Review Article

Myths related to dentistry - An overview

S. Priyanka[1], L. Leelavathi[2]*

ABSTRACT

Myths are part and parcel of everyone's life. There is an increase in the people's expectations regarding health care and it is essential to know about the prevailing myths to provide needed health care to people. Dentists usually face many myths and other untested beliefs which are passed from one generation to another. Some of these myths had a significant impact on the oral health of the population. Traditional Indian beliefs and taboos were found to be correlated inversely with preventive dental health behavior in the population. Every culture has its own beliefs, and some of which have an important influence on the incidence of disease. 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. The purpose of this review was to assess the information available in the dental literature on oral health-related myths and beliefs.

KEY WORDS: Culture, Dental beliefs, Myths, Old age, Teething

INTRODUCTION

India is a developing country, and it faces many challenges in delivering oral health needs. The majority of Indian population lives in rural areas.[1] In India, people from various cultural backgrounds survive and there is a very strong influence of the various myths on health-seeking behavior in our population. People tend to have faith in spiritual treatment and alternate forms of medicine, instead of coming to a health professional they visit a local traditional practitioner.[2]

Myths are defined as stories shared by a group of people which are a segment of their cultural identity. They have a significant effect on the life of people and their way of living including seeking treatment during illness.[2] In scientific terms, myth is referred to as extensive and unquestioned false perspective.[3]

Despite remarkable worldwide progress in the field of diagnostic, curative, and preventive health, there are people still living in isolation in natural and unpolluted surroundings far away from civilization with their traditional values, customs, beliefs, and myths intact. Cultural forces bind people and also profoundly shape their lives. Culture has its own influence on health and sickness that is greatly depicted by the values, beliefs, knowledge, and practices shared by the people. Oral health is not an exception.[4]

Research on poor health outcomes usually examines the deterrents such as high price, lack of insurance, and handiness of services; however, usually aspects of cultural concepts and practices also are urged as extra deterrents.[5]

Communities and countries with inappropriate exposure to oral health-care delivery systems are at higher risk of oral diseases when sociocultural determinants such as poor living conditions, low education, lack of traditions, beliefs, culture, and myths related to oral health are more prevalent. Myths are part and parcel of everyone's lives. However, one needs to remember that there are a number of myths which are floating around a problem related to health that includes dental health because it would lead to dangerous consequences if not followed without understanding the principle behind it. Few dental myths related to children, few to adults, and rest remain superstitious.[2]

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[1]Department of Public Health Dentistry, Saveetha Dental College, Saveetha Institute of Medical and Technical Sciences, Saveetha University, Chennai, Tamil Nadu, India, [2]Department of Public Health Dentistry, Saveetha Dental College, Saveetha Institute of Medical and Technical Sciences, Saveetha University, Chennai, Tamil Nadu, India

***Corresponding author:** L. Leelavathi, Department of Public Health Dentistry, Saveetha Dental College, Saveetha Institute of Medical and Technical Sciences, Saveetha University, 162, Poonamelle High Road, Chennai – 600 077, Tamil Nadu, India. Phone: +91-944370882. E-mail: karleela81@gmail.com

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Myths can be prevalent in a population due to a variety of reasons such as poor education, cultural beliefs, and social misconceptions. In general, myths are usually passed on from one generation to the next generation. Myths are deep seated in the society, so it is difficult to break the chain. It is important to know about these myths and misconceptions prevalent in the population as understanding them is essential to provide good care as well as health education to the people.

MYTHS RELATED TO CHILDREN

Tooth eruption (teething) is a normal physiological process defined as the process, whereby a tooth moves from its developmental position within the jaws to emerge into the oral cavity.[6] Over half of the babies are believed to have one or more problems during teething.[7]

In another study, parents completed a questionnaire inquiring about their beliefs and experiences related to teething. It was found that 24% of parents believed that teething could cause fevers higher than 38°C and 10% believed that such fever could be higher than 39°C. 81% of the parents rated infant distress during teething as mild to moderate and 14% as severe.[8]

Explanations of the relationship between teething and childhood illnesses were made without recognition of many diseases and understanding of the action of organisms causing infection. Most frequently, the nervous system was indicated as a link between tooth eruption and systemic disease. J. W. White in 1887 wrote, "The nervous perturbation occasioned by the eruption of teeth increases the susceptibility and decrease the resistive power of the child." It was believed that the difficulty experienced by an erupting tooth while it is penetrating gingival tissue affected trigeminal nerve endings. Hence, it is believed that the infants' illness and mortality are related to the teething. In 1894, Dr. M. Thrasher, writing in Dental Cosmos, stated his belief that "Sodeadly has teething become, it is believed that before the twenty deciduous teeth have fully appeared one third of the human family will die."

