



Time to tackle curse of dental quackery - A powerhouse of contagious outbreaks during COVID-19 pandemic - A Review

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Abstract

The aim of writing this article is to raise awareness about unfortunate flourishing of dental quackery in developing countries like India and preventing spread of COVID-19 infection during current pandemic. Dental quackery can be described as perpetrating like a dental practitioner to provide dental healthcare based on previous clinical attempts and this mockery imparts unethical dental care to patients subsequently results in complications. Many quacks work in poor and unhygienic conditions by practicing on roadside as denturists and making money by fixing artificial teeth or extracted teeth as such on edentulous sites; resulting in spreading of diseases like HIV/AIDS, Hepatitis (B and C) through cross-infection but now-a-days outbreak of coronavirus is of major concern. A novel coronavirus (COVID-19) is associated with human to human transmission and was recently identified in saliva of infected patients. The high price of dental treatment, repeated dental appointments, poor accessibility to dental clinics, illiteracy, and lack of awareness about certified dentists are the reasons for thriving of quackery in dentistry in developing countries. It is thus a challenge to the dental practitioners to not only fight against this fraudulent of dental quackery but also to educate and convince the patients to distinguish between the quacks and dentists, so that they get guided to take the right treatment and also to protect hard-earned reputation of dental professionals by weeding out quacks. It can be concluded that public education and awareness coupled with support of health-care governing bodies can promise a safe and healthy future by tackling quackery.

Keywords: COVID-19, Coronavirus, Infection Control, Dental Quackery, Quacks, Dentistry.

INTRODUCTION

The stigma of dental quacks in dental health care is prevalent in India since many decades not only in rural areas but also in urban crowds as many poor people who cannot afford for certified dental surgeons prefer to go to unregistered cheap dental practitioners. Before the 20th century, dentistry was largely unregulated. In Europe during the Middle age it was often practiced by monks, barbers, blacksmiths, etc. In current epoch of the 21st century when nano dentistry, computer-aided design manufacturing, lasers, rotary endodontics, and zygomatic implants have innovated into modern dentistry; there is huge number of mass who still prefer to visit an unqualified practitioner/quack for their ailments.^[1,2] It's true that during the present outbreak of COVID-19 infection, dental treatment price will definitely hike because of the requirement of more additional sterilization protocols, so greater chances of poor/ middle class people to visit quacks for cheap treatment.

'Quack' is the German phrase for mercury (quacksalver) actually meaning 'hawker of salve'. It changed into first utilized in fifteenth century.^[3,4] Quackery has been described as, "the fraudulent misrepresentation of 1's capacity and revel in withinside the analysis and remedy of sickness or of the consequences to be executed via way of means of the

remedy offered.” Street dentistry, a shape of quackery wherein dental quacks frequently go to villages on their bicycle with a bag containing a few pliers, screwdrivers, dividers, self-treatment acrylic substances to offer dental fitness care at affected person’s home. The places of work for those dental quacks variety from footpaths to well-supplied set-ups.^[4-7] Quackery in dentistry may be synonymously referred to as many phrases like “unconventional dentistry”, “holistic dentistry” or “biologic dentistry”. It is likewise the exercise of useless medicinal drug that is unproven and is typically desired a good way to make cash or to hold a role of power. Random House Dictionary describes a Quack as a fraudulent or ignorant pretender of clinical ability or someone who pretends, professionally or publicly, to have the ability, know-how and/or qualifications which she or he does now no longer possess; a charlatan.^[4,5]

Various factors contributing to the prevalence of quackery in dentistry include increase in competition, higher costs for education and for opening a dental clinic, diminished dental education in the methods of science, high cost of treatment, failure of organized dentistry to develop guidelines and policies for combating quackery. Since, quacks guarantee their patients painless and immediate treatment, rural people opt to go for such treatments with immense faith in unqualified dental quacks. The problem also arises when these quacks display on their boards “RIMP”, which stands for “Registered Indian Medical Practitioner” when in reality there is no such degree. This makes them appear real to the common man.^[8,9]

India has been witnessing a sharp escalation in the number of quacks who have been creating a menace by the means of their illegitimate practice, especially in rural areas. Parts of Uttar Pradesh, Bihar, Haryana, Karnataka and Tamil Nadu are mostly affected by the presence of street dentistry. These itinerants open roadside clinics and perform procedures on pavements amidst a highly pathogenic environment.^[5,8,9]

