

Assessment of Dental Myths among the Subjects Attending a Dental Institution in Virajpet, Karnataka

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ABSTRACT

Introduction: Most of the human beliefs are acquired through communication, which is not always substantiated by facts and prevalent due to a variety of reasons like illiteracy, cultural beliefs and misconceptions. These beliefs in the field of dentistry misguide the patients and are a barrier in oral care delivery system. Aim of the study was to assess dental myths among subjects with different socioeconomic status attending a dental institute.

Material and method: A self-administered questionnaire was used among 367 participants aged 18 years and above selected randomly.

Results: There was a statistically significant association between Socioeconomic Status and questions related to teething, biting of hard substances, stains, brushing several times a day etc.

Conclusion: Many subjects were surprisingly unaware of the facts of dentistry. The various myths in the field of dentistry and about dental treatment which are still in the minds of general population should be set right.

Keywords: Misbelieves, Taboos in dentistry, Dental misconception.

INTRODUCTION

A culture is a way of life of a group of people - the behavior, beliefs, values and symbols that they accept, generally without thinking about them, and that are passed along by communication and imitation from one generation to the next.¹ It is defined as "learned behavior which has been socially acquired." Culture is the product of human societies and man is largely a product of his cultured environment.² Most of humans' beliefs, or at least most of their general beliefs, are acquired through communication. In fact, most of our misbelieves are culturally transmitted rather than individual mistakes, distortions, or delusions.³

India is a country with multitude cultures and its culture has its own concepts, beliefs based on its tradition shared by its people. Every culture has its own concepts of health, sickness and health promotion depicting values, belief, knowledge and practices.⁴

Myths take a very natural unknown origin in every community, describing plausible but, extraordinary past events.⁵ In our country, traditional belief of non-scientific base and

untrained unqualified dental professionals (quacks) are the main origin of myth.⁶

Most of these beliefs, especially in the field of dentistry misguide the patients and it is also a prime barrier in the oral care delivery system and also in the dental utilization pattern.³ Lots of dentistry related myths, which are considered as not to be false often, make people hesitant.⁷

Some of the myths are factual and thus can be believed. It's very much necessary to understand and to know what reality is. According to earlier literature the main reason for dental myths among dental patients was lack of awareness.⁷ Search of the literature revealed limited studies and data available related to this subject.

The aim of this study was to assess dental myths and to find out the association between the sociodemographic variables among the subjects attending Coorg Institute of Dental Sciences (CIDS), Virajpet.

MATERIALS AND METHODS

The study was conducted among 367 subjects aged 18 years and above attending outpatient department of Coorg Institute of Dental Sciences, Virajpet. Ethical clearance was obtained from the institutional review board and individual informed consent was taken. Those subjects who were not willing to participate and subjects in critical and emergency conditions were excluded. The study was conducted in the month of May and June 2014.

A pretested close-ended self-administered questionnaire was used to collect data on dental myths and demographic variables. The validity of questionnaire was checked by conducting a pilot study on 20 subjects visiting the dental college.

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The questionnaire was designed in English and then it was translated into Kannada and Malayalam. Kannada/ Malayalam/ English questionnaire was given according to the preferences of the participants. Questionnaire was distributed randomly to the participants and sufficient time was given to answer the questionnaire which was collected back on the same day.

2.1 Sample size is calculated using the relation $n=N/1+Ne2$, Where level of precision is

95%, i.e., $e= 0.05$

Total number of new subjects attending CIDS per day = 70 to 80 (75 ± 5)= 4500; Substituting the values in the above mentioned formula, the sample size obtained for the Study was, $n = 4500/ 1+ (4500 \times [0.05 \times 0.05]) = 367$

STATISTICAL ANALYSIS

The survey data so obtained from the selected sample was compiled, systematized, tabulated and master sheet was prepared (MS-Office, Excel). The data was analyzed using SPSS version 17. The level of significance was set at 5%. Statistical tools used – Descriptive Statistics, Chi-square test.

