

**A Pull back to dentistry: Case report with Review and Possible Hindrance Prospects**

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**Abstract**

Dentistry has come a long way in the last century and a half, to the point where it is ranked as one of the most respected professions. With nearly 300 dental colleges existing in our country producing over 25,000 dentists each year, By looking at the past, analyzing strategies that are currently working and planning for the future, we, as dental professionals, should strive for a healthier generation of Indians. In spite of the hardship of under graduation and post-graduation, dental professionals were forced to unhealthy competition from unqualified dental quacks. It is incumbent upon dentists everywhere to protect the hard-earned reputation by weeding out quacks from among them. Following is the case report of two women who become victims of dental quackery.

**Keywords:** Dental quacks, Dentistry, Dental health, Oral health awareness

**Introduction**

Dental practice is very sensitive and specific. It consists of many skilled techniques like framing and execution of treatment plan. Patients should have the utmost belief in the practitioner for the success of treatment. Skill of a dentist plays a vital role in the entire procedure. Dental practices should be executed by a certified practitioner only. Unfortunately due to a deficit of dental awareness, patients were approaching dental quacks for treatment purposes.

'Quack' is the German word for mercury (quack salber) that has a meaning 'hawker of salve'. It was first used in the 15th century. A quack is 'an unqualified person who

claims to have medical knowledge falsely.<sup>[1]</sup> Their working platforms can be footpaths to well-organized setups, but mostly accessible to their target group of people i.e low economic scale and people from rural areas. They were not qualified or certified to deliver quality dental service. Most of them claim that they learned from the art of dentistry through families or from a qualified practitioner by working as their assistant for a longer period, which is not legally acceptable.<sup>[2]</sup>

Self-regulation of dentistry in Trinidad and Tobago came into being by an Act of Parliament in 1980, with the formation of the Dental Council. The illegal practice of dentistry is mentioned under Section 31 of the Act: "person not being a dentist or dental auxiliary who practices dentistry whether for reward or not is guilty of an offense and liable on summary conviction to a fine of one thousand dollars or imprisonment for one year or both".<sup>[3]</sup>

In India, under Chapter V, Section 49 of the Dentist Act of 1948 requires dentists, dental mechanics, and dental hygienists to be licensed. These quacks can be penalized under The Dentist Act leading to imprisonment & penalty but stricter laws need to be reinforced and implemented.<sup>[4]</sup>

In spite of various laws dental quackery was spreading its wings under the shadow of a deficit of dental awareness. Here we present two cases who became victims of dental quackery.

#### **Case 1**

A 48 years female patient came with a chief complaint of an ill-fitting artificial tooth set in the lower left back tooth region for 6 months. She had given a history of fixation of fixed artificial teeth set 2 years back by a local practitioner in the local town area. Practitioner had removed teeth in the particular region due to decayed teeth. The Tooth set which was fixed was good, but after 8 months, it became loose and patient, having problems

chewing and talking. So, she reported to our organization for a new denture. Her medical and family history were non-contributory. On extraoral examination, the face is grossly symmetrical.

On intra-oral examination, a fixed partial denture of 13 to 22 was noticed with the improper finish. A removable prosthesis was noticed in lower denture that appeared to be fabricated faulty with clasps around 37 tooth and c clasp around 44 and 47. Teeth present were 14,15,23,24,25,27,32,33,37,44,47. On trying to remove prosthesis in the mandible, even on applying minute pressure, the denture was elevated, along with 37 tooth. 37 was entangled in clasp and was avulsed along with denture. The entire denture borders are covered by calculus on the lingual aspect. (fig 1,2,3)

Removable prosthesis was fabricated with clasp around abutment tooth that hampered patient to remove denture for which oral hygiene was drastically affected that in-turn lead to lodgement of huge amounts of calculus along borders of both maxillary and mandibular dentures. This condition led to gingivitis leading to Periodontitis. There is a solitary ulcer on the floor of the tongue along the borders of denture which is oval in shape approximately 1x1 cm<sup>2</sup> in size, with elevated margins. On palpation, it was non tender with no secondary changes.(fig 4)