COMMON PROCEDURES DONE BY DENTAL QUACKS IN INDIA

In comparison to prosthodontic dentistry, procedures done by quacks include fixing/ fitting of acrylic dentures directly upon edentulous sites with commercial glues or suction discs as they lack proper retention and stability ; splinting of single tooth crowns with self-curing acrylic on adjacent teeth; standard premade complete dentures to every patient; extracted tooth trimmed and fixed back into the socket with self-cure acrylic or usage of unsuitable and incompatible wires in oral cavity to stabilize teeth or dentures. Furthermore, unlike oral pathologists, some quacks run laboratories without license and lack of knowledge can risk lives by giving false reports / diagnosis of hematology or histopathology. However, some also try to give orthodontic treatment by using incompatible wires and lack of knowledge about proper force results in permanent loosening of teeth which finally exfoliates at early age. Even these quacks do not prescribe post treatment retainers, instead try to use fixed unsuitable wire. In addition to above activities by quacks; another most common is the extraction of carious first molars in children resulting in loss of space and crowding in permanent dentition. Flap surgeries without following norms of plaque control can lead to loss of attachment. This mockery practice is quite harmful when try to mimic certified conservative and endodontics dentists by filling of adjacent class II cavities as a single one or using self-cure acrylic as a restorative material for cavities and also incomplete cleaning and shaping of canals during root canal treatments (RCT) lead to periapical lesions/pathologies.^[8-12]

HOW DO THEY KNOW WHAT TO DO?

These quacks either learn from their ancestors/parents or observe the certified dental surgeons working in the dental clinic as they work as assistants under them. They are able to acquire a meager knowledge by simple observation of the dental procedures without scientific knowledge and then start their own practice in the rural areas at a low cost without using any technology and modalities. Sterilization of the instruments being used and the technical application of those instruments intra orally is of least concern to them. For instance, in current scenario of COVID-19 pandemic; they lack knowledge about coronavirus route of transmission, pathology, symptoms etc. and will not follow proper guidelines to prevent its spread, hence these quacks will be the most common mode of spread of COVID-19 infection amongst community.^[5,13-15]

COMPLICATIONS CAUSED BY DENTAL QUACKS

Dentistry entails bodily processes with inherent dangers of headaches. Somewhere the state of affairs or dentists are accountable for it. In mild of this fact, quackery may be dangerous physically, psychologically, emotionally and financially due to the remedy itself or due to the failure to get the remedy that is probably helpful, or due to the consequent confusion.^[14,15]

The diverse unwarranted dental remedies through quacks can bring about bone loss, adjoining enamel loss, infections, allergic reactions, traumatic/painful lesions and septicemia. Untrained placement of suction tool reasons erosion of the palatal mucosa. In addition; different foremost headaches that rise up from processes performed through those untrained unethical employees are oral cancer (polymethylmethacrylate withinside the self-therapy acrylic plate incorporates excessive carcinogenic capacity whilst in touch with tender tissues for over an extended length of time), area infections

or even dying because of big infections. An acrylic consists of Methyl methacrylate (MMA), a extensively used monomer in dentistry and medicinal drug that has been said to motive abnormalities or lesions in numerous organs. Experimental and scientific research have documented that monomers can also additionally motive a huge variety of destructive fitness consequences along with infection to skin, eyes, and mucous membranes, allergic dermatitis, stomatitis, asthma, neuropathy, disturbances of the primary worried system, liver toxicity, and fertility disturbances. Furthermore, immoderate use of neighborhood anesthesia can also additionally motive LA toxicity.^[5-6,16-18]

Moreover, utilization of unsterilized devices also can function a likely portal of transmission of blood borne illnesses like Hepatitis B, C, and HIV/AIDS however now a days throughout length of COVID-19 pandemic, switch of coronavirus is of foremost concern. It is now believed that its interpersonal transmission (droplets whilst talking, sneezing, coughing or direct touch with mucous membrane) happens especially among own circle of relatives members, such as household and buddies who in detail contacted with sufferers or incubation carriers. The position of dental experts in stopping the transmission of COVID-19 is seriously essential as they continuously are available touch with oral fluids and this coronavirus (SARS-CoV-2) is amply found in nasopharyngeal and salivary secretions of affected sufferers, and its unfold is predominantly notion to be breathing droplet /touch with saliva.¹⁸⁻²¹ Usage of unsterilized syringes may additionally result in unintentional transfusion of blood that could result in sure emergencies or maybe dying of an individual.^[4,9,11,12]

A survey carried out through IMA (Indian Medical Association) indicates that the quantity of quacks in our u . s . a . exceeds the quantity of licensed dentists. Even if one quack reasons the dying of 1 affected person in 12 months because of incorrect analysis and remedy, almost 2.7 million silent murders take location throughout the u . s . a . . Quacks have been administering excessive doses of medicine with out a know-how approximately them and have been greater lively throughout epidemic/ pandemic outbreaks.^[4,9]

