OPEN ACCESS ORIGINAL ARTICLE

EXPLORING THE REASONS FOR SEEKING PROSTHODONTICS TREATMENT FROM UNQUALIFIED PRACTITIONERS IN PESHAWAR

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ABSTRACT

Objectives: The study focused on investigating the reasons why participants visited quacks for prosthodontics therapy, what factors motivated them to do so, and how satisfied they were with both quacks and qualified dentists.

Methodology: This cross-sectional study was conducted between June 2023 and October 2023. A total of 110 patients, aged between 45 and 65 years, who had visited quacks for prosthodontics procedures in the past six months, were interviewed at three different well-equipped clinics in Peshawar.

The collected data on their motivations/reasons for seeking treatments from quacks were collected through a pre-designed and pre-tested questionnaire and analyzed through basic statistical methods.

Results: Female to male ratio was 1: 1.75 in the current study. The pattern of awareness and reasons for visits to the quacks was observed same for both genders (P > 0.05). The primary reason for visiting the quack was often a lack of awareness. Other factors included economic considerations, proximity to one's residence, the convenience of a single appointment, and referrals.

The level of education and age of the participants did not have a significant effect on the scenario (P > 0.05). Many of the participants expressed dissatisfaction with the treatment they received from the quacks and stated that the services offered by qualified dentists were better, safer, and less painful.

Conclusions: Awareness programs for altering the attitudes of the community are mandatory. Furthermore, it is essential to implement strictly established laws to stop the illegal practice of quacks. In addition, doctors are deployed to rural areas for practice.

Key Words: Prosthodontics Patients, Reasons for visits quacks; District Peshawar.

This article may be cited as: Asma, Wagma, Anwar S, Khan AH. Exploring the Reasons for Seeking Prosthodontics Treatment from Unqualified Practitioners in Peshawar. Pak Oral Dent J 2024; 44(1):72-77.

INTRODUCTION

Quackery in dentistry has been a persistent issue for decades¹. A dental quack refers to an individual who lacks the necessary qualifications but deceitfully asserts expertise in diagnosing and treating dental diseases. Many of these quacks acquire their dental knowledge through familial inheritance or by observing experienced professionals while working as assistants in dental clinics¹.

So, a quack is a fraudulent medical practitioner who falsely claims to be professionally competent but lacks the necessary expertise and qualifications. These quacks, due to their lack of proper knowledge, are responsible for the spread of hepatitis B and C, as well as other life-threatening viral infections, thereby endangering the lives of innocent citizens². Disturbingly, there have been reports of broken jaws and even a near loss of an eye when a "quack" improperly extracted a tooth³.

These unqualified practitioners are running their practice successfully in comparison to qualified dentists due to their low cost, convenient proximity to patients, and strong social connections within the community. Moreover, they falsely promise their patients quick and effortless access to professional medical care.

Pakistan Oral & Dental Journal Vol 44, No. 1 (January-March 2024)

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Received for Publication: Nov 8, 2023
Revised: Feb 15, 2024
Approved: Feb 16, 2024

The practices performed by these unqualified individuals are highly undesirable, as they pose a significant risk to the patient's well-being. They irresponsibly extract teeth without following proper sterilization procedures and replace them with self-cure acrylic materials⁴. Additionally, some of these impostors engage in specialized procedures, such as fabricating prostheses like dentures and crowns.

Quackery is prevalent in both urban and rural areas, including the capital city⁵. The increase in quackery can be attributed to insufficient infrastructure, an inadequate healthcare delivery system, a shortage of qualified human resources, a lack of coordination among stakeholders, and inadequate monitoring³. Extensive literature indicates a significant occurrence of visits to dental quacks in developing countries⁶. A previous study reported that 42% of patients sought treatment from quacks for various health issues⁶.

The prosthodontics patients are provided with prostheses by unqualified individuals/ quacks, to replace their natural teeth³. Extracted or acrylic teeth are often used to make these prostheses, and they are then fixed to the adjacent natural teeth using self-curing acrylic resin⁷. In some instances, wires are utilized to secure the tooth or denture by supporting adjacent teeth⁷. These temporary dentures can be referred to as quick-fix dentures. These procedures have significant risks for patients, such as mucosal membrane inflammation, bone loss, hyperplastic growth, and even the loss of adjacent teeth⁸.

