

Myths Related to Dentistry in People of Lucknow: A Cross sectional Study

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Abstract

Background: The existing literatures comprehend the prevalence of various myths related to dentistry amongst general public in different parts of India. Continuous efforts are being made by Public health dentists and other healthcare workers, to spread awareness and promote good oral health care across the nation. This study was done to assess the prevalence of myths related to dentistry among people of Lucknow. **Material & Method:** The study was carried out amongst the patients visiting the dental outpatient department of King George's medical University. 250 subjects were questioned about myths related to oral hygiene, teething and childhood, tobacco use, dental problems and dental treatment. **Results:** The results of all 23 questions were obtained in 3 sections ie 'Yes', 'No' and 'Don't Know' and percentage calculation was done for each question. In this study the maximum participants belonged to Upper lower class according to Kuppuswamy socioeconomic scale. The myths which were still prevalent in the population under study, were, cleaning teeth with a twig is better than toothbrush, falling of teeth with aging is a natural process and an ulcer which do not heal for a longer duration always lead to cancer. **Conclusion:** The results of this study concluded that there is increase in knowledge amongst the public of Lucknow city. The percentage of people who did not believe in the various myths questioned in this study was more than the people who still believed in it or were unaware of any such myths. Thus, we can say that the efforts been put up by various healthcare workers to create awareness are effective in eradicating the false traditional believes of Indian citizens but still there is a need to put in more hard work to demolish it completely and attain good oral health for all.

Keywords: Oral Health, Dental treatment, Misconception, Traditional belief, Non-scientific knowledge.

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INTRODUCTION

Oral health is a critical component of health and wellbeing but is overlooked in adults and children over ages. Oral health problems comprise of troubles such as dental caries, periodontitis and oral cancer globally [1]. The incidence of oral diseases is high among both developed and developing countries [2]. The oral health condition of a population is highly determined by the attitude of people and awareness regarding the oral cavity and the attitude of the dental profession providing dental care. Untreated dental ailments lead to poor oral health that can have a significant impact on general health.

Myths are false beliefs. They maybe a misconception, or a fictitious imaginary understanding that has no relevance with reality. Ignorance among humans, superstitions prevalent in the society and

imagination about things one does not know breeds such myths. Myths differ from country to country and society to society. Many myths thrive around the world regarding various procedures and outcomes. Factors that may lead to dental myths maybe socio-cultural factors, false traditional beliefs, lack of proper education or non-scientific knowledge [3]. They usually arise from over-exestuation of past events or rituals which is embedded into future generations [1]. A study done by Kanduluru A et stated that majority of the misconceptions were inherited from parents and grandparents [4]. Several dental myths were made to help or alleviate dental issues as much unnecessary anxiety and stress had developed around dentists and dental health care [3]. They are handed down one generation to another. these beliefs show the acceptance among people without any proof regarding it. These myths have a strong influence on the individuals and

there may of living and may also include seeking treatment during illness.

However without knowing the basic principles and unawareness regarding the various health issues may lead to serious consequences. Albeit modern dentistry has come a long way still these preconceived false notions relating to dental health maybe detrimental and lead to disability. With the system becoming complex and rise in expectations among people regarding health care practices has risen. An understanding about the misconceptions and myths need to be made and people should be made aware to provide excellent health care [5]. These myths need to be tackled to facilitate the proper utilization of resources to restrict disability at the initial stage [6]. Therefore, we need to find out the prevalence of common myths about oral health, diseases and treatment. The given study aims to assess the prevalence of these myths among people of Lucknow.

MATERIAL AND METHOD

A cross sectional study was conducted among the outpatient department of faculty of Dental Sciences King Georges Medical University, Lucknow. Ethical clearance was taken from ethical committee, King Georges Medical University. Patients who were mentally sound, above the age of 18 years and willing to participate in the study were included in this interview based questionnaire study. A written consent was signed by all the participants of the study. For illiterate patients, the consent form was read and explained by the investigator and their thumb impression was taken as their consent. Those people who were unable to comprehend the questions despite the assistance of the investigator were excluded from the study.