Last however now no longer the least, those quacks in general prescribe unlabeled, non-standardized and open medicines withinside the shape of powders, posing diverse fitness hazards. Common chemical substances used to put together those powders ranged from sildenafil, testosterones, betamethasone, theophylline and amphetamines to opioids. Hence it's far the want of the hour to address this threat on the earliest, which may be achieved simplest through the collaboration of the diverse authorities our bodies and authorized dental experts unfold at some stage in the nation^[4,11]

ANTI QUACKERY LAWS

In India, under Chapter V, Section 49 of the Dentist Act of 1948 requires dentists, dental mechanics, and dental hygienists to be licensed. These street doctors can be penalized under the Dentist Act leading to imprisonment & penalty but strict laws need to be reinforced and implemented.^[4]

Dr. Girish Tyagi, President, DMA said that it is pertinent to mention here that in Delhi about 30000 quacks are playing with the lives of innocent civilians even during this difficult time of pandemic of COVID- 19 without any fear of law. They are also not registered with the DPCC for Biomedical Waste Management. Earlier also a list of quacks has been sent to DPCC for taking action but no action has been taken against them for violations of DPCC Act.^(The Tribune; May 2020)

HOW TO TACKLE DENTAL QUACKERY?

Most of the people trust that dental quackery is simple to spot. Often it's far not. In the sector of dentistry, it's far crucial to research the diverse topics related to quackery. Although avenue dentists may be legally educated with minor first-resource tactics or others below the supervision of licensed dentists, nonetheless there might be possibilities of headaches and those topics need to accept a extreme thought.^[2-4]

The World Health Organization (WHO) shows of getting New Dental Auxiliaries like dental resource, dental licentiate, and frontier auxiliaries with little education to paintings in rural far off regions. Until the Government intervenes, takes them into the fitness system, and affords a strong approach of income, there are extra possibilities that the quacks can also additionally thrive to earn cash with the aid of using practising quackery. The first-class protection towards quackery is an knowledge of the way clinical know-how is advanced and verified. Dental schooling need to consist of guidance at the clinical approach and the detection of quackery.^[2-4]

The different approaches of growing the wide variety of licensed dentists in rural regions to provide fine remedy to all sufferers consist of; The Government need to urge clean graduates to exercise in rural regions and offer extra incentives to them. The public fitness dentists need to take the initiative of adopting extra network orientated oral fitness applications to boom the notice amongst rural population. Dental schools have to have peripheral facilities withinside the rural regions or even undertake a few villages or PHCs wherein they could go to frequently to offer care to the needy and

teach rural masses. A obligatory rural posting of round 3 to 6 months for the interns might honestly gain tens of thousands and thousands of disadvantaged humans in rural regions.^[2-4]

MEASURES TO BE UNDERTAKEN

Since dental quackery damages both the patient's trust and dentist's reputation, specific actions need to be taken by the dental professionals and various government authorities. It ought to be the responsibility of the qualified dentist to encourage a broad understanding of risk of such practice along with promotion of quality care and create awareness of benefits of good oral care. Respective dental associations, social media such as newspapers, local televisions channels, and the ever-rising use of smartphones even among the backward socioeconomical classes can be used as a positive tool to propagate messages regarding the need for dental treatment and raise dental awareness among the uneducated. All these should include awareness about drawbacks and various life-threatening emergencies associated with lack of knowledge in quackery. In addition to dentist, certain other health regulatory authorities and government bodies need to work together to identify and eradicate these culprits from our societies as these issues lead to unexpected serious health problems and cross infections. In current pandemic situation of COVID-19; proper knowledge of guidelines by medical association must and should be followed by every dentist to prevent its further spread. Following activities should be beneficial^[4,11,12]:

1. Improvisation of infrastructure and sanctioning of funds in government hospitals (like large spaces to maintain social distance and provide proper quality treatment to poor people).
2. Mobilization of qualified doctors to rural areas (leads to easy accessibility of certified dentists in remote areas so that these individuals avoid to visit to quacks)
3. Constant surveillance
4. Stringent anti quackery laws
5. Government should bear finances of PPE (Personal protective equipment) kit, gloves and masks especially for poor/ middle class family.
6. Dental insurance