To design an effective policy, it is essential to understand the reasons and factors behind visits to these healthcare providers. Besides, there is a lack of available data regarding dental patients in Peshawar who have lower levels of education and different lifestyles, living environments, personal hygiene, and dietary habits compared to the developed world. Consequently, this study aims to investigate the reasons for peoples' visits and examine the factors that influence their choice to seek prosthodontics procedures from unqualified practitioners.

METHODOLOGY

This cross-sectional study was carried out by postgraduate residence of prosthodontics in district Peshawar between June 2023 and October 2023. The sample size was calculated using the formula: $n = Z\alpha 2P (1-P)/d2$. The prevalence was 50%, the confidence interval was 90%, and the α error was 10%. The calculated sample size was 96. The sample size was raised to 106 to account for a 10% non-response rate, and then rounded to 110.

So, the study included the required number of patients (70 males and 40 females) who visited the

quacks for prosthodontics procedures in the past months and were willing to participate (Table 1). The age range of these patients was between 45 and 65 years, and they had similar socioeconomic status.

Patients who were not willing to participate in the study or had a history of oriental/psychiatric diseases were excluded. The study received approval from the local ethical research committee related to health. The participants were then informed about the study objectives and assured of confidentiality. Written consent was obtained from all participants.

The questionnaire was designed and pre-tested to ensure its validity and that respondents were able to understand the questions. Most of the questions in the questionnaire were closed-ended, while some were multiple-choice items that included alternative statements. The questions in the language of the participants were centered around demographic characteristics such as age, gender, family income, marital status, and education level.

Moreover, individuals were asked about their oral hygiene practices, utilization of dental services, and their most recent visit to a non-professional dentist, the reasons for seeking treatment from unqualified individuals for prosthodontics problems, and their experience with the methods of treatment.

The questionnaire included inquiries about their knowledge of qualified practitioners, understanding of the correct design of dentures, and whether they had previously visited an unqualified practitioner, and awareness of different dental specialties. Additionally, participants were asked about their attitude toward quack practices and whether they believed they should be eradicated, supported, or penalized.

The following scoring system was used to evaluate the patient's level of awareness and attitude: Score 0: No awareness of any of the four questions, score 1: Awareness of only one question, score 2: awareness of two questions, Score 3: Awareness of three questions, and Score 4: Awareness of all four questions. Additionally, a positive attitude was scored as 1, while a zero score was given for having a negative attitude.

After that, the patient's oral cavity was examined by two doctors for clinical findings and categorized them as Mild (if redness was observed) or Moderate (if there was swelling, caries, or ulceration with or without redness), or severe (if suppuration, hyperplastic growth, bone loss, or pathological tooth migration were present with or without any of the mild or moderate signs).

Statistical analysis

The SPSS version, a statistical package for social

sciences, was used to analyze the data. A significance level of 0.05 was chosen, and frequency distribution tables were generated to display both numbers and percentages.

RESULTS

In the current study, 63.6 percent of the participants were male, while 36.4% were female. It was observed that there were more male patients in the age groups of 51 and 54 years, whereas females were more prevalent in the age groups of 55 and 59 years (Table 1). The literacy rate was found to be similar for both genders, with no significant difference (P> 0.05). All participants had the same socioeconomic status. It was noted that female patients showed a higher level of awareness (P <0.05) regarding oral health care and brushing habits, and they also visited the dentist regularly.

Table 2 shows that out of the participants, 71 (64.5%) were unaware of any qualified practitioner, 63 (57.3%) were unaware that dentures are correctly designed, 66 (60%) were not even aware that they had been treated by an unqualified practitioner and only 13

(11.8%) knew about the different specialties in dentistry. Approximately 61 (55.5%) of the participants believed that such practices should be abolished, while 44 (41.8-%) believed that they should be punished. However, a small percentage of 03 (2.7%) still believed that these practices should be encouraged.

