

Original Research

Analyzing Factors Influencing The Choice Of Alternative Prosthodontic Solutions: A Cross-Sectional Investigation Into Quack-Seeking Behavior

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ABSTRACT:

Background: Given the limited accessibility of qualified practitioners for a significant portion of the population, unqualified practitioners have become a common alternative at the roadside. This article focuses on the outcomes of prosthetic treatments provided by these unqualified individuals as substitutes for natural teeth. **Methods:** In this current study, our investigation delved into the motivations driving individuals to seek the services of unqualified practitioners, the complications arising from the use of fixed dentures provided by these practitioners, and proposed solutions to address the issue of quackery. We collected data through a closed-ended questionnaire administered to 66 participants. **Results:** A significant finding from our study reveals that almost 60% of the subjects encountered issues with their dentures. Alarming, 78.2% of participants lacked awareness of any qualified practitioners. The primary motive for consulting unqualified practitioners was attributed to a lack of awareness. Other contributing factors included economic considerations, proximity to their residence, the appeal of a convenient fixed solution, the possibility of a single appointment, and referrals. **Conclusion:** To address the challenges identified, implementing awareness and orientation programs emerges as a viable solution. These initiatives can effectively disseminate knowledge, foster attitude changes, and promote better practices. Moreover, it is crucial to enact stringent laws aimed at abolishing the practice of unqualified practitioners, reinforcing a commitment to quality and safety in healthcare.

Keywords: Faulty prosthesis, quack, street dentistry, unqualified dentist

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INTRODUCTION

In the 21st century, marked by advancements like nanodentistry, computer-aided design-computer-aided manufacturing, lasers, rotary endodontics, and zygomatic implants, it is surprising that some individuals still turn to unqualified practitioners or quacks for dental care¹. The issue of quackery in dentistry is not a recent phenomenon but has persisted since the earliest days when those with dental problems sought relief from practitioners of varying competence. The historical backdrop reveals a prolonged existence of flamboyant dental practitioners, dating back to the 1600s in Paris, England, and London². This prevalence was largely due to the absence of a comprehensive educational

system for dentist training, allowing unskilled practitioners to dominate the field³. Even after the establishment of the world's first dental school in Baltimore in 1840, a substantial number of dentists continued to receive training through the preceptorial method, contributing to the persistence of substandard practices. The problem of quackery persists on a global scale, notably in developing countries such as India, China, and Nepal. Accusations of unqualified dental practices remain a significant concern, emphasizing the need for enhanced educational systems and stricter regulations to ensure the delivery of quality dental care in the contemporary era. Quackery, a term laden with negative connotations, refers to the unethical and deceptive

practices involving the diagnosis and treatment of diseases. It involves the promotion and implementation of unproven and ineffective medical methods, typically driven by financial motives or a desire to maintain a semblance of authority⁴. Delving deeper into the definition provided by the Random House Dictionary, a "quack" is characterized as a fraudulent or uninformed individual who falsely poses as possessing medical expertise. These individuals may engage in misleading activities, presenting themselves as skilled practitioners despite lacking the necessary qualifications or knowledge. The motivations behind quackery often intertwine with financial gains, as unscrupulous practitioners exploit vulnerable individuals seeking relief from health concerns. The term extends beyond mere incompetence and implies a deliberate intent to deceive. In essence, quackery undermines the principles of evidence-based medicine and poses risks to the well-being of those who fall victim to these deceptive practices. Recognizing and combatting quackery involves promoting public awareness, implementing stringent regulations, and fostering a healthcare environment grounded in genuine expertise and ethical standards⁵. Quacks in the dental field often fall into two categories: dentex and dental technicians who choose to assume the role of dentists by establishing private practices without proper supervision. A dentex, according to the explanation provided, possesses qualifications to perform extractions on children, as well as undertake filling and cleaning procedures. On the other hand, dental technicians lack the qualifications to enter a patient's mouth, even under the supervision of a dentist. Their specialization typically revolves around crafting prosthetic devices such as crowns and dentures⁶. The consequences of these unqualified individuals practicing dentistry can be severe, as highlighted by cases involving patients rushed to the hospital with broken jaws, severe infections, and even instances where improper tooth extraction nearly resulted in the loss of an eye. Such incidents underscore the risks associated with dental quackery and emphasize the importance of stringent regulations to ensure that individuals engaging in dental practices possess the necessary qualifications and expertise to safeguard the well-being of patients. The ongoing research endeavors to narrow the divide between access to professional dental care and individuals resorting to unqualified practitioners by investigating the motivations behind such visits and the complications arising from the use of fixed dentures provided by these practitioners. It underscores the urgency for the dental profession to formulate a comprehensive strategy to curtail the prevalence of these deceptive practitioners and work towards the global eradication of quackery. In recognizing the challenges posed by unqualified practitioners, the dental profession can play a pivotal role in developing measures to enhance public awareness, strengthen regulations, and promote