Ortho-pantamograph was taken, depicting the generalized decrease in bone level suggesting generalized periodontitis. OPG revealed partially edentulous in 16,17,26,27,31,34,35,36,37,41,42,44,46. Furcation involvement is seen in 47. (fig 5)

#### **Case 2**

A 40 years female patient came with complaints of loosened dentures which were fixed 3 years back. Her medical and family history were non-contributory. On intraoral examination, removable prosthesis for missing teeth of 31&32 was present. It was made up of self-cure

acrylic including the lingual aspect of abutment tooth 41, 42. It was ill fitting and when I tried to remove the denture, 33 tooth was avulsed along with the denture. (fig 6,7,8)

Both patients were counselled about maltreatment given to them, side effects of those fabricated dentures, hazards of visiting dental quacks, Patients agreed for full mouth rehabilitation and were referred to the Department of Periodontics and Prosthodontics for treatment plan.

### Discussion

Quackery can be threatening in many aspects because of the treatment itself or because of the failure, leading to other postoperative complications. A large number of people visiting these quacks seek treatment only in terminal stages like pain; they have a restricted budget and are not very quality conscious.

The most common cause of quackery is the lack of awareness of oral hygiene in rural areas. Despite having more than 300 dental colleges and dentists to population ratio of 1:8,018.<sup>[5]</sup> There is a massive shortage of trained dental professionals especially in rural areas due to mismatch in the distribution of manpower. The dentist to population ratio is high (1: 10,000) in an urban area, whereas it is low (1:25,000) in rural area<sup>[6]</sup> which has led the dental quacks to have flourishing business especially in rural & semi-urban areas. Repeated dental appointments Illiteracy, lack of awareness, poor accessibility to dental clinics are some of the reasons for which most patients depend on these quacks.<sup>[1]</sup> Reduced treatment time and low cost draw the population to these quacks for treatment.

Dental diseases are inarguably one of the most prevalent diseases in our community, yet have been neglected for long by the general population. However, since the past, two to three decades with increased awareness, literacy, emphasis on aesthetics, advanced and sophisticated dental

treatment, equipment, and economic development have led to complete turn-around in the field of dentistry in India.<sup>[1]</sup> On the other hand, the rising need for dental treatment has led to the flourishing of street dentistry. Matter of fact, these quacks are those attendees who have observed and self-learned a few techniques of dentistry either by assisting dental surgeons or inherited it from their families and adopted it as a profession.

There are numerous reasons for the implementation of the quacks in the society such as<sup>[4,5]</sup>

- When trained and competent practitioners are in short supply
- When their charges appear prohibitive to a segment of the population
- Absence of the basic primary health-care approach in dentistry
- Lack of awareness and knowledge among the common man regarding who is a dentist and who is not.
- Poor patient: dentist ratio in the population.

These street dentists are known to perform procedures like extractions, filling of teeth, making fixed and partial dentures, etc. They are often also known to make use of self-cure acrylic directly intra-orally to fix the teeth over gums which cause a severe burning sensation and are known to have carcinogenic potential as well.<sup>[2]</sup>

This is because the acrylic contains Methyl methacrylate (MMA), a widely used monomer in dentistry and medicine which has been reported to cause abnormalities or lesions in several organs. Many clinical studies have concluded that monomers cause a wide range of adverse health effects such as irritation to skin, eyes, and mucous membranes, allergic dermatitis, stomatitis, asthma, neuropathy, disturbances of the central nervous system, liver toxicity, and fertility disturbances.<sup>[7]</sup>

They are also seen to fix the teeth suspended in stainless steel wire which they tie around adjacent teeth to support

the denture. This leads to the formation of untoward and excessive forces that act on the periodontium causing more harm to the adjacent teeth as well.