The sample size was calculated based on the prevalence from previous study and the minimum sample size calculated will be 246, but it was decided to include a total of 250 subjects. The formula used was $N=4pq/L^2$, Where, $p=81\%$ (prevalence from the literature available), $q=(1-p)=(1-81\%)=19\%$, $L=allowable\ error\ kept\ at\ 5$, Therefore, $N=4*81*19/(5*5)=246$.

For easy understanding of patients the questionnaire was in Hindi (local language) and in English. It consisted of demographic details of the patient and 23 close-ended questions. The questions were based on the myths associated with oral hygiene, teething and childhood, tobacco use, dental problems and dental treatment. The myths which were included in the study were the ones which we encountered in our day to day practice. Questionnaire was pretested and researcher administered. For each question the answer was scored 1 for 'yes', 2 for 'No' and 3 for 'don't know'.

After data collection it was analyzed using Statistical Package for Social Sciences (SPSS) version 17.

RESULTS

Table 1: The age group of the study population was 18-78 years with a mean age of 32 years \pm 0.92. It consisted of 60.8 % males and 39.2 % females. Out of the total sample, the maximum participants, 61.6% belonged to Upper lower class according to Kuppaswamy socioeconomic scale [6].

Table 2: Considering the myths related to oral hygiene (Questions 1-3), the percentage of people have who believed in various traditions like brushing teeth with greater pressure and for a longer duration cleans teeth better was 29.6% in contrast to 59.2% of people did not believed so and 8% of subjects who did not know about it. Similarly 47.6%, did not believe that powder is better than toothpaste for cleaning teeth compared to 35% who believed so and 17.2 % who were not familiar with it. On the contrary, 49.6% of the people said cleaning teeth with a twig is better than toothbrush while 40 % of the people did not have such faith, whereas 10% of the subjects had no idea about this.

Table 3: Various myths related to teething and childhood (Questions 4-6) showed that 50.4% of people felt the need of getting milk teeth treated compared to 33.2% who did not feel so, as the tooth would fall eventually and 16.4 % who did not know about it. Moreover, 56.4% of the respondents knew that mouth breathing and thumb sucking habits are not normal after the age of 3-4 years in correspondence to 30.4% who thought it to be a normal habit and 13.2 % who had no idea about it. Furthermore, 62% of the participants did not assume that keeping fallen teeth in rat holes and throwing on roof top can lead to health eruption of permanent teeth in difference to 24.4 % who deemed it and 13.6% who were not aware of any such myth.

Table 4: There have been a number of myths related to Tobacco Use too (Questions 7-10), like Smoking does not harm gums and teeth, in this study 47.6% of people did not trust so while 39.6% believed in it while 12.8 % of population did not know about it. Similarly the percentage of people who had faith that Spitting tobacco after chewing won't cause any harm were found to be 33.5% in contrast to 55.2% to supported the statement and 11.2 % who did not have any knowledge about it. Likewise, 66% of study population did not believe that consumption of gul manjan can treat dental problems in difference of thought to 21.6 % who believed so and 12.4% who had no idea about it.

Table 5: Last but not the least, there has also been convictions related to dental problems and dental treatment (Questions 11-23). This study showed that

72.8% did not believe getting teeth cleaned by a dentist will lead to loosening of teeth in comparison to 19.6 % who thought it's true and 7.9% who did not have any information about it. 51.6 % people believed that falling of teeth is a natural process compared to 38% who did not believe so and 10.4 % who did not know about it. Another myth concerning brushing was that it should not be done on having problem of bleeding gums, the results of this study showed 59.2% of respondents did not have faith in it, 29.6 % pursued the myth and 11.2% did not know its validity. 51.6 % people believed that falling of teeth is a natural process compared to 38% who did not believe so and 10.4 % who did not know about it. 42% of the people in this study believed that oral diseases do not lead to other health problems while 46.8% of people believed so and 11.2% didn't know about it. Dental treatment can't be done during pregnancy was another myth believed by 34.4% of respondents in comparison to 47.2 % who did not think so and 18.4% who had no clue about it. The myth that, a dentist should be consulted only when pain occurs, had about similar percentage of people who believed and did not believe the same, 46% and 46.8% respectively and 7.2% of the subjects were not aware of it. 46.4% of participants believed that an ulcer which does not heal for a longer duration always lead to

