ASSESSMENT OF THE ABUSED TISSUE RESPONSE IN PATIENTS WITH FAULTY PROSTHESIS MADE BY UNQUALIFIED DENTAL PRACTITIONERS (QUACKS).

Shikha Gautam, BDS¹, Shuchi Tripathi, MDS, Associate Professor*,², Deeksha Arya, MDS, Associate Professor³, Rameshwar Singhal, MDS, Associate Professor⁴, Richa Khanna, MDS, Associate Professor⁴ and Swapnil Parlaní, MDS, Professor⁵

¹Dental Practitioner, New Delhi.
²Department of Prosthodontics,
³Department of Periodontics,
⁴Department of Pedodontics,
Faculty of Dental Sciences, King George’s Medical University, Lucknow, Uttar Pradesh, India.
⁵Department of Prosthodontics, People’s Dental College, Bhopal, Madhya Pradesh.

*Corresponding Author: Shuchi Tripathi
Associate Professor, Department Of Prosthodontics, Faculty of Dental Sciences, King George’s Medical University, Lucknow, Uttar Pradesh, India.

ABSTRACT
Background and Objectives: In developing country like India, quackery, road-side dental treatment or street dentistry is a problem since decades, mostly practised in rural area. Data on the prevalence of such unethical practice of street dentistry and their harmful side effects are often neglected. Therefore, the present study was conducted to determine the abused tissue response on patients with faulty prosthesis made by “quacks” in patients reporting from rural and urban areas of Uttar Pradesh. Method: Patients with faulty prosthesis visiting the Department of Prosthodontics of the institution were included for the study. A questionnaire was prepared which included patient’s personal details, history, awareness of the patient regarding dental treatment and clinical examination before and after faulty prosthesis removal. All the data were recorded and statistically analysed using SPSS software. Results: Out of the 80 patients with faulty prosthesis, 74 (92.5%) were unaware about the qualification of the dental practitioners. More than one third of the patients were above 50 years (40%) and 55% of the population belonged to rural areas. Pain during mastication, redness with ulcerations, halitosis, mobility (bone loss) were the chief complaints of these patients. Conclusion: Within the limitation of the study it was found that majority of the patients were suffering from difficulty in mastication, poor oral hygiene, mobility of present teeth, bone loss, ulceration, swelling and caries due to faulty prosthesis. Looking at these severe consequences on patient’s oral health status, it is necessary to control these kind of mal-practices. Government policies should be made to stop these kind of malpractices.

KEYWORDS: Abused tissue response, Dentistry, Faulty Prosthesis, Quackery.

INTRODUCTION
Dental Quackery, is one of the prime challenge in dentistry seen in developing countries. Street dentistry, a form of quackery, is in practice in the rural and remote places of Uttar Pradesh region of India.¹ Majority of the population from rural areas are getting aware for their oral treatment but due to the unavailability and ignorance of proper oral health care, quackery is growing not only in rural but also in urban areas.

Quackery is a problem in dentistry since many decades, which has many harmful effects on the Patient’s quality of life.² The earliest form of dentistry involved the use of bow drills by skilled bead craftsmen to cure dental problems. It is said that the 17th-century French physician Pierre Fauchard started dentistry science as it is known today.³ Dental quackery was abundant in the 19th century in Colonial America and British colonies such as Italy.⁴ Dentistry faces serious problems regarding accessibility of its services to all. The major missing link causing this unfortunate situation in a country like India is absence of primary health care approach in dentistry.¹ Due to significant geographic imbalance in the distribution of dental colleges, a great variation in the dentist to population ratio in rural and the urban areas is seen. At present, India has one dentist for 10,000 persons in urban areas and for about 2.5 lakh persons in rural areas.⁵ Absence of basic primary health care approach in dentistry, lack of awareness, Poor patient: dentist ratio in population, insufficient number of trained and competent dentists are the major causes of such issues.⁶
practitioners are numerous reasons for the implement of the quacks in the society.\cite{1} In India, Parts of Uttar Pradesh, Bihar, Haryana and Tamil Nadu are few states notorious for street dentistry.\cite{6}

