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Perception and Level of Satisfaction of Patients Seeking Dental Care; A Cross-Sectional Study in a Major Healthcare Center in Saudi Arabia

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Abstract

Introduction: Public awareness towards health in general is increasing throughout our community. Patients are becoming more informed, sophisticated, and demanding. This study aimed to have an overview on how patients perceive dentist-patient relationship and to assess the level of satisfaction amongst Saudi adult follow-up patients seeking dental treatment at the National Guard Health Affairs (NGHA) dental clinics.

Methods: Data was extracted from the questionnaires distributed to the patients in the waiting area of National Guard Health Affairs (NGHA) Dental Clinic.

Results: A total of 129 participants completed the questionnaire. It was found that most of the participants were satisfied with the overall health care services provided at NGHA dental clinic. A significant association was found between education and satisfaction level. The higher the education of the patient is, the lesser satisfaction ($t = 9.3$, $P = 0.003$). However, the mean difference in satisfaction level was not different between gender and among different socio economic status (P value = 0.87, P value = 0.90) respectively.

Conclusion: In this cross-sectional study, we have found that the majority of participants were satisfied with the overall services provided in NGHA dental clinics. Gender and socio-economic difference did not influence the level of satisfaction however education was associated with it. Findings of our study can help us in the improvement of the health services at NGHA since patient satisfaction has a great impact on patient compliance which in turn improves treatment outcome. Future studies should be conducted in multi-center settings to assess the findings of community in general.

Keywords: Perception; Satisfaction; Dentist; Patient-dentist relationship

Introduction

Professionalism is one of the characteristics that distinguish today's dentists, one of the most important element of professionalism, is the consideration of patient satisfaction. The dentist-patient relationship is the heart of successful dentistry [1]. It influences patients' compliance, their use of dental services, and lessen their anxiety which is also associated with health outcomes and health status [1].

Interaction and communication skills are two essential components that help in building up a successful dentist's career [2,3]. Understanding factors and elements that affect satisfaction level can help us improve the quality of services provided by the dental team, strengthen the trust between patients and dentist, and consequently improve oral health [5-7]. Patient-Dentist relationship, which includes trust, greatly affects patients' compliance. These factors further influence the regularity of patient's visits and follow up conformity and satisfaction [8].

A study conducted in India regarding patient satisfaction with dental service reported that most patients were satisfied with the

type of facilities provided by the dental hospitals in India [9]. A study conducted in UK reported lack of trust and confidence among old age people with their dentist [10].

Regionally a study was conducted in Riyadh to assess patient dentist communication and patients' satisfaction with their dentist. This study reported that the factors that were related to good communication and satisfactions with dentist were courtesy, adequate information, moral support, and detailed explanation of procedure and understanding of patients' feeling [11]. Another cross-sectional study was conducted in the city of Dammam, Saudi Arabia related to dental anxiety reported that among 1025 patients, 27% reported dental anxiety [12]. The main reasons for irregular dental visits were lack of time, cost, far situated dental clinics and fear. Patients' satisfaction with orthodontic treatment was assessed by Al Shahrani et al. who reported that patients were satisfied with the treatment and the main factor behind the satisfaction was related to patients and doctor relationship [13].

Public awareness towards health in general is increasing throughout our community. Patients are becoming more informed, sophisticated, and demanding [14]. This study aims to have an

Table 1: Characteristics and demographics of the study population (N = 129).

Socio-Demographics	Frequency	Percentage %	95% CI
Gender			
Males	54	41.9	33.5-50.4
Females	75	58.1	49.6-66.7
Age*			
18-25	37	28.9	20.9-36.5
26-35	38	29.7	21.6-37.3
36-45	39	30.5	22.3-38.2
>46	14	10.9	5.5-16.2
Level of education			
Not educated	4	3.1	0.1-6.1
Intermediate Diploma	12	9.3	4.3-14.3
High School Diploma	57	44.2	35.6-52.8
Higher Education	56	43.4	34.9-52.0
Monthly income*			
<5000 SR	36	30.8	20.2-35.6
5000-9999 SR	35	29.9	19.5-34.8
10000-14999 SR	22	18.8	10.6-23.5
>15000 SR	24	20.5	11.9-25.3

*Missing data

overview on how patients perceive dentist-patient relationship and to assess the level of satisfaction amongst Saudi adult follow-up patients seeking dental treatment at the National Guard Health Affairs (NGHA) dental clinics.