cancer compared to 38.8% who did not believe so and 14.8 % who had no idea about it. Many people avoided extraction of badly damaged tooth as they thought that extraction of teeth affects the vision, here the percentage of people who believed so was 39.6 % in comparison to 45.6% who did not think it's true and 14.8% with no idea about it. The proportion of population who thought that extraction of teeth is the only treatment for dental problems was 23.2% in comparison to 61.2 % who disagreed to this fact and 15.6% of subjects with no knowledge about it. Similarly, 48% of the people were sensitive to the fact that not getting their missing teeth replaced would cause any harm, in contrary to 33.6% of people who thought its harmless and 18.4% with no views. 31.2% of the subjects believed that Tooth pain can be cured by just taking medicines while 58.8 % knew they it won't and 10% who had no awareness about it. Additionally, 28.8 % of respondents had reliance over the fact that bacteria in teeth come out by medicines whereas 59.2% had no such faith and 12% who never heard of such fact. Moreover, 25.6% of the public believed that a denture once made never needs to be replaced while 59.2 % thought it should be replaced and 15.2 % with no information of the same.

Table-1: Demographic details of the study participants

		Frequency	Percentage
Gender	Male	152	60.8 %
	Female	98	39.2 %
Total		250	100 %
Socioeconomic Scale*	Upper	6	2.4 %
	Upper Middle	49	19.6 %
	Lower Middle	37	14.8 %
	Upper Lower	154	61.6 %
	Lower	3	1.2 %

Note: *The socioeconomic status has been calculated according to modified Kuppuswamy socioeconomic scale updated for the year 2019[7]⁷

Table-2: Various myths related to Oral Hygiene

S. No	Dental Myth	Gender	Response		
			Yes	No	Don't know
	Brushing your teeth with greater pressure and for a longer duration cleans teeth better	Male	33	109	10
		Female	14	74	10
		Total (%)	47 (18.8%)	183 (73.2%)	20 (8%)
	Cleaning your teeth with a twig is better than toothbrush	Male	77	60	15
		Female	47	40	11
		Total (%)	124 (49.6 %)	100 (40%)	25 (10%)
	Powder is better than toothpaste for cleaning teeth	Male	52	73	27
		Female	36	46	16
		Total (%)	88 (35%)	119 (47.6%)	43 (17.2%)

Table-3: Various myths related to Teething and Childhood

S. No	Dental Myth	Gender	Response		
			Yes	No	Don't know
	Milk teeth in children don't need to get treated as they will fall eventually	Male	50	73	29
		Female	33	53	12
		Total (%)	83 (33.2%)	126 (50.4%)	41 (16.4%)
	Mouth breathing and thumb sucking in children even after the age of 3-4 yrs is normal	Male	52	77	23
		Female	24	64	10
		Total (%)	76 (30.4%)	141 (56.4%)	33 (13.2%)
	Keeping fallen teeth in rat holes and throwing on roof top can lead to health eruption of permanent teeth	Male	37	95	20
		Female	24	60	14
		Total (%)	61 (24.4%)	155 (62%)	34 (13.6%)

Table-4: Various myths related to Tobacco Use

S. No	Dental Myth	Gender	Response		
			Yes	No	Don't know
	Smoking does not harm your gums and teeth	Male	59	67	26
		Female	40	52	6
		Total (%)	99 (39.6%)	119 (47.6%)	32 (12.8%)
	Spitting tobacco after chewing won't cause any harm	Male	55	80	17
		Female	29	58	11
		Total (%)	84 (33.6%)	138 (55.2%)	28 (11.2%)
	Smoking reduces acidity and prevents constipation	Male	50	78	24
		Female	30	52	16
		Total (%)	80 (32%)	130 (52%)	40 (16%)
	Consumption of gul manjan can treat dental problems	Male	40	92	20
		Female	14	73	11
		Total (%)	54 (21.6%)	165 (66%)	31 (12.4%)

