

Original Research Article

Myths and taboos in dentistry

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ABSTRACT

Background: India, a developing country, faces many challenges in rendering health needs to its countrymen. The influence of culture is seen in every discipline of health and medical practices, and dentistry is no exception. This study was performed to investigate the existence of myths and taboos in dentistry, to assess the variation of these myths across various demographic aspects and socio-economic status, to co-relate the existence of myths with the oral health of the subject and to impart education to the people regarding abolishing the myth as that will be a hindrance towards a healthy life in patients.

Methods: The study had a cross-sectional design, used a structured questionnaire and was conducted to assess the existence of dental myths and taboos and to determine its correlation with the OHIS index of the patients. Statistical analysis software SPSS V 16.0 was used. Descriptive & inferential statistical analysis was performed on categorical and continuous data. Chi-square, independent sample T tests and ANOVA test were used to compare the distribution of caries and OHI-S between different groups. P value less than 0.05 ($p < 0.05$) was considered to be significant. Socioeconomic status was also calculated.

Results: In the present study it was found that there was almost an equal distribution of prevalence of myths in the educated as well as uneducated patients. Also the ratio of existence of myths was found higher in females as compared to males.

Conclusions: Existence of myths and taboos regarding dental health has started decreasing among the urban population due to the widespread of awareness regarding dentistry.

But still there is prevalence of some myths in the patients having primary education as compared to patients having secondary and tertiary education. If community is educated about proper prevention and cure, the myths relating dental concepts will vanish from the society and overall dental health status of the community will improve.

Keywords: Dental, Myths, Taboos

INTRODUCTION

A myth is commonly held but a false belief, a misconception, or a fictitious or imaginary understanding of a thing or a person and has no relevance with reality. Innumerable myths are associated with many things and persons all around in the world. Myths breed on human's ignorance and imagination about what he/she does not

know. Reasons for harboring a myth vary from an individual's ignorance to a society's cultural, quasi-religious, educational, and overall setup.¹

Globally, oral diseases are highly prevalent, affecting a significant proportion of world's population. This burden of oral diseases lies on disadvantaged and poor population. Among this disadvantaged population, majority of them are illiterate. Their awareness and

knowledge about importance of oral health is usually low.²

Oral health is a critical but an overlooked component of overall health and well-being among children and adults. Oral health problems, such as dental caries, periodontitis and oral cancer are global health problems. They are found in different populations belonging to developed and developing countries.³

India, a developing country faces many challenges in rendering health needs to its countrymen. A majority of Indian population resides in rural areas. Indian population consists of people from varied cultural and religious backgrounds. People believe in spiritual treatment and alternative forms of medicine, they prefer visiting a hakim (local traditional practitioner) over a doctor. All these factors influence the prevalence of myth regarding health in Indian society. Culture has its own influence on health and sickness. The influence of culture is seen in every discipline of health and medical practices, and dentistry is no exception. Society and culture, which are linked to behavioral patterns, largely influence the health outcomes of a population.⁴

Number of features namely; diet, smoking, alcohol, hygiene, stress and exercise are linked to a wide range of important diseases forming fundamental basis of common risk factor approach to prevent range of conditions including oral diseases. Among these, hygiene is most significant when it comes to prevention of oral diseases. Little is known about oral health attitude and behaviors and practices among people from developing countries.⁵

Gradually with the development of education, these taboos and beliefs are disappearing, but still they persist and are commonly encountered. The field of dentistry is no exception to these cultural beliefs. Regarding tooth and tooth ache there have been various superstitions; the popular ones are described in this study. Traditional Indian beliefs and taboos were found to correlate inversely with preventive dental health behavior in the population.⁶

There are many dental myths, some are child related, some of them adult related and the rest superstitious. In order to identify and resolve some of these myths, this study was conducted.

Objectives

- To know the existing myths about dentistry among population.
- To assess the variation of these myths across various demographic aspects and socio-economic status.
- To co-relate the existence of myths with the oral health of the subject.
- To impart education to the people regarding abolishing the myth as that will be a hindrance towards a healthy life.