Age	No. of subjects	Male (%)	Female (%)
18-35 yrs.	236 (64.3%)	127 (53.8)	109 (46.2)
36-55 yrs.	115 (31.3%)	60 (52.2)	55 (47.8)
>55 yrs.	16 (4.4%)	9 (56.3)	7 (43.7)
Total	367	196	171

Table-1: Distribution of Study subjects based on Age and Gender

RESULTS

Table no.1 shows that study population consisted of 46.6% (n=171) females and 53.4% (n=196) males and majority of the subjects were in the age group of 15-35 years (64.3%). Among the study population, 138 (37.6%) had college education level and 99 (27%) were skilled workers. Table no. 3 shows that 230 (62.8%) were married. According to socio economic status 4 subjects (1.08%) belong to lower class, 263 (71.66%) subjects to upper lower socioeconomic class, 92 (25.06%) to lower middle class and 6 (1.63%) subjects to upper middle class.

Table no. 2, 3 and 4 shows that there was a statistically significant association between socioeconomic status and the following questions: Q1- teething will lead to dysentery ($p<0.026$); Q7- biting of hard substances will make the teeth strong ($p<0.022$); Q8- stains are due to biting of brinjal or banana stem($P<0.048$); Q17- brushing several times a day and using too much force help to prevent tooth decay ($p<0.049$); Q18- there is no need to see a dentist if you don't feel or see apparent dental problem ($p<0.024$); Q21- a pregnant lady is not supposed to take dental treatment until after delivery ($p<0.018$); Q22- the sure way of treating toothache is extraction ($p<0.049$); Q28- X-ray is not required for dental treatment ($p<0.008$).

However there was no statistically significant association between Socioeconomic Status and the following questions: Q2- dental infection will spread among siblings ($p<0.085$); Q3- Dental infection results from god's Curse($p<0.577$); Q4- cleaning with salts or fine soil will make tooth white and shiny($p<0.072$); Q5- of "neemstick" or" datoon" instead of

Questions/ Response	Lower class (%)	Upper low-er (%)	Lower middle (%)	Upper middle (%)	Total (%)	chi-square test	p-value	
Q1.	Agree	4 (2.7)	108 (73)	31 (20.9)	5 (3.4)	148 (100)	9.294	0.026*
	Disagree	0 (0)	155 (70.8)	61 (27.9)	3 (1.4)	219 (100)		
Q2.	Agree	1(1.0)	79 (81.4)	15 (15.5)	2 (2.1)	97 (100)	6.624	0.085
	Disagree	3 (1.1)	184 (68.1)	77 (28.5)	6 (2.2)	270 (100)		
Q3.	Agree	0 (0.0)	32 (71.1)	13 (28.9)	0 (0.0)	45 (100)	1.978	0.577
	Disagree	4 (1.2)	231 (71.7)	79 (24.5)	8 (2.5)	322 (100)		
Q4.	Agree	3(1.4)	151 (72.6)	53 (25.5)	1 (0.5)	208 (100)	6.996	0.072
	Disagree	1 (0.6)	112 (70.4)	39 (24.5)	7 (4.4)	159 (100)		
Q5.	Agree	4 (2.1)	144 (74.6)	42 (21.8)	3 (1.6)	193 (100)	6.606	0.086
	Disagree	0 (0.0)	119 (68.4)	50 (28.7)	5 (2.9)	174 (100)		
Q6.	Agree	0 (0.0)	52 (73.2)	18 (25.4)	1 (1.4)	71 (100)	1.233	0.745
	Disagree	4 (1.4)	211 (71.3)	74 (25.0)	7 (2.4)	296 (100)		
Q7.	Agree	3 (2.9)	81 (78.6)	18 (17.5)	1 (1.0)	103 (100)	9.590	0.022*
	Disagree	1 (0.4)	182 (68.9)	74 (28.0)	7 (2.7)	264 (100)		
Q8	Agree	0 (0.0)	106(74.1)	37 (25.9)	0 (0.0)	143 (100)	7.920	0.048
	Disagree	4 (1.8)	157 (70.1)	55 (24.6)	8 (3.6)	224 (100)		
Q9	Agree	0 (0.0)	83 (72.2)	30 (26.1)	2 (1.7)	115 (100)	2.050	0.562
	Disagree	4 (1.6)	180 (71.4)	62 (24.6)	6 (2.4)	252 (100)		
Q10	Agree	3 (2.4)	89(70.6)	29 (23.0)	5 (4.0)	126 (100)	6.100	0.107
	Disagree	1 (0.4)	174 (72.2)	63 (26.1)	3 (1.2)	241 (100)		

* P <0.05; ** P < 0.01

Table-2: Association between the Socioeconomic Status and the various questions of the questionnaire