CONCLUSION

In current epoch, in spite of an boom withinside the range of licensed dental surgeons in growing countries, the depend of dental quacks practising dental care has additionally been at the rise, specifically withinside the rural areas. Therefore, it have to be the obligation of each dental medical professional to guard the recognition of our prestigious career being tarnished via way of means of the unqualified unauthorized dental quacks and to guard the oral fitness and well-being of sufferers specifically in modern-day duration of COVID-19 pandemic. An pressing want to cope with this thriving problem isn't always best that it hampers the work, livelihood, and credentials of the dentist however can also significantly have an effect on the fitness of the affected person because of their nescience and unethical way of exercise. The destiny of quackery relies upon on how deep and sturdy is the symbiosis of quacks and licensed dentists. The quicker that symbiosis is damaged and the earlier rational care may be made universally available, the earlier quackery could recede. The Government of India (GOI) and the DCI have to recommend a sturdy coverage or formulate hard legal guidelines to culminate this unethical exercise of harming the population. Moreover, in India, Chapter V, Section forty nine of the Dentist Act of 1948 calls for dentists, dental mechanics, and dental hygienists to be certified however nevertheless extra quacks are practising.

REFERENCES

1. Ring, M. E. (1998). Quackery in dentistry. Past and present. *Journal of the California Dental Association*, 26(11), 818-826.
2. Bennadi, D., & Konekeri, V. (2015). Quackery in dentistry. *Research Journal Of Pharmaceutical Biological And Chemical Sciences*, 6(2), 504-509.
3. Tomar, S. L., & Cohen, L. K. (2010). Attributes of an ideal oral health care system. *Journal of public health dentistry*, 70, S6-S14.
4. Oberoi, S. S., & Oberoi, A. (2015). Growing quackery in dentistry: An Indian perspective. *Indian Journal of Public Health*, 59(3), 210.
5. Barrett, S. (2012). My Concerns about " Holistic" and" Biological" Dentistry.
6. Trinidad Guardian: The Problem of Quackery (p8, 21st March 1987). Port of Spain: Trinidad Publishing Company Ltd, 1987.
7. Trinidad Guardian: Dental quacks are law breakers (p18, 23rd March 1987). Port of Spain: Trinidad Publishing Company Ltd, 1987.
8. Joshi, S. R., Pendyala, G., Dadpe, M., Mopagar, V., & Choudhari, S. (2014). Quakery or mockery: time to deal and change the scenario. *Pravara Medical Review*, 6(1).

9. Hans, M. K., Hans, R., & Nagpal, A. (2014). Quackery: A major loophole in dental practice in India. *Journal of clinical and diagnostic research: JCDR*, 8(2), 283.
10. Board of Regents of the American College of Dentists. (2003). The ethics of quackery and fraud in dentistry: a position paper. *The Journal of the American College of Dentists*, 70(3), 6-8.
11. Chambers, D. W. (2003). Quackery and fraud: understanding the ethical issues and responding. *JOURNAL-AMERICAN COLLEGE OF DENTISTS*, 70(3), 9-17.
12. Sandesh, N., & Mohapatra, A. K. (2009). Street dentistry: Time to tackle quackery. *Indian Journal of Dental Research*, 20(1), 1.
13. Eskinazi, D. P. (1998). Factors that shape alternative medicine. *Jama*, 280(18), 1621-1623.
14. Goldstein, B. H. (2000). Unconventional dentistry: part I. Introduction. *Journal-Canadian dental association*, 66(6), 323-326.
15. Jago, J. D. (1984). Early dental charlatans and quacks. *Bulletin of the history of dentistry*, 32(2), 118-125.
16. Dunning, J. M. (1986). *Principles of dental public health*. Harvard University Press.
17. Lal, S., Paul, D., & Vashisht, B. M. (2004). National oral health care programme (NOHCP) implementation strategies. *Indian Journal of Community Medicine*, 29(1), 3.
18. Wang, C., Horby, P. W., Hayden, F. G., & Gao, G. F. (2020). A novel coronavirus outbreak of global health concern. *The lancet*, 395(10223), 470-473.
19. To, K. K. (2020). W, Tsang OT-Y, Leung W-S, et al. Temporal profiles of viral load in posterior oropharyngeal saliva samples and serum antibody responses during infection by SARS-CoV-2: an observational cohort study. *Lancet Infect Dis*, 20(5), 565-574.
20. Chan, J. F. W., Yuan, S., Kok, K. H., To, K. K. W., Chu, H., Yang, J., ... & Yuen, K. Y. (2020). A familial cluster of pneumonia associated with the 2019 novel coronavirus indicating person-to-person transmission: a study of a family cluster. *The lancet*, 395(10223), 514-523.
21. Li, Q., Guan, X., Wu, P., Wang, X., Zhou, L., Tong, Y., ... & Feng, Z. (2020). Early transmission dynamics in Wuhan, China, of novel coronavirus-infected pneumonia. *New England journal of medicine*.