METHODS

This study was conducted with approval from Institutional Ethics Committee of Government Dental College and Hospital, Nagpur. Informed consent was obtained from the subjects prior to conducting any interviews or examinations. Participation in this study was entirely voluntary and the participants were allowed to withdraw from the study at any time if they wished to do so.

Questionnaire based survey was conducted at Government Dental College, Nagpur in the Conservative Dentistry and Endodontics Department during the period of May 2016 - June 2016. A total of 250 patients were included in study. A pilot study was conducted on 100 patients in which it was found that there is prevalence of myths in 20% of patients. The power of study was 80% & alpha curve plus 5% sample size was taken.

Inclusion criteria

- Patients in the age group of 18-65 years attending the OPD of Conservative Dentistry and Endodontics at GDCH Nagpur, Maharashtra, India
- Patients who agreed to sign the consent form

Exclusion criteria

- Patients who refused to sign consent form
- Patients suffering from major disease

Clinical examination

All clinical assessment was done in accordance with the WHO guidelines. Clinical hygiene along with sterilization was taken care of. Prior to the dental examination of any subject, information like age, gender, education of the patient and occupation was recorded.

Validation of the questionnaire was done by two experts from the Department of conservative dentistry and endodontics.

Data collection and analysis

Each patient was given a questionnaire in language of their choice that is Hindi, English or Marathi consisting of 17 close ended questions. After filling the questionnaire, their OHI-S was recorded. Analysis was performed to explore the association of aspects like age, gender, and parent's education with oral hygiene.

Oral hygiene index: Simplified

For each subject, six index teeth, with one surface each, were selected to be examined for the two components of OHI-S.

Criteria for recording

- Only fully erupted permanent/primary teeth were scored.
- Natural teeth with full crown restorations and surfaces reduced in height by caries or trauma were not scored. In such cases, second or third molars along with the central incisor in anterior region on the opposite side of the midline were scored.

The OHI-S score for an individual consists of debris index (DI-S) and calculus index (CI-S). The values for DI-S and CI-S may range from 0 to 3. The OHI-S value ranges from 0 to 6 indicating the oral hygiene status:

0.0-1.2: Good; 1.3-3.0: Fair; 3.1-6.0: Poor

RESULTS

The present study was a cross-sectional design, using structured questionnaire; the study was conducted to assess the existence of dental myths and taboos and to determine its correlation with the OHIS index of the patients.

Statistical analysis software SPSS V 16.0 was used. Descriptive & inferential statistical analysis was performed on categorical and continuous data. Chi-square, independent sample T tests and ANOVA test were used to compare the distribution of caries and OHI-S between different groups. P value less than 0.05 (p<0.05) was considered to be significant. Socioeconomic status was also calculated.

Total 250 subjects were included. Out of which 105 were males and 145 were females. The mean age of the total subjects was 32.75. 10.8% subjects had primary education, 54.4% (136) had secondary education while 34.8% had higher education. 69 subjects were professional workers, 53 were intermediate, 60 each were partly skilled and unskilled while only 8 were skilled.

Based on the above parameters following figures were prepared.

This study showed that 52.4% people agreed that removal of upper teeth affects vision; 48% people agreed that scaling loosens teeth; 54.4% agreed that dental procedures are always painful; 50% agreed to the myth that brushing with powder is better than brushing with toothpaste; 47.2% patients agreed that bad breath comes only from not brushing properly; 46% agreed to the myth that no visible dental problem means no need to see a dentist; 36.4% agreed that teeth at birth are harmful to grandparents; 42% still believe that care of milk teeth should not be taken; 44.8% believe that wisdom teeth is related to human intelligence; 39.2% agreed to the taboo that teeth should be buried after extraction; 36.3% believed that in case of bleeding gums there is no need to brush your teeth; 30.8% believed that there is a need to

place any medicament/tobacco besides aching tooth when in pain.