Questions/ Response	Lower class (%)	Upper lower (%)	Lower middle (%)	Upper middle (%)	Total (%)	chi-square test	p-value	
Q11	Agree	3 (3.2)	70 (73.7)	19 (20.0)	3 (3.2)	95 (100)	6.978	0.073
	Disagree	1 (0.4)	193 (71.0)	73 (26.8)	5 (1.8)	272 (100)		
Q12	Agree	1 (0.9)	83 (71.6)	26 (22.)	6 (5.2)	116 (100)	7.526	0.057
	Disagree	3 (1.2)	180 (71.7)	66 (16.3)	2 (0.8)	251 (100)		
Q13	Agree	0 (0.0)	87 (70.2)	32 (25.8)	5 (4.0)	124 (100)	5.089	0.165
	Disagree	4 (1.6)	176 (72.4)	60 (24.7)	3 (1.2)	243 (100)		
Q14	Agree	1 (0.9)	84 (73.0)	29 (25.2)	1 (0.9)	115 (100)	1.440	0.696
	Disagree	3 (1.2)	179 (71.0)	63 (25.0)	7 (2.8)	252 (100)		
Q15	Agree	3 (2.9)	73 (70.2)	27 (26.0)	1 (1.0)	104 (100)	5.367	0.147
	Disagree	1 (0.4)	190 (72.2)	65 (24.7)	7 (2.7)	263 (100)		
Q16	Agree	0 (0.0)	70 (71.4)	23 (23.5)	5 (5.1)	98 (100)	6.832	0.077
	Disagree	4 (1.5)	193 (71.7)	69 (25.7)	3 (1.1)	269 (100)		
Q17	Agree	0 (0.0)	152 (71.4)	58 (27.2)	3 (1.4)	213 (100)	7.871	0.049*
	Disagree	4 (2.6)	111(72.1)	34 (22.1)	5 (3.2)	154 (100)		
Q18	Agree	0 (0.0)	139 (73.5)	49 (25.9)	1 (0.5)	189 (100)	9.426	0.024*
	Disagree	4 (2.2)	124 (69.7)	43 (24.2)	7 (3.9)	178 (100)		
Q19	Agree	3 (2.7)	78 (69.6)	30 (26.8)	1 (0.9)	112 (100)	5.239	0.155
	Disagree	1 (0.4)	185 (72.5)	62 (24.3)	7 (2.7)	255 (100)		
Q20	Agree	4 (1.8)	155 (68.6)	62 (27.4)	5 (2.2)	226 (100)	4.589	0.204
	Disagree	0 (0.0)	108 (76.6)	30 (21.3)	3 (2.1)	141 (100)		

* P < 0.05; ** P < 0.01

Table-3: Association between the Socioeconomic Status and the various questions of the questionnaire.

Questions/ Response	Lower class (%)	Upper lower (%)	Lower middle (%)	Upper middle (%)	Total (%)	chi-square test	p-value	
Q21.	Agree	0 (0.0)	136 (67.7)	60 (29.9)	5 (2.5)	201 (100)	10.084	0.018
	Disagree	4 (2.4)	127 (76.5)	32 (19.3)	3 (1.8)	166 (100)		
Q22.	Agree	3 (2.8)	69 (63.9)	34 (31.5)	2 (1.9)	108 (100)	7.877	0.049
	Disagree	1 (0.4)	194 (74.9)	58 (22.4)	6 (2.3)	259 (100)		
Q23.	Agree	0 (0.0)	101 (73.2)	36 (26.1)	1 (0.7)	138 (100)	4.722	0.193
	Disagree	4 (1.7)	162 (70.7)	56 (24.5)	7 (3.1)	229 (100)		
Q24.	Agree	1 (0.6)	118 (72.8)	41 (25.3)	2 (1.2)	162 (100)	1.846	0.605
	Disagree	3 (1.5)	145 (70.7)	51 (24.9)	6 (2.9)	205 (100)		
Q25.	Agree	3 (1.3)	162 (67.8)	66 (27.6)	8(3.3)	239 (100)	7.669	0.053
	Disagree	1 (0.8)	101 (78.9)	26 (20.3)	0 (0.0)	128 (100)		
Q26.	Agree	0 (0.0)	104 (70.7)	38 (25.9)	5 (3.4)	147 (100)	4.440	0.218
	Disagree	4 (1.8)	159 (72.3)	54 (24.5)	3 (1.4)	220 (100)		
Q27.	Agree	1 (1.1)	72 (80.9)	16 (18.0)	0 (0.0)	89 (100)	6.318	0.097
	Disagree	3 (1.1)	191 (68.7)	76 (27.3)	8 (2.9)	278 (100)		
Q28	Agree	3 (3.1)	63 (64.3)	32 (32.7)	0 (0.0)	98 (100)	11.765	0.008**
	Disagree	1 (0.4)	200 (74.3)	60 (22.3)	8 (3.0)	269(100)		
Q29	Agree	3 (2.2)	92 (66.7)	38 (27.5)	5 (3.6)	138 (100)	5.806	0.121
	Disagree	1 (0.4)	171 (74.7)	54 (23.6)	3 (1.3)	229 (100)		
Q30	Agree	0 (0.0)	80 (74.1)	28 (25.9)	0 (0.0)	108 (100)	5.173	0.160
	Disagree	4 (1.5)	183 (70.7)	64 (24.7)	8 (3.1)	259 (100)		
Q31	Agree	0 (0.0)	110 (71.0)	44 (28.4)	1 (0.6)	155 (100)	7.021	0.071
	Disagree	4 (1.9)	153 (72.2)	48 (22.6)	7 (3.3)	212 (100)		