Quacks basically misguide the patients and do not provide them correct treatment alternative. Such unethical practices are posing a great threat to our society as many complications arise after such practices and patient’s oral health is hampered.\cite{7} Several biocompatibility issues have been encountered among such patients and this is only because these uneducated practitioner or quacks are totally unaware with the knowledge of life sciences.\cite{6}

Various complications have been found in patients coming to our dental institution from rural and urban areas of Uttar Pradesh, Bihar and Nepal. Primarily, review articles have been found related with complications present in oral cavity due to malpractice. The present study was therefore, planned to assess the abused tissue response in patients with faulty prosthesis made by unqualified dental practitioner (quacks).

**MATERIALS AND METHODS**

This study was conducted in the Prosthodontics Department of the Medical University. Ethical approval (Ref. code: 64th ECM II-B/P25) was taken from the University Ethical Committee and study was conducted after taking informed consent from the patients. Patients affected with abnormal Tissue response due to faulty prosthesis visiting the Department for the removal of Faulty Prosthesis were considered for the study. A self-administered questionnaire consisting of 14 questions was designed to obtain the necessary information. The questionnaire was pre-tested, revised and retested before use, which consisted of following information about the patients-

1. General questions about age, sex, address, education and annual income.
2. Their chief complaints, awareness about dentistry, treatment charges paid by them.
3. Lastly, clinical findings of these patients were recorded before and after removal of faulty prosthesis. Removal of faulty prosthesis on the first visit itself was done by special acrylic trimming burs.

Data obtained were summarized and statistical analysis using SPSS software (IBM SPSS Statistics for Windows, Version 22.0. IBM Corp, Armonk, NY) was done accordingly.

**RESULT**

A total of 80 patients were included in this study. Figure-1 relates to demographic profile of the patients. It shows that 52.5% were males, about 72.5% were illiterate or educated between primary to intermediate level, 55% patients were from rural areas and majority of patients were having low monthly income of around Rs. 5,000 to Rs. 10,000.

![Figure 1- Demographic profile of the patients.](image-url)
Figure 2 depicts patient’s distribution according to chief complaints and pain during mastication (40%) was the commonest chief complaint followed by generalised pain over the affected region.

Figure 3 shows that the number of visit to the quacks for their treatment among majority was single visit (85%). The problem with existing artificial teeth was present among 82.5% of the patients (Figure 4).

Figure 5 relates to patient’s awareness about practitioner and it was found that only 7.5% were aware about the qualification of the practitioner. Reason for visiting unqualified practitioner was also ruled out and shown in Figure 5.
Figure-6 shows the distribution of the patients according to attitude to various aspects of practices, their ability to maintain proper hygiene and satisfaction with prosthesis.

**Figure 6** - Distribution of the patients according to attitude to various aspects of practices.

Table- 1 shows the clinical findings of the patients related to faulty prosthesis after removal of prosthesis.

**Table- 1 Clinical findings of the patients related to faulty prosthesis.**

<table>
<thead>
<tr>
<th>Clinical findings*</th>
<th>No. of patients</th>
<th>Patient percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ulcer</td>
<td>52</td>
<td>65.0</td>
</tr>
<tr>
<td>Mobility (Bone Loss)</td>
<td>62</td>
<td>77.5</td>
</tr>
<tr>
<td>Redness</td>
<td>66</td>
<td>82.5</td>
</tr>
<tr>
<td>Swelling</td>
<td>48</td>
<td>60.0</td>
</tr>
<tr>
<td>Suppuration</td>
<td>6</td>
<td>7.5</td>
</tr>
<tr>
<td>Caries</td>
<td>42</td>
<td>52.5</td>
</tr>
<tr>
<td>Hyper-plastic growth</td>
<td>10</td>
<td>12.5</td>
</tr>
<tr>
<td>Foul odor</td>
<td>67</td>
<td>83.8</td>
</tr>
<tr>
<td>Pathologic tooth migration</td>
<td>34</td>
<td>42.5</td>
</tr>
</tbody>
</table>