legitimate dental practices. By addressing the root causes that drive individuals to seek services from quacks and shedding light on the potential complications they may face, the profession can contribute significantly to safeguarding the oral health and overall well-being of the population^{7,8}. It is a call to action for the dental community to unite in devising effective strategies that prioritize the delivery of quality dental care and eliminate the risks associated with unqualified practitioners on a global scale.

MATERIALS AND METHODS

The study received approval from the Ethical Committee of the institute, demonstrating adherence to ethical standards. The participants consisted of all patients visiting the Department of Prosthodontics within a one-year timeframe who had availed themselves of so-called quick-fix dentures. From an initial screening of 4879 individuals, 72 patients with quick-fix prostheses were identified, and of these, 66 actively participated in the study. Prior to their involvement, participants were verbally briefed on the study's objectives, and written consent was obtained.

Data collection employed a two-fold approach:

- 1. Interview using a questionnaire:** Participants were engaged in structured interviews utilizing a questionnaire, providing a systematic method to gather information on various aspects related to their dental experiences and the use of quick-fix dentures.
- 2. Oral examination:** A comprehensive oral examination was conducted, allowing for a detailed assessment of participants' oral health conditions, with a focus on the impact and outcomes associated with the quick-fix prosthesis. This meticulous methodology aimed to obtain a nuanced understanding of the factors influencing the use of quick-fix dentures and the corresponding oral health implications, contributing valuable insights to the study's objectives.

The process of developing the questionnaire involved transforming responses from open-ended questions posed to patients into a structured, closed-ended format. To ensure the questionnaire's effectiveness, it underwent a rigorous validation process⁹. Firstly, the draft questionnaire was presented to ten patients for face validity assessment. This involved evaluating whether the questions were clear, comprehensible, and logically sequenced. Following this initial phase, the same set of patients, alongside three prosthodontists, were invited to critique the questionnaire for content validity, ensuring that the questions adequately captured the intended information. The reliability of the questionnaire was assessed using Cronbach's alpha coefficient, resulting in a commendable value of 0.8, indicating strong internal consistency. Subsequently, the questionnaire received final approval from the initial ten patients and three prosthodontists involved in the validation process¹⁰. No modifications were

deemed necessary, and these ten patients were seamlessly integrated into the study cohort, affirming the questionnaire's reliability and validity for use in the research.

Following the data collection phase, the study evaluated the awareness level and attitude of each participant. The assessment involved assigning scores based on the correctness of responses to four specific questions. The final scoring system was implemented as follows:

- **Score 0:** Assigned if the participant demonstrated no awareness for any of the four questions.
- **Score 1:** Allocated when the participant exhibited awareness for only one question.
- **Score 2:** Assigned if the participant displayed awareness for two questions.
- **Score 3:** Given when the participant had awareness for three out of the four questions.
- **Score 4:** Awarded if the participant demonstrated awareness for all four questions.

