period of 2 months (June - July 2023) on patients visiting to the hospital were approached who were aged 18 years & above and able to read Bengali/Hindi/English.

The results shows that there was no such significant gender preference in patient. Majority 80.34% give more priority to the skill of the operator 9.93% have chosen male operator and 9.73% have chosen female operator. But in some aspects like treatment of their own offspring or sharing medical history, some chosen female over male.

KEY WORDS

Gender bias, Dentistry, Patient-Dentist relationship

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INTRODUCTION

Gender is not inherently tied to the sex that one is assigned at birth (sex is comprised of a spectrum as well), and genders apart from man and woman exist. People can identify as man or woman, a combination of both, or neither¹.

Wayne (1995) says that no law has ever attempted to define precisely the term 'discrimination', in the context of workforce, it can be defined as the giving of an unfair advantage (or disadvantage) to the members of the particular group in comparison to the members of other group.

Gender bias refers to any practice or set of beliefs that favours people of one gender over those of other genders².

At every stage we observe enforced, socially constructed gender divisions. These divisions have assigned power and dominance to men and marginalised the women and perceived them as potential subservient. Societal views that duty of the household is an unsaid responsibility of women, economic inequality, workplace harassment, and even gender bias is ineradicable³.

Owing to the existence of stereotype-fuelled gender disparities, women remain under represented in the health care sector too, and this gap has only widened with every ascent of learning and skill enhancement⁴.

Sexism on a regular basis has been so prevalent that it is taken as the norm.

The steps toward gender equilibrium aren't easy. The innate bias is so profound in Dentistry that female dentists are being victimised by the vicious trap of gender prejudice⁵.

Since gender bias is an unintentional process, it is reasonable to believe that critical reasoning and reflection are important for identifying and learning about it. Sexism is deeply rooted in society, and thus we have a lot of work to do in order to unpack and uproot stereotypes both professionally and personally⁶.

In the U.S., 60 percent of all practicing dentists under the age of 44 are women, making it easy to see the opportunity for women to grow in the profession⁷. The industry of dentistry is changing as

women tend to interact a little differently with a touch of compassion and focus on nurturing than some of their male peers, which is a real plus point in the dental field. This female touch stretches beyond developing supportive and patient-sensitive relationships⁸.

According to THE TIMES OF INDIA article published on May 11, 2023, in Army dental profession, 90% of the seats are reserved for men. Responding to the plea alleging gender discrimination in the recruitment of Army Dental Corps (ADC) by way of reservation of 90% vacancies for males, the central government has submitted before the Supreme Court (SC) that all such recruitment would be gender neutral.

As women are more likely to be juggling home and family responsibilities along with their professional practice, they are often more organized and know how to manage their time more effectively. They tend to be more focused and driven when it comes to perfecting their craft⁹.

Challenges still exist for women in dentistry, but more and better opportunities are opening with time. As more and more women choose to become dentists, the challenges women face in the dental field will continue to diminish.

Results provide evidence of gender inequalities that currently persist in dental academics and research. Although the gender gap among graduating dental students in North America and the two most populous countries in Europe (the United Kingdom and France) has been narrowed, women make up 30% to 40% of registered dentists in countries throughout Europe, Oceania, Asia, and Africa. In academic dentistry around the globe, greater gender inequality was found to correlate with higher ranking academic and leadership positions in the United States, United Kingdom, several countries in European Union, Japan, and Saudi Arabia. Further disparities are noted in the dental research sector, where women make up 33% of dental researchers in the European Union, 35% in North America, 55% in Brazil, and 25% in Japan¹⁰.

MATERIALS AND METHODS

Ethical approval

The study protocol was approved by Institutional Ethics Committee (GNIDSR/IEC/23-24/08) at Guru Nanak Institute of Dental Sciences and Research, Panihati, Kolkata- 700114

Questionnaire development

A self-administered questionnaire was developed in English, Hindi and Bengali to determine the gender preferences by patients seeking dental treatment. The questionnaire was developed using previous surveys conducted in other parts of the world.