Table-5: Various myths related to Dental Problems and Dental Treatment

S. No	Dental Myth	Gender	Response		
			Yes	No	Don't know
	Getting your teeth cleaned by a dentist will lead to loosening of teeth	Male	29	113	10
		Female	20	69	9
		Total (%)	49 (19.6%)	182 (72.8%)	19 (7.9%)
	Brushing should not be done when you are having problem of bleeding gums	Male	52	79	21
		Female	22	69	7
		Total (%)	74 (29.6%)	148 (59.2%)	28 (11.2%)
	Falling of teeth with ageing is a natural process	Male	77	60	15
		Female	52	35	11
		Total (%)	129(51.6%)	95 (38%)	26 (10.4%)
	Oral diseases do not lead to other health problems	Male	62	71	19
		Female	43	49	9
		Total (%)	105 (42%)	117 (46.8%)	28 (11.2%)
	Dental treatment can't be done during pregnancy	Male	48	75	29
		Female	38	43	17
		Total (%)	86 (34.4%)	118 (47.2%)	46 (18.4%)
	A dentist must be consulted only when pain occurs	Male	72	64	16
		Female	43	53	2
		Total (%)	115 (46%)	117 (46.8%)	18 (7.2%)
	Ulcer that doesn't heal for longer duration always leads to cancer	Male	69	60	23
		Female	47	37	14
		Total (%)	116(46.4%)	97 (38.8%)	37 (14.8%)
	Extraction of teeth affects the vision	Male	59	69	24
		Female	40	45	13
		Total (%)	99 (39.6%)	114 (45.6%)	37 (14.8%)

The only treatment for dental problems is getting teeth the extracted	Male	40	87	25
	Female	18	66	14
	Total (%)	58 (23.2%)	153 (61.2%)	39 (15.6%)
Not getting your missing teeth replaced won't cause any harm	Male	59	63	30
	Female	25	57	16
	Total (%)	84 (33.6%)	120 (48%)	46 (18.4%)
Tooth pain can be cured by just taking medicines	Male	48	90	14
	Female	30	57	11
	Total (%)	78 (31.2%)	147 (58.8%)	25 (10%)
Bacteria in teeth come out by medicines	Male	51	79	22
	Female	21	69	8
	Total (%)	72 (28.8%)	148 (59.2%)	30 (12%)
A denture once made never needs to be replaced	Male	46	82	24
	Female	18	66	14
	Total (%)	64 (25.6%)	148 (59.2%)	38 (15.2%)

DISCUSSION

In a developing country like India, various myths have been into existence since ages due to various socio-cultural factors, illiteracy and lack of awareness etc[8]. In our country eradication of misconceptions related to dentistry is of prime importance to improve the overall oral health of Indians. The Public health dentist across the nation has been putting efforts since years to spread awareness amongst the citizens of India and improve their oral health related quality of life.

The results of this study show that there has been increase in knowledge about a range of myths related to dentistry amongst the people of Lucknow city. There are 6 dental colleges in the capital of Uttar Pradesh, and the oral health care professionals have been putting up continuous pains to educate the general public and promote oral health care. The percentage of people have dropped down who believed in various myths related to oral hygiene, teething and childhood, tobacco use, dental problems and its treatment. All these findings were in disparity to the results of the research done by Vignesh and Priyadarshni among general population in Maduravoyal [9]. H Mythri and R Santosh's letter to editor too highlighted the prevalence of myths in Indians, like removal of upper tooth affects vision, milk teeth are not to be taken care of as much as permanent teeth as they will eventually fall and a denture once made is forever [10]. Jhanjee S et al. has point out need for specific intervention on dental myths related to tobacco use [11].

If we talk about the myths which were still prevalent in the population under this study, it would be Firstly, Cleaning teeth with a twig is better than toothbrush where 49.6% of the people responded yes and 40 % of the people said No to this question. Though many sticks have antibacterial properties it has higher chances of gingival trauma and occlusion wear on use. These findings were similar to the results of the work done by Kiran B.G et al. on rural population Andhra Pradesh and Singh SV et al. on same populace in North

India [3, 12]. On the other hand the outcome of the study done by Ain et al. on Kashmir population showed opposite results [6]. Secondly, the positive response of this study that towards the myth that falling of teeth with aging is a natural process was parallel to the findings of the study done by Watson et al. on Latinos children [13].