This scoring methodology aimed to quantify and categorize the participants' levels of awareness, allowing for a comprehensive analysis of the data with regard to their understanding of the key aspects covered in the study. In the assessment of participants, a scoring system was implemented to gauge their attitudes. A positive attitude was assigned a score of 1, while a negative attitude received a score of 0. The study further delved into understanding the motivations behind seeking current consultations and choosing to visit a quack for prosthesis. Additionally, the inquiry extended to how participants became aware of the quack, the financial aspect, including the amount paid to the quack, and logistical details such as the number of appointments involved in the prosthesis-making process^{11,12}. Subsequent to this information gathering, each participant underwent an intraoral examination to identify and document clinical findings. This comprehensive approach aimed to capture not only the attitudes and motivations of participants but also the practical aspects and clinical outcomes associated with their experiences, providing a well-rounded understanding of the study's focus.

The oral examination, a crucial component of the study, was conducted by two observers who underwent calibration to ensure consistency and reliability in their assessments. Clinical findings were systematically graded based on the observed manifestations:

1. **Mild:** Assigned when redness was identified during examination.

2. **Moderate:** Applied in cases where swelling, caries, or ulcers were present, either with or without redness.
3. **Severe:** Indicated in instances of suppuration, hyperplastic growth, bone loss, or pathologic tooth migration. These severe signs might be present independently or in conjunction with mild or moderate indicators.

This grading system allowed for a nuanced classification of the oral health conditions observed during the examination, facilitating a detailed analysis of the participants' clinical status¹³. The calibrated examination by two observers enhanced the reliability and objectivity of the clinical findings, contributing to the overall robustness of the study.

RESULTS

The study encompassed a total of 66 participants, and Table 1 provides an overview of the demographic characteristics within this population.

Key findings from the demographic analysis include:

1. **Awareness of Qualified Practitioners:** A significant proportion, approximately 78.2% of participants, indicated a lack of awareness regarding any qualified dental practitioners.
2. **Knowledge about Scientifically Designed Dentures:** More than half, specifically 54.3% of participants, were unaware that dentures undergo scientific design.
3. **Recognition of Visiting a Quack:** Half of the participants, accounting for 50%, were not cognizant of having visited an unqualified practitioner or quack.
4. **Awareness of Specialties in Dentistry:** A limited 8.2% of participants were acquainted with the various specialties within the field of dentistry.
5. **Attitudes towards Unqualified Practices:** Approximately 52.8% of participants believed that such practices should be abolished, while 33.1% advocated for punitive measures. A smaller percentage, 2.2%, surprisingly expressed a view supporting the encouragement of these practices.

These findings underscore a considerable lack of awareness and understanding within the study population regarding qualified dental practitioners, the scientific aspects of denture design, and the risks associated with visiting unqualified practitioners¹⁴. Additionally, diverse opinions were revealed regarding the appropriate measures to address such practices, emphasizing the need for targeted interventions and education within the community.

Table 1: Demographic status of the population

| Status | Number (%) |
|------------|------------|
| Age(years) | |
| 15-24 | 2(3.0) |
| 25-34 | 6 (9.0) |
| 35-44 | 17 (25) |

| | |
|-------|-----------|
| 45-54 | 20 (29.5) |
| 55-64 | 12 (18) |
| 65-74 | 10 (15.1) |