* P < 0.05; ** P < 0.01

Table-4: Association between the Socioeconomic Status and the various questions of the questionnaire.

toothbrush will be more effective for oral hygiene(P<0.086); Q6- use of brick powder makes the teeth strong(P<0.745); Q9- scaling will weaken the tooth structure (P<0.562); Q10- placing of tobacco over painful tooth will reduce pain (p<0.107); Q11- consumption of alcohol will reduce tooth

pain(p<0.073); Q12- extraction of teeth will affect eye vision (p<0.057); Q13- extraction of upper teeth will affect brain (p<0.165); Q14- eruption of third molar will increase wisdom(p<0.696); Q15- exfoliated tooth should be buried(p<0.147); Q16- tooth will erupt at old age (p<0.077);

Q19- we should not eat anything when we are going for tooth extraction ($p < 0.155$); Q20- we should not extract or do RCT when we have a swelling especially abscess ($p < 0.204$); Q23- putting powder of pain killer like aspirin, panadol and cafenol in the hole of decay tooth help to stop pain ($p < 0.193$); Q24- good teeth are inherited ($p < 0.605$); Q25- there is no need to worry about milk teeth as they will eventually fall out with time ($p < 0.053$); Q26- teeth eruption in child causes diarrhoea ($p < 0.218$); Q27- a child born with teeth (neonatal) or whose upper front teeth erupt before the lower tooth is a sign of bad luck in the family ($p < 0.097$); Q29- we should not brush our teeth if there is bleeding during brushing ($p < 0.121$); Q30- cavity is due to leaching of calcium by baby during pregnancy ($p < 0.160$); Q31- there are more than two sets of teeth in some human being ($p < 0.071$) as shown in Table no.4.

DISCUSSION

Oral hygiene awareness and practices may differ from country to country and among communities depending on traditional beliefs and socioeconomic development.⁶ The purpose of the present study was to assess the dental myths among subjects according to socio economic status. In the present study majority of subjects belonged to social class of upper lower (71.66%) and lower middle (25.06%).

About the myths 65% of study subjects are having an opinion of not to worry about milk teeth, which is slightly more than compared to the study done by Vignesh R and Priyadarshni I, where 64.8% respondents believed that decay in milk teeth need not be treated as they are going to fall away.⁵ In the present study 58% participants thought that brushing several times a day and using too much of force helped in preventing tooth decay. This was in agreement with the study done by Vignesh R and Priyadarshni I, where 70% respondents believed that the more they brushed using hard bristled brush whiter the teeth became.⁵

56.7% of subjects had a conception that dental infections spread among siblings. These results are in contrast to a study done by N Saravanan and R Thiruneevannan, where only 13% thought so, and 56.7% of subjects had a conception that cleaning with salts or fine soil for white and shiny teeth.⁸ This was in agreement with the study done by Vignesh R et al, where 56.8 % thought so.⁵ But this was in contrast to the study results done by N Saravanan et al, where only 15% thought so.⁸