Recognizable change occurs in the practice of the dental profession due to increase in the understanding of the concept of diseases. In 1910, 1600 deaths in England and Wales were attributed to teething, compared with 5016 in 1839.[9]

A cross-sectional survey was conducted in a random sample of 1500 parents visiting maternity and child health care centers. The majority of the parents had false beliefs or myths regarding the signs and symptoms of teething such as fever (84.9%) and diarrhea (71.8%). Runny nose, respiratory problems, vomiting, and ear problems were reported by almost one-fourth of the parents surveyed (27.6%, 20.9%, 21.6%, and 28.2%, respectively) and so were the reporting of increased susceptibility to other diseases (29.0%).[7]

Canine gouging is a kind of infant oral mutilation which is widely practised among rural population of Africa where the primary tooth bud of the deciduous canine is enucleated. It is believed that the worms in the infest tooth buds cause life-threatening illnesses in children such as vomiting, diarrhea, and fevers. The origin of this practice is unknown but could be speculated on the fact that incising the gingiva with a lancet will help in relieving erupting tooth pain and discomfort to the patient.[10]

Some of these practices have been culturally determined. Lack of education, poverty, lack of belief in medical practice, and failure of good medical infrastructure are the main cause of superstitious beliefs. It is very easy to access local traditional healers through traditional rituals than trained dentist in a society with the high prevalence of infectious diseases such as diarrhea, tuberculosis, HIV infection, and malaria and inadequate medical supplies. It is always seen that such practices are common in the lower income group.[10]

DENTAL MYTHS AND MISCONCEPTIONS ASSOCIATED WITH OLD AGE

The common myth that found to be related with old age is "A Dry Mouth is a Normal Part of Growing Old." This myth is absolutely incorrect; studies on well-controlled populations of all ages, with measures repeated over time, reveal minimal salivary flow and composition changes in healthy adults as they grow older. Nevertheless, dry mouth is highly prevalent in advanced age, often because of disease frequently affecting older people or, more likely, medications taken to control those diseases. The seriousness of a dry mouth must not be underestimated because saliva is a key and indispensable protector of the oral cavity. When salivary flow is modified, the acidity of the mouth rises; remineralization of incipient caries is impeded; oral microbial counts climb; and taste, swallowing, speaking, chewing, and use of oral prostheses are impaired.

Another dental myth related to old age is "most old people have lost their teeth." The latest nationwide data, collected during 1998–2004, showed that about 23% of Americans age 65–74 were edentulous.[11] In old age, the loss of tooth has to be attributed toward their lack of awareness and irregular dental care.

DENTAL MYTHS AND MISCONCEPTIONS ASSOCIATED WITH FEMALES

Various myths related to dental treatment were significantly observed in females, which includes loosening of teeth due to professional cleaning and loss of vision due to upper teeth extractions. This kind of misconception is inherited due to false exaggerated information promulgated by those who had previous personal negative dental experiences.[12] This might be one of the reasons which attributed to lack of awareness, low educational levels, anxiety, apprehension, and myths about dental treatment entrenched in their minds.[13]

A total of 600 females were surveyed to assess the cultural and ritual practices and their effect on the oral cavity among rural female population of Rajasthan. Majority of the uneducated females in the study believed that worms that cause dental caries can be removed from the ears. To get stronger teeth, a belief that the lost tooth should be preserved under a stone after extraction/exfoliation was found in more than half of uneducated females and less than half of the educated females. A belief that the child will bring misfortune to the family and will become a witch when born with teeth present at birth/presence of neonatal teeth was found in nearly half of uneducated females. Most of the uneducated females and more than half of the educated females thought that there was no relationship between general body health and oral health.[14]

A cross-sectional study was conducted by Raina *et al*., 2016, among patients in the age group of 18–65 years attending the OPD, Maharashtra, India, and it was found that the existence of myths was found higher in females as compared to males.[15]