Table 2: Gender distribution

| Sex | Number |
|--------|--------|
| Male | 42 |
| Female | 24 |

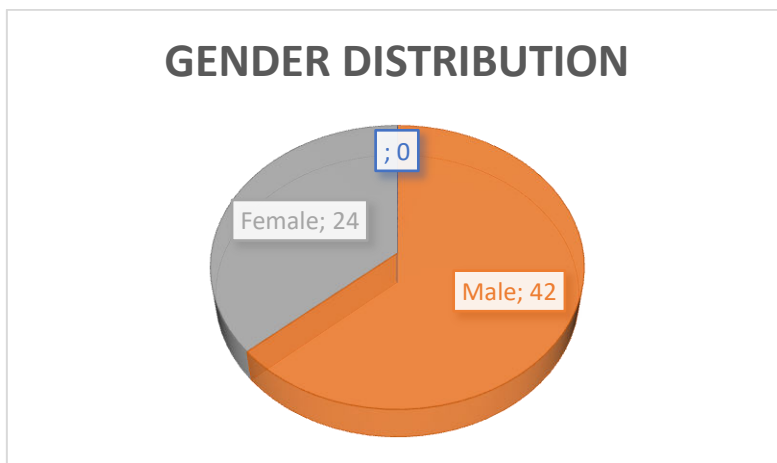


Table3: Kuppuswamy scale

| SES (Kuppuswamy scale) | Number(%) |
|------------------------|-----------|
| upper | 3(6.4) |
| Upper middle | 9 (13.6) |
| Lower middle | 23 (18.9) |
| Upper lower | 14 (33.8) |
| Lower | 18 (27.3) |

The study reveals notable insights into the sources of information, financial aspects, and procedural details among the participants:

- 1. Source of Awareness about Quacks:** A significant majority, approximately 56.8% of participants, learned about the quack through recommendations from friends and relatives. This suggests a reliance on informal networks for healthcare decision-making.
- 2. Financial Aspect of Faulty Dentures:** A striking 90.9% of participants paid less than 500 rupees for the faulty dentures, highlighting a prevalent trend of opting for cheaper alternatives, potentially contributing to compromised quality.
- 3. Procedural Efficiency:** The study found that nearly 80.1% of participants underwent the process of obtaining faulty prostheses in a single appointment. This suggests a preference for quick-fix solutions, possibly driven by convenience or financial considerations.

These findings shed light on the significant role of social networks in influencing healthcare choices, the economic factors influencing decisions related to dental care, and the preference for expeditious prosthesis procedures. Understanding these dynamics is crucial for developing targeted interventions and

educational campaigns to steer individuals towards safer and more informed dental practices.

DISCUSSION

The findings from this research illuminate a complex interplay of factors that drive individuals to seek dental care from unqualified practitioners, commonly known as quacks. Chief among these factors is a pervasive lack of awareness, as a significant majority of participants were found to be uninformed about qualified dental professionals, the scientific nuances of denture design, and the potential risks associated with consulting unqualified practitioners¹⁵. This ignorance highlights a critical need for targeted educational efforts to empower individuals with the knowledge necessary for making informed decisions about their dental health. Moreover, the study sheds light on the substantial influence of socioeconomic status, with a notable proportion of participants opting for quack services due to financial constraints. The preference for lower-cost dental solutions, as evidenced by the majority paying less than 500 rupees for faulty dentures, underscores the intricate relationship between economic factors and healthcare choices. Mitigating these financial barriers requires comprehensive strategies that go beyond mere affordability to ensure the provision of quality dental

care accessible to all. Lastly, the research underscores the challenge of limited access to professional dental care, prompting individuals to turn to quacks. Whether rooted in geographical barriers, a shortage of qualified practitioners, or other access challenges, this issue necessitates systemic improvements to ensure equitable access to quality dental services. In addressing these multifaceted challenges, it becomes evident that any comprehensive solution must encompass education, financial support, and enhanced accessibility to elevate the standard of dental care and mitigate the reliance on unqualified practitioners¹⁶. The study unmistakably brings to light a concerning issue of widespread unawareness within the participant cohort, as evidenced by the staggering percentages: 78.2% lacking awareness of dentists and a significant 90.7% being unaware of the various specialties in dentistry. Remarkably, none of the participants scored the maximum of 4 for awareness, emphasizing a critical deficit in knowledge about dental professionals and their specialized fields. Interestingly, a correlation between increased awareness scores and a decrease in observed clinical findings is noted. This correlation suggests that individuals with higher awareness scores may seek dental care earlier, potentially mitigating the severity of clinical issues. This observation underscores the importance of timely awareness in influencing proactive healthcare-seeking behavior. The study's findings serve as a poignant call to action for the dental profession¹⁷. It highlights the profession's role as a proactive force in fostering awareness at multiple levels—individual, community, national, and global. By actively engaging in awareness campaigns and educational initiatives, the dental profession can contribute significantly to reducing the prevalence of unawareness and its associated impact on oral health. This proactive stance is crucial for improving early intervention, minimizing clinical complications, and promoting overall dental well-being within the broader population. To address the pervasive issue of unawareness and promote oral health, a multi-pronged approach involving social interventions is imperative. At the individual level, school-based interventions and social marketing campaigns can be instrumental in improving awareness. Integrating oral health education into school curricula and leveraging social media platforms for targeted awareness campaigns can effectively reach and educate individuals^{18,19}. At the community level, collaboration between Primary Health Centers (PHCs) and Accredited Social Health Activist (ASHA) workers is essential. These community health workers can play a pivotal role in disseminating information, conducting workshops, and facilitating discussions on oral health practices. The village head, acting as a local leader, can coordinate efforts to spread awareness within the community. In line with the recommendations of Hans et al., organizing role plays in local languages becomes a powerful tool for educating rural