The developed questionnaire consisted of two sections: the first section collected demographic information and the second section concerned about the gender preferences by the patients. One of the questions was conceptual and focused on the various factors that affect their choice of operator. The rest of the questions asked about the preferred gender option for different types of dental treatment (aesthetic, restorative, prosthesis replacement, surgical or non-surgical) and the general aspects of treatment (organised, hygienic, paying attention to dental or medical history, fairness in determining fees). Most of the questions had 3 options ('Male', 'Female', and 'Doesn't matter'). Majority of the responses were collected considering the patient is literate (read and understand on their own). All questions were presented in the result section to avoid repetition. The face validity of the questionnaire was established by three experts in the fields of Prosthodontic, Restorative Dentistry, and Endodontics

Study population

The sample size was calculated using this following method:

n (sample size) = $z\alpha^2 p(1-p)/e^2$ where p is proportion, e is precision

here $\alpha = 5\%$ hence $z\alpha$ (the Value of the standard normal variate at 5% error) = 1.96

p (Proportion) = 54%. $(1-p) = 46\%$ $e = 10\%$.

So, $n = (1.96)^2 \times (54\%) \times (46\%) / (10\%)^2 = 95.43 \approx 96$.

Using these values in the above formula, n is obtained was 96. Hence minimum 96 patients were included in the study.

A total of 100 patients were approached, calculated by statistical software SPSS version 22. Patients who were aged 18 years or above and able to read and understand Bengali/Hindi/English were included in this study. Those who were not willing to participate were excluded.

Data collection

This cross-sectional hospital-based questionnaire study was conducted over a period of 2 months (June - July 2023) during the working hours, on patients visiting tertiary teaching based dental hospital, Guru Nanak Institute of Dental Sciences and Research.

The data was collected on a structured proforma consisting of three parts:

- Informed consent (after explaining the purpose of the survey)
- General information regarding demographic
- Questionnaire

The proforma was handed over to the patients requesting them to fill the same. It was collected after 10 min and checked for its completeness.

STATISTICAL ANALYSIS

Statistical testing is conducted with the statistical package for the social science system version IBMSPSS@20. Categorical variables are expressed in frequencies and percentages. Chi square test is used in categorical data. For all statistical tests 'P' value less than 0.05 has been taken to indicate a significant difference.

Section 1

Patient demographic data:

NAME	AGE	GENDER	EDUCATIONAL QUALIFICATION	EMPLOYMENT STATUS	MARITAL STATUS	LANGUAGE SPOKEN
		<ul style="list-style-type: none"> • Male • Female • Any others 	<ul style="list-style-type: none"> • Below 10th Standard • Secondary (10th Standard) • Higher Secondary (12th Standard) • Graduated 	<ul style="list-style-type: none"> • Student • Employed • Non-employed • Part-time employed • Housewife 	<ul style="list-style-type: none"> • Bachelor Married • Widower • Divorced 	<ul style="list-style-type: none"> • Bengali • Hindi • English • Others

Section 2

Questions regarding Gender of the Operator-

Please choose the appropriate answer from the following questions:

1. When you go to the dentist to seek dental treatment, would you prefer the operator's gender to be?

- Male operator
- Female operator
- Doesn't matter

2. What is your gender preference in sharing your dental and medical health history?

- Male operator
- Female operator
- No Such Preference

3. According to you which gender will pay attention to your health problems more carefully?

- Male operator
- Female operator
- No Such Preference

4. According to you, which gender seems to be more technically skilled and experienced?

- Male operator
- Female operator
- No Such Preference

5. In your opinion, who is more organized and hygienic in treatment approach?

- Male operator
- Female operator
- No Such Preference

6. Which gender would you prefer to get your child (or your future child) treated?

- Male operator

- Female operator
- Doesn't matter

7. According to you, which gender is better in patient management?

- Male operator
- Female operator
- No Such Preference

8. Which gender would you consult in case of critical dental health problems?

- Male operator
- Female operator
- No Such Preference

9. In case you need an aesthetic dental treatment (whitening / veneers), whom would you prefer to receive the treatment from?