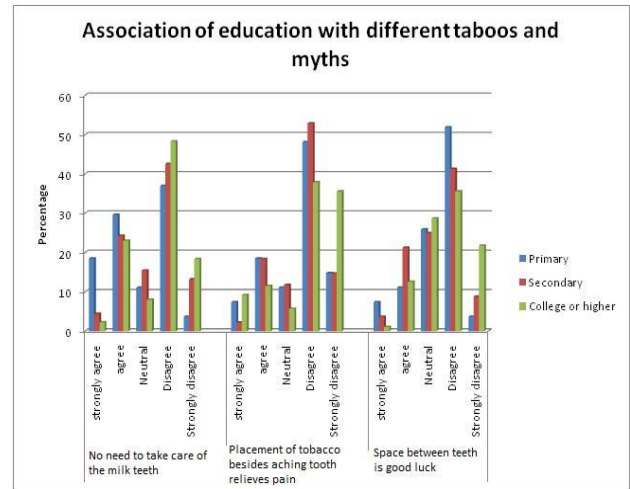


Figure 1: Association of education with different taboos and myths.

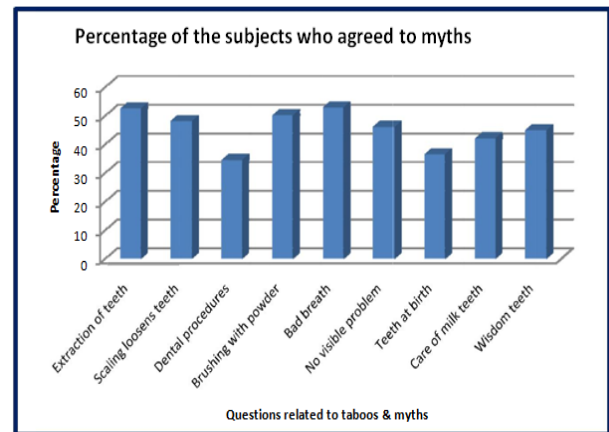


Figure 2: Percentage of the subjects who agreed to myths.

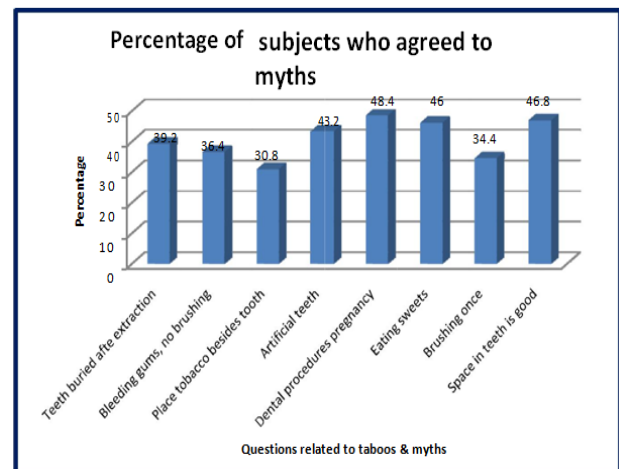


Figure 3: Questions related to taboos & myths.

43.2% are still not aware that artificial teeth set do not contain natural teeth of other person; 48.4% think that dental procedures should be avoided during pregnancy; 46% agreed that only eating sweets is harmful for teeth; 34.4% agree that brushing only once is enough for good oral hygiene; 46.8% still think that space between teeth is good luck; Majority of the subjects (55.5%) had fair oral hygiene, 38.0% had good where as 6.5% had poor oral hygiene; Significant difference according to education was found in no need to take care of milk teeth as they will be replaced by permanent teeth, placement of medicament /tobacco besides aching tooth releases pain and space between teeth is good luck

No significant difference was in OHIS index; 48.1% patients having primary education agree to the myth that there is no need to take care of the milk teeth as they will be replaced by primary teeth whereas 55.8% participants having secondary education and 68.7% having tertiary education disagreed to the myth. 67.6% of patients having secondary education, 73.5% having tertiary education disagreed and 25.9 % having primary education still agreed that placement of medicament/tobacco besides aching tooth releases pain; 55.6% patients having primary education, 50% having secondary education and 57.4 % having tertiary education disagreed to the myth that space between teeth is good luck.