populations about the consequences of quackery. This interactive and culturally tailored approach can enhance understanding and retention of crucial information. Non-governmental organizations (NGOs) have a significant role to play in raising awareness across diverse sections of society. Collaborating with these organizations can amplify the reach of awareness initiatives and ensure that educational efforts are inclusive and accessible. International bodies such as the World Health Organization (WHO) and UNESCO can contribute by providing support and resources for comprehensive awareness campaigns. Their involvement can lend credibility and global reach to initiatives aimed at eradicating oral health unawareness. In essence, a concerted effort involving local, national, and international stakeholders is crucial to leaving no stone unturned in the quest to enhance awareness about oral health and combat the consequences of quackery. Through collaborative and culturally sensitive approaches, these interventions can contribute to building a more informed and health-conscious society. In addition to social interventions, the integration of dental insurance into government schemes is paramount for ensuring widespread access to dental treatment. The inclusion of dental insurance in government initiatives can make dental care more financially feasible for the masses, facilitating optimal treatment. Moreover, it serves as a powerful tool for fostering oral health awareness at the grassroots level. Dental insurance has the potential to act as a catalyst, incentivizing regular dental check-ups as an effective preventive measure. By providing coverage for routine dental visits, it encourages individuals to prioritize their oral health, leading to early detection and prevention of dental issues. The dental profession holds the responsibility of advocating for the integration of beneficial insurance schemes into policymaking. By actively engaging with policymakers, the profession can underscore the long-term benefits of dental insurance in promoting the longevity of teeth. This collaborative effort between the dental profession and policymakers can contribute significantly to spreading awareness about the importance of oral health across society, ultimately leading to improved overall well-being.

CONCLUSION

The findings from this study prompt a compelling call to action among dental health professionals to intensify efforts in raising oral health awareness, particularly targeting diverse populations in various regions where individuals continue to seek care from unqualified practitioners or "quacks." Despite the Dentist Act of 1948 mandating licenses for dentists, dental mechanics, and dental hygienists, the persistence of street dentistry highlights a gap in enforcement, allowing unauthorized practitioners to continue their operations. This scenario emphasizes the need for a concerted effort to strengthen awareness campaigns, particularly tailored to the

specific needs and challenges faced by different sample populations in various areas. The goal is to empower individuals with the knowledge to make informed decisions about their oral health and to dissuade them from seeking care from unlicensed practitioners. Furthermore, the study underscores the imperative for a more robust enforcement of existing laws, mirroring the legislative frameworks in many developed countries that actively prevent the unlicensed practice of dentistry. Advocacy for stricter enforcement, coupled with comprehensive educational initiatives, can play a pivotal role in curbing the prevalence of quackery and promoting the importance of seeking professional dental care. This dual approach is crucial for ensuring the well-being of individuals in diverse communities and upholding the standards set by regulatory bodies.

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