Seventy-three (66.4%) of the participants were informed about the quacks by friends and relatives. Nearly 89 (80.9%) of participants paid less than 2000 Pakistani rupees for the defective denture. And 89 (80.9%) of participants received the faulty prosthesis in just one appointment.

Table 03 shows that pain was the most frequently reported issue, observed in 34.6 % of patients. Loose prosthesis was the second most common problem, found in 23.6 % of participants, while halitosis was the least commonly observed issue, reported by only 8.2 % of patients. When asked about the reasons for visiting a quack, 32.7-% of participants stated it was due to a lack of awareness. Other reasons included economic factors, accessibility, limited appointment availability, comfort, and referrals (Table 03).

Age range	Male	Percentage	Female	Percentage
45-49	15	21.4	08	20.0
51-54	21	30.0	11	27.5
55-59	20	28.6	14	35.0
60-64	14	20.0	07	17.5
Total	70	63.6	40	36.4

TABLE 1: DISTRIBUTION OF SUBJECTS BY AGE AND GENDER

Question	Male Response (No & Percent- age)	Female Response (No & Per- centage)
Are you aware of a qualified		
Yes, I am aware.	24(34.3)	15 (37.5)
No, I am not aware.	46 (65.7)	25 (62.5)
Are you aware that dentures	are correctly designed?	
Yes, I am aware.	30 (42.9)	17 (42.5)
No, I am not aware	40 (57.1)	23 (57.5)
Are you aware that you have	been to a quack?	
Yes, I am aware.	28 (40.0)	16 (40.0)
No, I am not aware	42 (60.0)	24 (60.0)
Are you aware of the various	specialties in dentistry?	
Yes, I am aware.	08 (11.4)	05 (12.5)
No, I am not aware.	62 (88.6)	35 (87.5)
Do you feel such practices shou	lld be?	
Abolished	38(54.3)	23 (57.5)

TABLE 2: KNOWLEDGE OF THE RESPONDENTS

Encouraged	02 (2.80)	01~(2.50)
Punished	30 (42.9)	16 (40.0)
How did you know about the quack?		
Friends/ relatives	48 (68.6)	5(62.5)
Media/advertisement	10 (14.3)	07 (17.5)
Not mentioned	12 (17.1)	10 (25.0)
Charges paid for the denture Pak. Rupees	3	
<2000	58 (82.9)	31 (77.5)
2000 4000	05(7.10)	03 (7.50)
>4000	07 (10.0)	06 (15.0)
Number of appointments		
One	57 (81.4)	32 (80.0)
Two	07 (10.0)	05 (12.5)
Three	06 (15.0)	03 (7.50)

TABLE 3: FINDINGS OF THE RESPONDENTS

Findings	Number	Percentage
Reason for visiting quack.		
Economical	22	20.0
Lack of awareness	36	32.7
Accessibility	18	16.4
Quick Treatment	13	11.8
Comfortable	10	9.10
Referral	11	10.0
Complaints of the Participants		
Pain	38	34.6
Loose Prosthesis	26	23.6
Material Used	14	12.7
Bleeding gums	12	10.9
Poor Esthetics	11	10.0
Halitosis	09	08.2
Awareness Score		
Zero	31	28.2
One	35	31.8
Two	26	23.6
Three	14	12.7
Four	04	03.7
Attitude of the Respondents		
Positive	78	70.9
Negative	32	29.1
Clinical Findings		
Mild	38	34.5
Moderate	42	38.2
Severe	30	27.3

Table 04 presents the respondents' opinions on the quality of treatment provided by qualified dentists compared to dental quacks. An overwhelming 98% of patients reported having a negative experience after receiving treatment from dental quacks, leading them to express their reluctance to visit such practitioners in the future.

DISCUSSION

The findings of the current study indicate that individuals visited quacks primarily due to unawareness, low economic status prevents them from affording dental treatment, and limited access to dental care. A previous study also found that lack of awareness about dental treatment, proximity to quacks, and cost were the main contributing factors to this phenomenon⁹. These reasons remained consistent across different age groups and education levels in the present study. Another earlier study highlighted that age and education level, which are indicators of basic health knowledge, significantly influenced visits to dental quacks⁶.