There was no significant difference found in the responses of the subjects from different grades of education.

DISCUSSION

This study was performed to investigate the existence of myths and taboos, to assess the variation of these myths across various demographic aspects and socio-economic status, to co-relate the existence of myths with the oral health of the subject and to impart education to the people regarding abolishing the myth as that will be a hindrance towards a healthy life in patients visiting Government Dental College and Hospital.

India, a developing country faces many challenges in rendering oral health needs. There is a very strong influence of the various myths on health seeking behavior in Indian population consisting of people from different cultural backgrounds. Myths are part and parcel of everyone's life. As systems are becoming more entangled and people's expectations of health-care are increasing with great flare. Understanding the myths and misconceptions about oral diseases is of prime importance in providing excellent care and health education to both patients and healthy individuals, as the high prevalence of these myths will further prevent such population from obtaining proper dental care even if it could be made available to them. In the present study it was found that there was almost an equal distribution of prevalence of myths in the educated as well as

uneducated patients. Also the ratio of existence of myths was found higher in females as compared to males.

Most of the participants 52.4% believed in the myth that extraction of upper jaw teeth affects eye vision. This is a misconception inherited due to false exaggerated information promulgated by those who had previous personal negative dental experiences. Vision is not affected in any way by undertaking treatment of the upper teeth including its extraction. This finding was in accordance with the study conducted by Khan SA et al.³ The percentage of subjects believing in this myth was 79% which was even higher in the study conducted by A Nagaraj et al.⁷ For example, extractions performed on older patients, leading to weakening of eye sight due to its vicinity in maxilla, are mere coincidental, but still remain a taboo, hence people relate to this.

Compared to the above knowledge and perceptions, it was found that 52% of people did not believe that scaling, cleaning and removal of tartar loosens the teeth. This positive finding indicated that people have started getting aware of the dental procedures due to various awareness camps in schools, colleges and rural areas. This response was not in accordance with previous study conducted by R Sharma wherein many respondents believed that professional scaling leads to loosening of the teeth.² This finding was also dissimilar with the study conducted by Ain TS where 72.7% believed in this myth.¹

In the current study it was found that the myths which were prevailing since years like dental procedures are always painful, if no visible problem is there you do not need to visit the dentist, wisdom teeth is related to human intelligence, teeth should be buried after extraction, these taboos have started declining amongst different grades of education. This is due to the increased level of awareness, information among people regarding dental health. But still there is a handful of population wherein these myths still exist.

Other positive findings of the study was that a high percentage of study population believed that brushing once is not enough for good oral hygiene and brushing with powder is not better than brushing with tooth paste. This shows that they may be aware of other available treatment options for curing tooth pain. This perception was found to be significantly associated with age and education level of the participants. The educated participants responded more positively towards the perception in question compared to un-educated participants. This was in line with the study conducted by Khan SA et al.³

In the present study, the majority of the participants disagreed that they place tobacco/medicament on the decayed tooth to get rid of pain. As we know a toothache is a dreadful thing, unfortunately, they have a nasty habit of striking in the night, thanks to changes in blood flow, and when the dentist's office is closed. Chewing on

medicament can serve to numb and clean the affected area but aren't a replacement for treatment. Though more than 50% disagreed to the myth but there were 25.9% having primary education who agreed to do this which is lower than the study done by Sharma R et al.⁸

The results of the current study in context to myth that there is no need to take care of the milk teeth as they will be replaced by the permanent teeth showed that 47.9 % of patients having primary education believe in the myth. These findings reveal that the masses are still not aware about the importance of primary/milk teeth, the importance of milk teeth should be communicated to masses as they are vital for masticatory function, aesthetics, for maintenance of space for the erupting permanent teeth, and aids in development of jaws. But still there is a majority of people who disagree with the myth showing the awareness created in the recent years.