MYTHS ASSOCIATED WITH RURAL POPULATION

Ancient medicines were dominated by magical and religious beliefs, which were an integral part of ancient cultures and civilizations. Due to the lack of knowledge, the primitive man believed is known as the "supernatural theory of disease."[16] All people of rural or urban area have their own beliefs and practices concerning health and disease. This diversity equally affects oral diseases and treatments.[17]

A study was conducted by Singh *et al*. in a group of ten villages, situated in district Lucknow, Uttar Pradesh, India, among 681 subjects aged 50 years and above. The common dental myths reported in the study sample were tooth loss which is a natural outcome of aging, tobacco consumption prevents caries/periodontitis, and dental diseases are curable solely by medicines, professional dental cleaning causes loosening of teeth, and extraction of teeth leads to weakening of eye sight.[18]

A cross-sectional questionnaire study was done to ascertain the current prevalence of these cultural taboos and beliefs regarding dentistry among the patients attending the OPD of a dental college in Bhopal, and it was reported that the greater portion of rural people has cultural beliefs and taboos related to dentistry as compared to urban people.[19]

To determine the prevalence of dental myths and perceived knowledge regarding oral health-care practices and its associations with levels of education among low socioeconomic strata in Karachi, Pakistan, nearly half of the respondents believed in myth that tooth extraction affects eye vision and reflected the notion that dental procedures are always painful. Age played a considerable role, as a high percentage of older individuals in the study had beliefs in myths and pessimistic perceptions toward oral health. The geriatric population usually inherits strong cultural and traditional beliefs, which leaves a lifelong effect on their health behavior. This population may also play an influential role during the development of younger individuals.[20]

COMMONLY AVAILING MYTHS AND FACTS

The most widely believed myth was that milk teeth need not be cared because they last only for a few years, and these teeth will anyway be replaced by permanent teeth. This is not entirely true as early loss of milk teeth will interfere with chewing and affect the child's nutrition, leading to drifting of the adjacent teeth and closure of some of the space that is required for the eruption of succeeding permanent teeth. Such a loss of space will cause the permanent teeth to erupt in irregular position and result in crowding. Therefore, milk teeth need to be cared for as much as permanent teeth.[1,21]

As cut brinjals will change their color to black, some people believe that staining of the teeth is because of eating brinjal by the same principle which is entirely incorrect. The perception of root canals being painful began decades ago when root canal treatment was painful. However, with the latest technologies and anesthetics, root canal treatment today is no more uncomfortable than having a filling placed.[1]

Another prevalent myth is that there is a worm inside a decayed tooth and this could be due to the reason that majority of people do not know about initiation and progression of dental caries. To explain them about dental caries, most of the dentists relate dental caries to a "worm" in the native language that needs to be taken out to save the tooth.

Furthermore, there was a myth that throwing the exfoliated milk tooth of the child on the roof of a house in the presence of squirrel can lead to the eruption of the healthy permanent tooth, and the statistically significant relationship of this myth was noted with age, gender, and education level of participants. It is believed that squirrel takes the old tooth and returns it for a new one. This kind of behavior can be attributed from the family members, especially grandparents, who exerted a considerable influence on the family, especially the younger generation.[22]

Current belief states that there are side effects from teething, but any real cause-and-effect relationship is doubtful.[7] When the teething process starts, the child is usually in crawling stage, contaminates his hands, and takes the same contaminated hands to the mouth. This process is repeated due to irritation in gums at the eruption site which leads to infection of the throat as well as the GIT. People need to be educated about oral hygiene and dental health.[23]

Most of them 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.[15]

Various dental myth and false perception still lurk in the minds of the population, to discourage the unhealthy practices. It would be prudent to familiarize professionals to understand these myths and beliefs as they act as barriers toward seeking treatment.[24]

CONCLUSION

It is a fact that cultural beliefs are still affecting the oral health of the population. They may reflect a combination of limited knowledge regarding the importance of oral health. Physicians and dentists alike are becoming increasingly interested in teaching and practising evidence-based medicine. This has been defined as the conscientious, explicit, and judicious use of current best evidence in making decisions about patient care, rather than relying solely on intuition and experiences. The cultural beliefs are due to illiteracy and lack of knowledge, and they act as access barriers for the utilization of dental services. Coordinated efforts by dental care professionals, public health personnels, and grass root level workers are needed to impart health education regarding the prevailing and hence to provide dental care to the needy population.