Methods

This cross-sectional study was conducted at the NGHA dental center in King Abdulaziz Medical City (KAMC) in Riyadh, Saudi Arabia. The participants in the study were Saudi adult patients came for follow-up. A sample size of at least 81 patients was needed with a confidence level of 95% and a margin of error of 5%. Data was collected through questionnaires written in Arabic language. A sample size of 129 participants was approached. Permission was taken from the administration of the center to distribute the questionnaires. Patients who were in the dental center for follow up appointments, of age 18 years and above and those who knew Arabic were asked to participate in the study. Patients who met these criteria, but had intellectual development disability were excluded from the study. The questionnaire was explained and given randomly to both male and female receptionists for distribution. Participants' were encouraged to answer the questionnaire based on their personal experience at the dental clinics in KAMC. The questionnaire was composed of 15 questions; the first four questions were about demographics. Other questions were related to the time participants had to wait to get their appointments and the time spent in the waiting area before the appointment. Few questions were to assess dentist's courtesy, knowledge, and quality of treatment. others were to assess patients' satisfaction with the quality of treatment, dental services provided by the help team, and their overall satisfaction. IBM SPSS 20 was used to analyze the data of 129 participants. Descriptive statistical analysis was employed to evaluate patient's satisfaction. Results were depicted in frequency tables and bar charts. T test and Chi square tests were

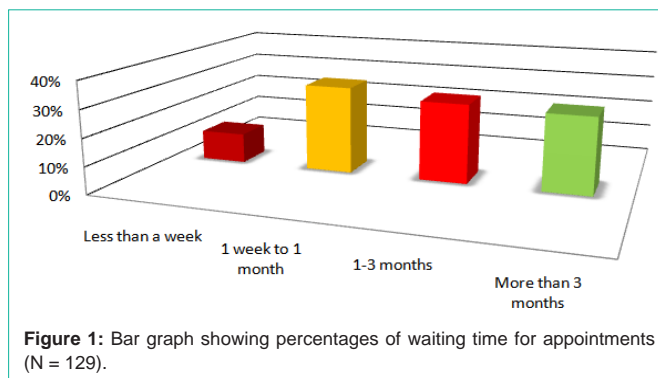


Figure 1: Bar graph showing percentages of waiting time for appointments (N = 129).

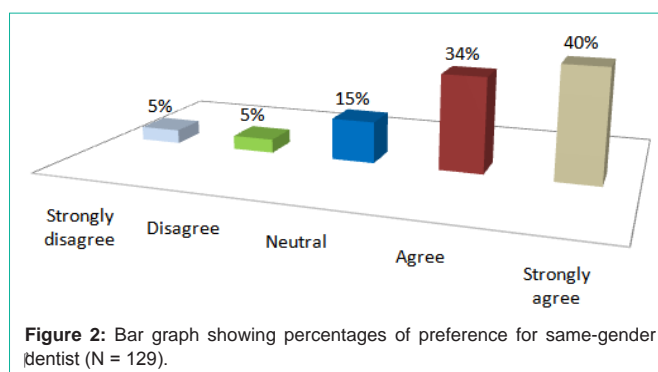


Figure 2: Bar graph showing percentages of preference for same-gender dentist (N = 129).

conducted to see the statistical differences.

Results

The study participants consisted of 41.9% males and about 30% were aged between 36-45 years. Most participants were high school diploma holders followed by participants with bachelor's degree or higher. The majority of the participants that consisted of 30.8% had a monthly income of 5000 Saudi Riyals and less (Table 1). The majority of the participants reported that the dentists were ready to see them at the scheduled time while approximately 40% reported that the dentists were either a little or very late.