In the current study, none of the participants achieved a score of 4 for awareness. However, a previous study found that as awareness scores increased, the disease pattern decreased³. This highlights the importance of dental clinicians actively promoting awareness at various levels - individual, community, national, and global. It is also the responsibility of the community leaders to be engaged in campaigns aimed at improving awareness at the individual level.

Recent research has shown that teachers can effectively educate rural communities about the dangers of quackery in their native languages¹. One potential approach is to involve dental college students in behavioral interventions, where they educate individuals about the risks associated with quickfix prostheses and treatments. It is valuable to inform people about the potential transmission of life-threatening infections like hepatitis B and C, as well as HIV, through these practices. The financial burden may increase exponentially if an infection or permanent disability occurs.

The second prevalent reason for seeking prosthodontics procedures from quacks was the affordability factor. The findings of this study indicate that in areas with limited access to government-funded dental clinics, the utilization of dental quacks was more widespread. Out of the participants in the current study, eightynine (80.9%) paid less than 2000 Pakistani rupees for their prostheses. Despite the perception that treatment from a quack was cheaper, it was generally considered to be of lower quality compared to that provided by a qualified dentist³.

Moreover, an increase in the budget for dentistry

has proven effective in preventing numerous community-based oral diseases¹⁰. Furthermore, the inclusion of dental insurance in policy plans would enable individuals to receive optimal dental treatment^{10,11}. Therefore, it is imperative for authorities and professionals to advocate for the implementation of beneficial insurance schemes for the public¹².

The third common reason mentioned by the participants was the accessibility to visiting unqualified practitioners. It has been suggested that the increase in private colleges in Peshawar could be utilized to provide affordable or free treatment. This could help bridge the economic gap between expensive dental treatment in private clinics and the general public¹¹. The growing number of private dental colleges has led to a steady increase in the number of dental graduates, which brings hope for the future.

Currently, one of the most common challenges in achieving a balance between supply and demand in this area is the dentist-to-population ratio¹³. Besides, there is a significant disparity in this ratio between rural and urban areas¹³. Accessibility to dental services for everyone, known as the inverse care law, is a major issue in our system¹².

In addition, the lack of a primary healthcare approach in dentistry has resulted in an unfortunate situation. The current health setup in rural areas lacks provisions for dental care, which is an important component of overall healthcare¹⁴. Several studies have shown that there is a severe shortage of equipment, materials, and essential facilities in the dentistry department, making it challenging to provide even minimal curative services to a large population¹⁵.

Only a small number of individuals in the communities who sought treatment from quacks showed any loyalty toward their practices. A significant portion of the participants in the study expressed dissatisfaction with the treatments they received from these unscrupulous clinics. They vowed to avoid visiting such unethical establishments in the future and expressed their willingness to participate in awareness programs related to this issue. Likewise, satisfaction with dental treatments provided by quacks was generally low across various specialties, with Prosthetic treatment being the most frequently performed by these individuals in Sri Lanka¹⁶.

Therefore, it is strongly recommended that there is an urgent requirement for heightened vigilance and stringent enforcement of government policies to eradicate fraudulent dental practices in the country. Regular inspections and the closure of dental clinics and hospitals that fail to meet the necessary criteria will serve to discourage fraudulent activities and encourage the adoption of ethical standards. Policymakers must involve dental clinicians in the decision-making process, and the implementation of strict laws is essential to prevent unlicensed practice in the field of dentistry.

The study had a limitation in terms of budgeting as it was not funded by any governmental, private, or nonprofit funding bodies. This lack of budget constrained the research to a limited sample size. To validate the findings, further studies with larger populations in diverse communities worldwide are necessary. The authors conducted this study with the community's best interest in mind and have no conflicts of interest to disclose.

CONCLUSIONS

This study's findings show that public perceptions and reliance on dental quacks are still a significant concern in both rural and urban communities. In this regard, healthcare professionals, media outlets, teachers, and community leaders may contribute positively to addressing this problem. Additionally, safe, and easily accessible dental services should be available to the residents of this region. Furthermore, it is essential to have qualified dentists specializing in various fields, particularly prosthodontics, working in rural areas at a reduced cost to discourage the unlawful activities of dental mechanics/quacks.

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