Thirdly, 46.4% of participants believed that an ulcer which does not heal for a longer duration always lead to cancer compared to 38.8% who did not believed so. This finding was similar to the findings of the study done by Tewari et al. in the rural population of Bareilly district [1].

There are few limitations of the study, since this study was a hospital based study, results cannot be generalized on a larger population. Also, that most of the myths which were included in the study were the ones which we encountered in our day to day practice, we have missed out multiple number of myths which are prevalent in our society.

CONCLUSION

The present study concluded that comparatively there has been increase in awareness amongst the target population. Thus, we can say that the labors of dental professionals to create awareness have been effective in eradicating the false traditional believes of Indian citizens but still there is a need to put in more hard work to demolish it completely and attain good oral health for all.

RECOMMENDATIONS

Since, the outcome of the study showed a large number of people who are still ignorant about the true facts pertaining to the myths related to dentistry. Considerable necessary actions are required to create more awareness to the public.

Moreover, school curriculum should include a chapter on scientific knowledge on oral health care; this would help the youth as well as the parents to learn the factual details about dental care.

REFERENCES

1. Tewari, D., Nagesh, L., & Kumar, M. (2014). Myths related to dentistry in the rural population of Bareilly district: A cross-sectional survey. *J Dent Sci Oral Rehab*, 5(2), 58-64.
2. What is the burden of oral disease? Available from: <http://www.who.int/oral-health/disease-burden/global/en/>. [Last cited on 2019 Nov 20].
3. Kiran, G. B., Pachava, S., Sanikommu, S., Simha, B. V., Srinivas, R., & Rao, V. N. (2016). Evaluation of dent-o-myths among adult population living in a rural region of Andhra Pradesh, India: A cross-sectional study. *Journal of Dr. NTR University of Health Sciences*, 5(2), 130.
4. Kanduluru, A., Manasa, S., Narayan, D. P., Reddy, M. T., & Sujatha, B. K. (2013). Assessment of misconceptions about oral health care and their source of information among out-patients attending dental college in Bangalore-A cross sectional survey. *Journal of Indian Association of Public Health Dentistry*, 11(4), 77.
5. Yadav, P., Shavi, G. R., Agrawal, M., Choudhary, P., & Singh, D. (2015). Myths and misconceptions about dentistry: A cross-sectional study. *Arch of Dent and Med Res*, 1, 14-8.
6. Ain, T. S., Gowhar, O., & Sultan, S. (2016). Prevalence of Perceived Myths Regarding Oral Health and Oral Cancer-causing Habits in Kashmir, India. *Int J Sci Stud*, 4(3), 45-49.
7. Saleem, S. M. (2020). Modified Kuppaswamy socioeconomic scale updated for the year 2020. *Indian Journal of Forensic and Community Medicine*, 7(1), 1-3.
8. Heglund, S.P. (2018). Dental myths: a deterrent to dental care seeking behaviors in developing countries *Med Case Rep Rev*, 1(3): 1-5.
9. Vignesh, R., & Priyadarshni, I. (2012). Assessment of the prevalence of myths regarding oral health among general population in Maduravoyal, Chennai. *Journal of Education and Ethics in Dentistry*, 2(2), 85.
10. Mythri, H., & Kumar, R. (2015). Perceived myths about oral health in India. *Indian Journal of Dental Research*, 26(3), 333.
11. Varshney, M., Ambekar, A., Lal, R., Yadav, D., Rao, R., & Mishra, A. (2016). Brief interventions for harmful alcohol use in opioid-dependent patients on maintenance treatment with buprenorphine: a prospective study from India. *Addictive Disorders & Their Treatment*, 15(3), 129-135.
12. Singh, S. V., Akbar, Z., Tripathi, A., Chandra, S., & Tripathi, A. (2013). Dental myths, oral hygiene methods and nicotine habits in an ageing rural population: an Indian study. *Indian Journal of Dental Research*, 24(2), 242.
13. Watson, M. R., Horowitz, A. M., Garcia, I., & Canto, M. T. (1999). Caries conditions among 2–5- year- old immigrant Latino children related to parents' oral health knowledge, opinions and practices. *Community dentistry and oral epidemiology*, 27(1), 8-15.