The majority of the participants reported that NGHA dentists were welcoming, courteous, and respectful. Most participants reported that the treatment plan was explained by their dentists in a language they can understand, and were satisfied with the services provided by the dental team. While 52.4% of the participants felt satisfied with the services provided by NGHA dental services, 25.4% of the participants were very satisfied, and 9.5% of the participants were not satisfied with the provided services. Only few of the participants reported a neutral opinion (7.9%), and about 5% were extremely unsatisfied with the services (Table 2, Figure3). Survey also showed that most of the participants waited from one week to more than three months to get an appointment (Figure 1). Most of the participants preferred a dentist of the same gender (74%) while 15% of the participants had no preference, 5% of the participants preferred a dentist of the opposite gender, and 5% strongly preferred a dentist of the opposite gender (Figure 2). Approximately 75% of participants agreed or strongly agreed that they were satisfied with the overall services where only about 15% disagreed or strongly disagreed. Independent sample T test was conducted to compare the level of satisfaction between males and females; the mean satisfaction score for males was 23.4 and the mean

Table 2: Patients' perceptions for the doctor and clinical staff (N = 129).

Patients' perceptions	Frequency	Percentage %	95% CI
Dentist was ready to see me on time'			
Yes	77	60.2	51.2-68.2
No, little late (less than 15 minutes)	27	21.1	13.9-28.0
Very late (more than 15 minutes)	23	18	11.2-24.4
Patient Felt the Dentist was Welcoming			
Strongly disagree	3	2.3	0.3-4.9
Disagree	10	7.8	3.1-12.4
Neutral	21	16.3	9.9-22.6
Agree	53	41.1	32.6-49.6
Strongly agree	42	32.6	24.5-40.6
The Dentist was Courteous and Respectful			
Strongly disagree	3	2.3	0.3-4.9
Disagree	2	7.8	0.6-3.7
Neutral	15	16.3	6.1-17.2
Agree	49	41.1	29.6-46.4
Strongly agree	60	32.6	37.9-55.1
The Dentist Knows Enough about the Patient History'			
Strongly disagree	4	3.1	0.1-6.1
Disagree	12	9.4	4.3-14.3
Neutral	27	21.1	13.9-28
Agree	49	38.3	29.6-46.4
Strongly agree	36	28.1	20.2-35.6
The dentist explained the treatment plan in an understandable language			
Strongly disagree	4	3.1	0.1-6.1
Disagree	6	4.7	10-8.3
Neutral	16	12.4	6.7-18.1
Agree	57	44.2	35.6-52.8
Strongly agree	46	35.7	28.7-42.6
Patient felt satisfied about the treatment			
Strongly disagree	5	3.9	1.1-6.7
Disagree	13	10.1	5.7-14.5
Neutral †	14	10.9	6.3-15.4
Agree †	56	43.4	36.2-50.6
Strongly agree †	41	31.8	25-38.5
Dentist took enough time to listen to patient concerns			
Strongly disagree	5	3.9	1.1-6.7
Disagree	14	10.9	6.3-15.4
Neutral	15	11.6	7.0-16.3
Agree †	62	47.1	40.8-55.3
Strongly agree †	33	25.6	19.2-31.9
Patients felt satisfied about the services provided by the help team			
Strongly disagree	0	0	0
Disagree	8	6.2	2.7-9.7
Neutral	10	7.8	3.9-11.6

Agree ↑	69	53.5	46.2-60.7
Strongly agree ↑	42	32.6	25.8-39.4
Generally, patients were satisfied about the services provided*			
Strongly disagree	6	4.8	1.6-7.7
Disagree	12	9.5	5.1-13.5
Neutral	10	7.9	3.9-11.6
Agree ↑	66	52.4	43.9-58.4
Strongly agree ↑	32	25.40%	18.5-31.1

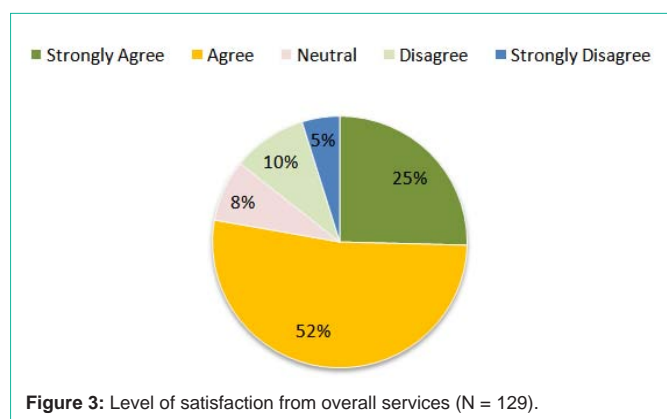


Figure 3: Level of satisfaction from overall services (N = 129).

score for females was 23.6 with no statistically significant difference between males and females mean satisfaction level (P=0.87).