**DISCUSSIONS**

Our findings on patients with pre-existing faulty prosthesis showed that not only the rural population (55%) but also the urban population (45%) were equally found trapped in the webs of unqualified dental practitioners or “quacks”. This was in contrast to other articles which have quoted that quackery is found mostly in rural areas.[1,8, 9]

The present study showed that lack of awareness (65%) regarding dental treatment, proximity to the quacks (62.5%) and cost (45%) were the main highlighting reasons for such kind of practices. A study done by Naidu et al showed that main reasons for using a quack were cost (53%) and availability (20%).[9] Only 7.5% of the patients were aware about the qualification of the practitioner.

It was seen that majority (75%) of the patients were more than 40 years old which clearly indicated the fact that younger were more aware with oral health. Other reason can be related to decreased cases of tooth extraction and further treatment need at younger age. Pain during mastication was the commonest chief complaint followed by pain, ulcerations and swelling. This can be due to the fact that various faulty prostheses include self-cure acrylic retained Fixed Partial Denture, Wire retained fixed partial denture, Suction discs, acrylic dentures fixed on to mucosa with commercial glues, filling of midline diastema and other gaps between the teeth with artificial teeth retained with self-cure acrylic. Such prostheses worsen the condition of supporting mucosa causing inflammation and create more spaces between the teeth and worsen the periodontal status of the adjacent abutment teeth.[10]

Result of this study showed that majority of them were unsatisfied with their prosthesis and only 12.5% were able to maintain a satisfactory oral hygiene with their faulty denture. 82.5% of patients felt such practices should be abolished. In a study done in Trinidad, it was found that 43% of respondents were dissatisfied with the treatment received from a quack and 83% felt that treatment provided by a qualified dentist was different.[11]
Clinically, intraoral examination revealed that majority of the patients had foul odour (83.8%), mobility and bone loss (77.5%), swelling (60%) and caries (52.5%). After removal of prosthesis, tissues beneath, prosthesis were observed; ulcers was noted in 65% and redness in 82.5% of patients. It has been documented that dental restorations induced periodontal changes ranging from minor gingival alterations to pocket formation with bone loss and increased tooth mobility. Heat-cured acrylcs are well tolerated by the gingival tissues but on the contrary the cold-cure acrylic resin used by the quacks resulted in gingival reactions due to allergic effects caused to dental mucosa by monomer evaporation leading to mouth soreness and burning sensation. Areas presenting with burning sensation include the palate, tongue, oral mucosa and the oropharynx. Improper designed clasps also cause damage to the abutment tooth by continuously causing excessive stress with resulting occlusal trauma. During the seating of a faulty denture, the arms of the clasp may impinge upon the marginal tissue of the abutment tooth since the denture is not supported adequately on occlusal rest. The insertion of faulty prosthesis creates potential for quantitative & qualitative changes favouring plaque formation on the remaining teeth and thereby increases risk for development of gingivitis and periodontitis. The other major complications that arise from procedures carried out by these untrained unethical personnel are oral cancer, space infections and even death due to widespread infections.

Though this study was done in very few patients, there is a need of several other such type of studies and other health programs to increase awareness regarding oral health among Indian population. Though not life threatening, these type of practices may severely affect oral tissues and patient’s quality of life. Along with increasing awareness among people, these unqualified practitioners should be penalized & strict laws need to be reinforced and implemented at government level.

CONCLUSION
Within the limitation of the study it was found that majority of the patients were suffering from difficulty in mastication, poor oral hygiene, mobility of present teeth, bone loss, ulceration, swelling and caries due to faulty prosthesis. Looking at these severe consequences it is necessary to control these kind of mal-practices. These kind of practices can be implemented by control of strict rules at Government level. Patient awareness regarding oral health education and motivation is need of present to completely eradicate these kind of practices.

ACKNOWLEDGEMENT: Institutional Research Cell, KGMU, Lucknow for supporting this study.

REFERENCES