- Male operator
- Female operator
- Doesn't matter

10. In case you need a dental treatment related to cavity preparation and filling, whom would you prefer to receive treatment from?

- Male operator
- Female operator
- Doesn't matter

11. In case you need a dental treatment for missing teeth (complete denture, partial denture, crown preparation fixed prosthesis), whom do you prefer to receive the treatment from?

- Male operator
- Female operator
- Doesn't matter

12. In case you need a non-surgical endodontic treatment (root canal treatment), whom would you

prefer to receive the treatment from

- Male operator
- Female operator
- Doesn't matter

13. If your condition requires surgical dental treatment (Extraction/implant surgery / maxillofacial surgery), whom would you prefer to receive the treatment from?

- Male operator
- Female operator
- Doesn't matter

14. According to you, which gender is fair in determining dental treatment fees?

- Male operator
- Female operator

- No Such Preference

15. What is your gender preference for taking advices from and complying with the procedure?

- Male operator
- Female operator
- No Such Preference

16. In your opinion, what are the factors that affect your choice of the operator?

(You can choose more than one answer)

- Community
- Religious beliefs
- Age
- Opinion of known people
- Influence of the spouse or the guardian
- Previous experiences

RESULT

Distribution of Patients with overall comparison and Male with Female comparison.

QUESTION NO .1

Choice	Frequency	Percent	χ^2	P-value
No Specific choice	81	81	51.99	<.001**
Male	12	12	0.67	0.413
Female	07	07		
Total	100	100.0		

** Highly Significant (P<.0.01)

QUESTION NO .2

Choice	Frequency	Percent	χ^2	P-value
No Specific choice	78	78	40.41	<.001**
Male	10	10	0.09	0.760
Female	12	12		
Total	100	100.0		

** Highly Significant (P<.0.01)

QUESTION NO .3

Choice	Frequency	Percent	χ^2	P-value
No Specific choice	82	82	48.39	<.001**
Male	9	9	0.00	1.00
Female	9	9		
Total	100	100.0		

** Highly Significant (P<.0.01)

QUESTION NO .4

Choice	Frequency	Percent	χ^2	P-value
No Specific choice	83	83	50.84	<.001**
Male	10	10	0.27	0.606
Female	7	7		
Total	100	100.0		

** Highly Significant (P<.0.01)

QUESTION NO .5

Choice	Frequency	Percent	χ^2	P-value
No Specific choice	80	80	44.33	<.001**
Male	9	9	0.10	0.752
Female	11	11		
Total	100	100.0		

** Highly Significant (P<.0.01)

QUESTION NO .6

Choice	Frequency	Percent	χ^2	P-value
No Specific choice	81	81	46.53	<.001**
Male	8	8	0.24	0.625
Female	11	11		
Total	100	100.0		

** Highly Significant (P<.0.01)

QUESTION NO .7

Choice	Frequency	Percent	χ^2	P-value
No Specific choice	81	81	46.53	<.001**
Male	11	11	0.24	0.625
Female	8	8		
Total	100	100.0		

** Highly Significant (P<.0.01)

QUESTION NO .8

Choice	Frequency	Percent	χ^2	P-value
No Specific choice	80	80	44.33	<.001**
Male	11	11	0.10	0.752
Female	9	9		
Total	100	100.0		

** Highly Significant (P<.0.01)

QUESTION NO .9

Choice	Frequency	Percent	χ^2	P-value
No Specific choice	76	76	37.00	<.001**
Male	10	10	0.34	0.562
Female	14	14		
Total	100	100.0		

** Highly Significant (P<.0.01)

QUESTION NO .10

Choice	Frequency	Percent	χ^2	P-value
No Specific choice	80	80	44.33	<.001**
Male	11	11	0.10	0.752
Female	09	09		
Total	100	100.0		