REFERENCES

1. Kumar S, Mythri H, Kashinath KR. A clinical perspective of myths about oral health; A hospital based survey. Univ J Pharm 2014;3:35-7.
2. Rai M, Kishore J. Myths about diabetes and its treatment in North Indian population. Int J Diabetes Dev Ctries 2009;29:129-32.
3. Allchin D. Scientific myth-conceptions. Sci Educ 2003;87:32-51.
4. Tewari D, Nagesh L, Kumar M. Myths related to dentistry in the rural population of Bareilly district: A cross-sectional survey. J Dent Sci Oral Rehabil 2014;5:58-64.
5. Butani Y, Weintraub JA, Barker JC. Oral health-related cultural beliefs for four racial/ethnic groups: Assessment of the literature. BMC Oral Health 2008;8:26.
6. Craddock HL, Youngson CC. Eruptive tooth movement-the current state of knowledge. Br Dent J 2004;197:385-91.
7. Owais AI, Zawaideh F, Al-Batayneh OB. Challenging parents' myths regarding their children's teething. Int J Dent Hyg 2010;8:28-34.
8. Wake M, Hesketh K, Lucas J. Teething and tooth eruption in infants: A cohort study. Pediatrics 2000;106:1374-9.
9. Ashley MP. It's only teething. A report of the myths and modern approaches to teething. Br Dent J 2001;191:4-8.
10. Noman AV, Wong F, Pawar RR. Canine gouging: A taboo resurfacing in migrant urban population. Case Rep Dent 2015;2015:727286.
11. Shay K. Older Dental Patients: Myths and Realities. Continuing Education Course. Available from: http://www.Crest® Oral-B® at dentalcare.com. [Last accessed on 2010 Aug 19].
12. Chhabra N, Chhabra A. Parental knowledge, attitudes and cultural beliefs regarding oral health and dental care of preschool children in an Indian population: A quantitative study. Eur Arch Paediatr Dent 2012;13:76-82.
13. Peter S. Essentials of Public Health Dentistry. 5th ed. New Delhi: Arya (Medi) Publishing House; 2013.
14. Nagaraj A, Ganta S, Yousuf A, Pareek S. Enculturation, myths and misconceptions regarding oral health care practices among rural female folk of Rajasthan. Stud Ethno Med 2014;8:157-64.
15. Raina SA, Jain PS, Warhadpande MM. Myths and taboos in dentistry. Int J Res Med Sci 2017;5:1936-42.
16. Rai A, Menon I, Aruna DS, Singh A. Association between taboos in dentistry and oral health behavior among adult population of Ghaziabad. J Dent Specialities 2016;4:14-20.
17. Patil R, Mittal A, Vedapriya DR, Khan MI, Raghavia M. Taboos and misconceptions about food during pregnancy among rural population of Pondicherry. Calicut Med J 2010;8:1-5.
18. Singh SV, Akbar Z, Tripathi A, Chandra S, Tripathi A. Dental myths, oral hygiene methods and nicotine habits in an ageing rural population: An Indian study. Indian J Dent Res 2013;24:242-4.
19. Pandya P, Bhambal A, Bhambani G, Bansal V, Kothari S, Divya K. Dental care: Social myths and taboo. Peoples J Sci Res 2016;9:42-6.
20. Khan SA, Dawani N, Bilal S. Perceptions and myths regarding oral health care amongst strata of low socio economic community in Karachi, Pakistan. J Pak Med Assoc 2012;62:1198-203.
21. Yadav P, Shavi GR, Agrawal M, Choudhary P, Singh D. Myths and misconceptions about dentistry: A cross-sectional study. Arch Dent Med Res 2015;1:14-8.
22. Gambhir RS, Nirola A, Anand S, Gupta T. Myths regarding oral health among patients visiting a dental school in North India: A cross-sectional survey. Int J Oral Health Sci 2015;5:9-14.
23. Agarwal S, Tandon C, Tewari T, Chandra P, Azam A. Taboos and myths omnipresent in dentistry: A review. Int J Sci Res 2016;6:406-8.
24. Sharma R, Mallaiah P, Margabandhu S, Umashankar GK, Verma S. Dental myth, fallacies and misconceptions and its association with socio-dental impact locus of control scale. Int J Prev Public Health Sci 2015;1:14-20.

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