54.8% are having a misconception that pregnant lady is not suppose to take dental treatment until after delivery which will cause her to suffer more during pregnancy. 52.6% of the study subjects thought using of neemstick instead of toothbrush was more effective for oral hygiene. The result was in contrast to the study done by N Saravanan and R Thiruneevannan where only 18% believed so.⁸

51.5% of the subjects have a concept that, there is no need to see a dentist if there is no apparent dental problem. These results were in agreement with the study done by Vignesh

R and Priyadarshni I, where 68.4% believed that it is not required to visit a dentist unless pain occurred in teeth.⁵ 31-50 % of the subjects have the misconception like stains due to biting of brinjal or banana stem, scaling would weaken the tooth structure, brushing their teeth if there was bleeding during brushing, placing of tobacco to reduces tooth pain, extraction and effect on eye vision, extraction of upper teeth affected the brain, not eat anything when they are going for tooth extraction and 31.3% for third molar eruption and increasing wisdom.

10-30 % of the subjects have the misconception like dental infections due to God curse, using of brick powder to makes the teeth strong, biting of hard substances for strong teeth, consumption of alcohol reduced tooth pain, tooth erupted at old age, child born with teeth of bad luck in the family, leaching of calcium from the mother by the baby during pregnancy leading to cavity and exfoliated tooth should be buried.

CONCLUSION

In this 21st century with lot of advancements in dental field still several patients are unaware of the facts of dentistry. In the present study the myths about dentistry varied up to 65% in some questions. More than 50% of subjects having myths in many questions, the various myths in the field of dentistry and regarding dental treatment which is still in minds of general population should be set right. So, it's our duty to help the people learn and know the reality and take necessary steps to rectify them.

REFERENCES

1. <http://www.tamu.edu/faculty/choudhury/culture.html>
2. K.Park. Preventive and Social Medicine. 19th ed. Jabalpur, India: 2007.
3. Sperber D. Culturally transmitted misbeliefs. In Behavioral and Brain Sciences 2009;32:534-535.
4. S Vivek, Jain J, Simon SP, Battur H, Tikare S, Mahuli A. Understanding oral health beliefs and behavior among tribals in Kerala, India. J. Int Oral Health. 2012; 4:24-27.
5. Vignesh R and Priyadarshni I. Assessment of the prevalence of myths regarding oral health among general population in Maduravoyal, Chennai. J. Of Edu and Ethics in Dent. 2012; 2:85-91.
6. Singh SV, Tripathi A, Akbar Z, Chandra S, Tripathi A. Prevalence of dental myths, oral hygiene methods and tobacco habits in an ageing North Indian rural population. The Gerodontology Soc and John Wiley & Sons A/S, Gerodontology 2012;29:53-56.
7. Khan SA, Dawani N, Bilal S. Perceptions and myths regarding oral health care amongst strata of low socio economic community in Karachi, Pakistan. J. of Pak. Medical Association. 2012;62:1198-1203.
8. Saravanan N and Thiruneevannan R. Assessment of dental myths among dental patients in Salem city. J of

- Ind Association of Public Health. 2011;18;11-18
9. Logan HL, Ettinger R, McLeran H, CascoR. Common misconceptions about oral health in the older adult: nursing practices. *Special Care in Dentistry*. 1999;11:243-247.
 10. Sagar J A. Myths about prosthodontics. *Eur. J.Of Prosthodontics*. 2013;1:56- 62.
 11. Singh SV, Tripathi A, Akbar Z, Chandra S, Tripathi A. Dental myths, oral hygiene methods and nicotine habits in an ageing rural population: An Indian study. *Indian J of Dent Res* 2013; 24:242-244.
 12. <http://www.nhs.uk/Livewell/dentalhealth/Pages/TheTruthAboutTeeth.aspx> Fact or fiction?
 13. Kwan SYL, Holmes MAM. An exploration of oral health beliefs and attitudes of Chinese in West Yorkshire: a qualitative investigation. *Health Edu Res*.1999;14:453-460.
 14. rukomandentalanswer.blogspot.in/2013/02/wrong-beliefs-about-dental-procedure.html.
 15. Mythri et al. A clinical perspective of myths about oral health; a hospital based survey. *Universal Journal of Pharmacy*. 2014;3: 35-37.

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