In the present study it was found that more than 50% of people in all the three grades of education did not agree with the fact that space between the teeth is good luck. This was a positive finding that proves that the myths and taboos have started eradicating.

Highlights of the study

The ratio of people believing in myths has reduced exponentially as compared to the previous studies. The status of education and awareness about the oral health in rural and urban population is increasing and the population is moving towards a healthy mind and proper oral hygiene. People have started accepting the facts about the oral health and hygiene and the deep seated myths are no longer influencing the oral hygiene practices of the people. Increase in the conduction of Dental camps in the rural areas have benefitted people in a wide range and have helped in the removal of such myths from their minds.

Limitations

Limitations of Our Study Data reported in this study cannot be generalized to the entire Indian population since the study was conducted in urban setting. Exploration of research, to know other myths prevailing in the society is necessary. Furthermore, quantitative and qualitative research studies on a larger sample and for a longer period are essential to circumvent the limitations of the current study, and more research is needed to validate the results of this study.

CONCLUSION

Basic principles and concepts regarding oral health and hygiene of teeth should be a part of the education curriculum right from the primary classes. Dental health education campaign is needed to eradicate it from community. It is the duty of the government, managers

and healthcare providers to assess this problem and educate the people.

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Conflict of interest: None declared

Ethical approval: The study was approved by the Institutional Ethics Committee

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ANNEXURE

Questionnaire used

1. Do you believe that removal of upper teeth affects vision?
 Strongly agree Agree Neutral Disagree Strongly Disagree
2. Do you feel cleaning/scaling/removal of tartar loosens the teeth?
 Strongly agree Agree Neutral Disagree Strongly Disagree
3. Do you feel that dental procedures are always painful?
 Strongly agree Agree Neutral Disagree Strongly Disagree
4. Do you feel that brushing with Laal Dant Manjan in powder is better than toothpaste?
 Strongly agree Agree Neutral Disagree Strongly Disagree
5. Do you feel that bad breath comes only from not brushing properly?
 Strongly agree Agree Neutral Disagree Strongly Disagree
6. Do you feel that if there is no visible problem with your teeth you don't have to see a dentist?
 Strongly agree Agree Neutral Disagree Strongly Disagree
7. Do you feel that presence of teeth at birth is harmful to grandparents?
 Strongly agree Agree Neutral Disagree Strongly Disagree
8. Do you believe that milk teeth should not be taken care of as they will anyway be replaced by permanent teeth?
 Strongly agree Agree Neutral Disagree Strongly Disagree
9. Do you believe that wisdom teeth are related to human intelligence?
 Strongly agree Agree Neutral Disagree Strongly Disagree
10. Do you believe that teeth should be buried after extraction?
 Strongly agree Agree Neutral Disagree Strongly Disagree
11. Do you feel when gums bleed it is better not to brush your teeth
 Strongly agree Agree Neutral Disagree Strongly Disagree
12. Keeping any medicament /tobacco beside a painful tooth reduces the tooth pain
 Strongly agree Agree Neutral Disagree Strongly Disagree
13. Do you believe that artificial teeth set contain natural teeth of other person?
 Strongly agree Agree Neutral Disagree Strongly Disagree
14. Should all dental procedures be avoided during pregnancy?
 Strongly agree Agree Neutral Disagree Strongly Disagree
15. Do you feel that the more sweets you eat, the worse it for your teeth
 Strongly agree Agree Neutral Disagree Strongly Disagree
16. Do you think that brushing only once is enough for good oral hygiene
 Strongly agree Agree Neutral Disagree Strongly Disagree
17. Do you feel that space between front teeth is lucky for your child?
 Strongly agree Agree Neutral Disagree Strongly Disagree