Independent sample T test was run to compare the mean satisfaction level of younger adults aged below 36 and older adults aged 36 or above. The mean scores for satisfaction for the younger group were 24.2 and 24.6 for the older adults. With respect to the level of satisfaction, results of the T test indicated that there was no statistically significant difference between the two groups.

The mean satisfaction scores for patients with lower income (less than 10,000 Riyals per month) and patients with higher income (10,000 riyals or more per month) were 23.6 and 23.7, respectively. Results of the T test analysis (t = 0.12, P = 0.90), indicated that monthly income was not associated with higher levels of satisfaction.

The mean satisfaction scores for patients with lower educational level (No college/university education) and patients with higher educational level (with college/university education) were 24.7 and 22.1, respectively. Results of the analysis (t = 9.3, P = 0.003), indicated that having college/university degree was associated with lower levels of satisfaction.

A chi-square test was run to assess the difference between male and female perception regarding gender of dentist. Sixty percent of females agreed or strongly agreed that they prefer a female dentist while only 35% of male patients preferred a male dentist based on chi-squared test the difference was insignificant with the P value 0.087.

Discussion

Quality of care is a major concern of health care providers all over the world. An important element of quality is patients' satisfaction with the services provided. Patients' satisfaction has been investigated in many studies in various countries. There are many factors that can

affect patients' satisfaction, which includes, but are not limited to: waiting times, feeling dentist hospitality, patients' history awareness, treatment education in an understandable language, and providing enough time to listen to patients' concerns.

It was found in this study that more than half of patients were satisfied with the services provided by the help team. Comparing this factor to another study which was conducted in Turkey with a sample size of 641 participants. Patients were satisfied by the services which were provided in the outpatient clinics by a mean score of 96.2±14.0. The result of this part of study is similar to ours [14].

After dividing the participant into two groups; elderly and young participants, the satisfaction differences were taken into consideration. It was found that elderly participants were less satisfied than younger ones by 41.08% but the mean difference was not statistically different. On the contrary, a study was conducted in Brazil with a sample size of 495 elderly participants to assess their satisfaction, 90.5% of the participants were satisfied by the services provided [15].

In this study we had 129 participants (54 males and 75 females). We compared the levels of satisfaction among males and females. T test indicated that there is no statistically significant difference between males and females mean satisfaction level. Comparing this result to a study which was conducted in Western Cape, South Africa of a sample size of 200 reveals that females were more satisfied than males [16]. The strong agreement regarding the gender preference indicated the influence of social and cultural norms of our country and the difference in preference were not statistically different among gender.

Our results showed that the level of education was significantly related to the level of satisfaction, which shows that of the higher the educational attainment is, the higher the expectations becomes, hence our results similarly demonstrated the same phenomenon that those who had education level equal or higher than college were less satisfied with the services. Likewise a study conducted in 2012 also reported association between education and level of satisfaction [17].

A comparison between patient's income and level of satisfaction had showed no significant difference. This indicates that monthly income does not play a significant role in patient's perception and satisfaction in terms of oral health care. Conversely, a study performed in UK showed that people with a low income have less satisfaction level [18]. However, a study conducted in 2000 in Turkey and 2012 in Switzerland reported no association of income level with satisfaction level [19,20].

This study has few limitations such as subjective tool was used to assess the satisfaction level of the patients. Moreover our findings

cannot be generalized as it was conducted in a single center and among Arabic speaking patients only. Lastly we encounter few missing data as there were respondents who did not response to few stems. Future studies should be conducted on larger sample size, and in multi center settings to assess the findings of community in general.

Conclusion

In this cross-sectional study, we have found that the majority of participants were satisfied with the overall services provided in NGHHA dental clinics. A comparison between participants' level of education and satisfaction levels indicated that having college/university degree was associated with lower level of satisfaction. These findings can be used as a tool in improving the health services at NGHHA since patient satisfaction has a great impact on patient compliance which in turn improves treatment outcome. Future studies should be conducted with a larger sample size, and in multi center settings to assess the findings of community in general.

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