### **Literature-based evidence for hazardous dental quacks**

Pramod Krishna et al. reported a case of oro-facial space infection in an old diabetic patient resulted due to a faulty prosthesis given by a quack practicing as a dentist. Chronic trauma to mucosa led to the cellulitis involving submandibular, sublingual, and pterygomandibular spaces.<sup>[8]</sup> Arigbede and Adesuwa reported a rare case of pulp necrosis of mandibular and maxillary central incisors, in an attempt to modify the teeth structures to create midline diastema by a quack.<sup>[9]</sup> Chauhan et al. reported the case of a male patient who got a fixed partial denture from a quack. On examination, it was found that the quack had fabricated the denture with the adjacent natural tooth with the help of self-cure acrylic.<sup>[10]</sup>

Chal akka et al. in their article reported a case of children who had undergone dental treatment abuse by a quack. The healthy anterior tooth of the children was capped with metal crowns to treat the proclination of the maxillary permanent incisors.<sup>[11]</sup> Chaudhary et al. reported a patient with severe pain and abrasion of a tooth. On examination, it was found that abrasion and pulp exposure was due to 57% Hydrogen peroxide given by a quack to eliminate stains on the tooth.<sup>[12]</sup> Naidu et al. in their study to explore reasons to consult dental quacks and treatment satisfaction. 67% participants reported that they visit a dental quack for treatment. Reasons found for visiting quacks were elderly people visited more to quack, lower socioeconomic conditions, and living in an area with less government-run dental clinics. Toothache (74%) and extractions (61%) were the most collective reasons found for visiting a quack.<sup>[1]</sup>

### **What Can Be Done**

The World Health Organization claimed to have Dental Auxiliaries like dental aid, dental licentiate, and frontier auxiliaries with little training to work in rural remote areas.<sup>[13,14]</sup> Till the Government intervenes, takes them into the health system and provides a stable means of income, there are more chances that the quacks may thrive to earn money by practicing quackery.<sup>[13]</sup> The best fight against quackery can be done with proper understanding of how scientific knowledge is developed and verified. Dental education should include instruction on the scientific method and the detection of quackery.<sup>[1,13]</sup>

- Oral health awareness through mass media and educating the population about the ill effects of quackery
- Strict laws to be made by the government and dental council to eliminate the unethical practice.
- Posting of dental surgeons at peripheral and community health-care centers for easy and making dental health more realistically accessible to the poor and needy rural population
- Dental health insurance coverage to the population at a very affordable price
- Dental health also should be included in national health policy.
- The Government and dental council should put forward a strong policy to culminate this unethical practice of harming the population
- The government should provide /increase jobs for qualified dental professionals along with required incentives to encourage them to work in remote areas.

### **Conclusion**

Dentistry faces serious problems regarding the accessibility of its services to all in India. The major missing link is the absence of a primary health care

approach. Reports advocate that there are about additional than one million unqualified dental health-care providers or 'quacks', in India. They have long been accused of misdiagnosing and maltreatments. Highly contagious diseases like HIV, Hepatitis, COVID-19 also ringing a warning bell due to quackery practice should be taken care. Likewise, a stitch in time can save nine-an action in time can save both patient and dentistry

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### Legend Figures

Figure 1, 2, 3: First patient denture

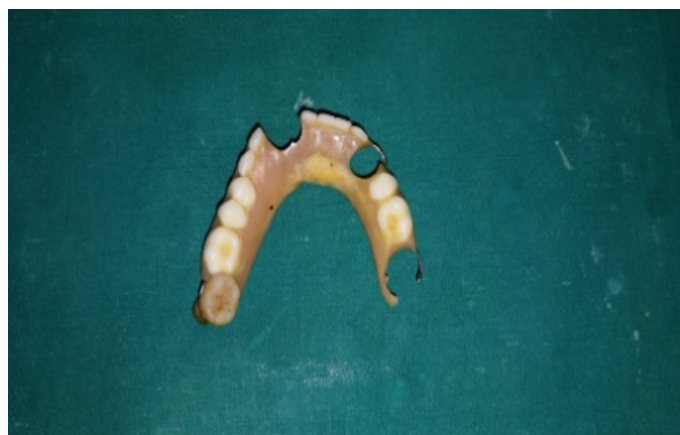


Fig 1



Fig 2



Fig 3



Fig 4



Figure 5: Orthopantomograph of first patient denture

Figure 6, 7, 8: Second Patient Denture



Fig 6



Fig 7



Fig 8