** Highly Significant (P<.0.01)

QUESTION NO .11

Choice	Frequency	Percent	χ^2	P-value
No Specific choice	81	81	46.53	<.001**
Male	11	11	0.24	0.625
Female	08	08		
Total	100	100.0		

** Highly Significant (P<.0.01)

QUESTION NO .12

Choice	Frequency	Percent	χ^2	P-value
No Specific choice	77	77	38.46	<.001**
Male	12	12	0.02	0.883
Female	11	11		
Total	100	100.0		

** Highly Significant (P<.0.01)

QUESTION NO .13

Choice	Frequency	Percent	χ^2	P-value
No Specific choice	79	79	42.26	<.001**
Male	10	10	0.02	0.877
Female	11	11		
Total	100	100.0		

** Highly Significant (P<.0.01)

QUESTION NO .14

Choice	Frequency	Percent	χ^2	P-value
No Specific choice	82	82	48.86	<.001**
Male	7	7	0.45	0.502
Female	11	11		
Total	100	100.0		

** Highly Significant (P<.0.01)

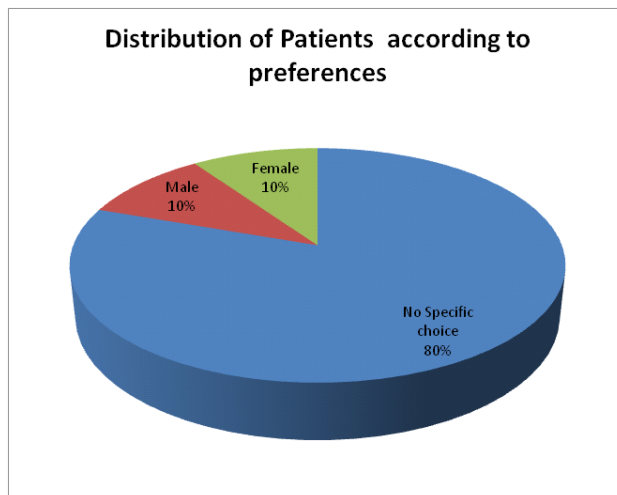
QUESTION NO .15

Choice	Frequency	Percent	χ^2	P-value
No Specific choice	84	84	52.81	<.001**
Male	8	8	0.00	1.00
Female	8	8		
Total	100	100.0		

** Highly Significant (P<.0.01)

OVERALL RESPONSE OF PATIENTS

Choice	Frequency	Percentage
No Specific choice	1205	80.34
Male	149	9.93
Female	146	9.73
Total	1500	100



- Experiences of relatives and friends
- The type of gender I prefer can handle difficult cases more steadily and effectively
- Shyness
- None of these factors affect my decision.

DISCUSSION

A key indicator of the quality of treatment is the patient-provider relationship, which should be characterized by mutual respect, openness, and a balance in the roles they play in decision-making. Unfortunately, patients frequently describe the patient-provider interface as discriminatory, marginalizing, abusive, and a mirror of the social stratifications in society at large. Both developed and developing nations may attest to this. For poorer, lower class, caste women and men, the experience of discrimination and subpar treatment is even more pronounced, and it is frequently mediated by additional characteristics such as race, religion, linguistic group, etc. However, in order to demonstrate the crucial pathways gender plays in health, we shall concentrate on a small number of illnesses and services in this research.¹¹

In the current cross-sectional study, patients at GNIDSR, a teaching hospital in North Kolkata, were evaluated for gender stereotypes in dental care. The study's inclusion of an equal number of men and women creates a baseline for comparison of the overall findings.

From the statistical analysis of the data collected, it has come to this conclusion that no such gender preference exists in the patient who seek dental treatment in this region.

From the result, it was found out the 9.73% patients prefer female operator and 9.93% patients prefer male operator whereas 80.34% patients have no specific choice of operator for their dental treatment. It is found out that majority of the patients don't have any gender preference while there is slight discrimination present for choosing male operator over female operator which is 0.20% which is insignificant if this study is conducted over a large population.

It is found that for treating their children, parents somehow prefer female operator more than male operator. In a study conducted by School of Dentistry, University of Cuiabá, Cuiabá, MT, Brazil, where the result was found that both children (55.5%) and parents (76.5%) preferred a female professional over a male one.¹³

Mistry and Tahmassebi reported a significant difference in the preference of the participants for the gender of their dental health care provider: male participants favored male students and females preferred female students. In our study, 84% of the children preferred to be treated by a female dentist, regardless of the child's gender.¹⁴

The study not only compared how patients felt about receiving dental care from a male or female dentist, but it also looked into whether patients' reactions to the dentist's gender varied depending on the situation. It's critical to comprehend how patients view their doctors.

A key indicator of the quality of treatment is the patient-provider relationship, which should be marked by mutual respect, candour, and a balance in the two parties' respective decision-making responsibilities. Given that more and more women are enrolling in dental school in India, it is important to understand how changing gender stereotypes affect patients' impressions.

According to studies, male dentists can successfully perform dental work due to their need for muscle. Patients may believe that physicians who are focused in their profession will provide them with better care because they are "more devoted to their jobs versus family," as they may be less likely to be diverted by family obligations and more likely to stay up to date with new developments. In the current study, male dentists were favoured for professional or specialist traits.¹²

Despite the fact that when the attributes were directly compared between the sexes, the majority of the participants held a neutral stance. There may be other factors that outweigh those characteristics and lead one to take a neutral stance. Due to the presumption that all genders contain the same traits that are necessary for treatment. They are equally competent and have the same professional knowledge. Another crucial aspect was the nearly universally strong educational backgrounds of the individuals, which may have contributed to their preferences. Additionally, gender prejudices might not be widespread.

LIMITATION

There are some inherent limitations in this study. Every dental patient develops a particular attitude toward dental care.

Before entering the dental office, every dental patient has a predetermined attitude regarding dental care and the personality of the dentist. Along with how they are feeling, how they want to be treated, and their prior dental experiences are all related. Their preference for a dentist's gender could be influenced by all of these.

The generalizability of this research is constrained by several considerations. The results cannot be generalized to a larger population due to the study sample size and institutional environment. It can be concluded from this study, in this hospital located in suburban area where patients of different education level, socioeconomic strata visit for treatment are giving more priority to the quality over the gender of the operator. So, our society is

progressing from the age old patriarchy and giving more importance to craftsmanship, brilliance and skilfulness. Dental students might be better prepared to interact with their patients by being aware of the preconceived beliefs that patients have about their dentists.¹²

FUTURE DIRECTION

It is surprising to learn that while there are 30:70 male to female students in dentistry institutes in India, this ratio is sadly practically reversed among dental professionals working in the nation. 30% of all female dentistry students never start their own practices following their undergraduate or graduate degrees.¹⁵

Statistical gaps prevent the creation of plans to promote diversity and create inclusion, hence it is crucial that international organizations and nation-specific dental associations gather and disseminate statistics that are stratified by gender. Based on such findings, various initiatives may be adopted to advance gender equality in the academic and research workforce in dentistry.

Finally, it will be crucial to recognize diversity as embracing factors other than gender and race/ethnicity if we are to continue increasing gender equality in the dentistry academic and research profession and achieve the goals of optimal inclusion.

That is, efforts to promote inclusion would benefit from embracing a broader definition of diversity that takes into account traits like ethnicity, age, sexual orientation, gender expression, and handicap status, among others—as well as how these traits overlap.¹⁶

CONCLUSION

The results of this study showed that majority of the participants seeking dental treatment had no preferences for the gender. Participants preferred male dentists over female dentists, particularly for surgical operations and female fortreating children and their aesthetic needs, among those who did have a preference.

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