

# Myths in Dentistry - Perception or Truth? A Cross Sectional Survey

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## ABSTRACT

**Objective:** To determine the knowledge, attitude and practices of people of Karachi regarding myths in dentistry.

**Study Design:** Observational / Descriptive / Cross sectional study.

**Place and Duration of Study:** This study was conducted at the OPD of Karachi Medical and Dental college and citizens of Karachi January 2015 – June 2015.

**Materials and Methods:** The sample size was 150. Patients were recruited through convenience sampling. Data regarding myths in dentistry was recorded on a predesigned proforma. Data was analyzed using SPSS 17.00.

**Results:** Results of the study shown that people with elderly age i.e. 39-50 years and with illiterate and primary level of education are most commonly involved in myths regarding dentistry. Females are the most common respondents involved in dental myths.

**Conclusion:** It has been concluded from the study that dental myths are common facet of our community. There is a need to carry out community awareness programmes in order to teach and guide the community for these misconceptions.

**Key Words:** Dentistry, dental' mythology, Oral health, belief, culture, Perception

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## INTRODUCTION

Good oral health is a characteristic for general health. It not only maintains the physical health but also improves the psychological and social wellbeing of a person.<sup>1</sup> The prevalence of different oral and dental diseases in Pakistani population is incredibly significant. The most common oral diseases may vary from uncomplicated dental caries up to terminal oral cancer. Studies have reported that oral cancer is the sixth most common cancer in the world<sup>2</sup> and it accounts for 10% of all cancers in Pakistan<sup>3</sup> and data from Karachi cancer registry has shown that Oral Squamous Cell Carcinoma comprises of 9.8% of all malignancies of our community.<sup>3-6</sup>

Myth normally arises from a traditional belief of non-scientific base, or from unqualified and untrained dental professionals called 'quacks'. Over a period of generations, such ideas become ingrained in the psyche of many individuals, and pose a threat to the acceptance of scientific and modern dental treatment. In scientific terms, myth is refers to an extensive and unquestioned

false perspective.<sup>7</sup> Perception is a process through which an individual becomes conscious about and interpret information regarding the situation, but the course of perception is essentially subjective in nature because it is not a precise reflection of the situation. A situation can be the same for two individuals but its interpretation is different.<sup>8</sup>

Education plays an important role of backbone in the progress of civilized nations. The literacy rate of a country depicts its future. The overall literacy rate of Pakistan is 53% (65% for males and 40% for females) which is below the optimum literacy level from a civilized nation.<sup>9</sup>

It has been observe that low level of education especially in females may leads to the generation of wrong perceptions and myths in life. As mothers they may leads to the progression of myths and erroneous perceptions in their offsprings. Internationally many studies have been conducted to investigate the peoples perception towards myths but scanty data is available at national level.<sup>10,11,12,13.</sup>

Due to dearth of data on the subject this study was planned and conducted with the objective that to evaluate the knowledge, attitude and practices of people regarding dental myths and their association with the level of education.

## MATERIALS AND METHODS

The observational / descriptive / cross sectional study has been conducted from the visitors visited the OPD of Karachi Medical and Dental college and citizens of Karachi. The duration of study is six months i.e. from January 2015- June 2015. After obtaining informed

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verbal consent from the people, the sample was recruited through convenience sampling. The sample size was calculated through Raosoft software which calculated the sample size of 297 interviewee with the 5% margin of error, 95% confidence level, the population size 1300, the response distribution of 50%. We selected 300 people with equal gender distribution. i.e. 150 males and 150 females. The sample consists of 300 individuals aged 18 – 50 years. The inclusion criteria include people belonging to both genders and common people consented for the study. The exclusion criterion includes medical and dental professionals, medical and dental students, dental personnales, handicap and mentally retarded individuals and common people not consented for the study.

The investigators recorded the data in a predesigned, close-ended multiple-choice questionnaire. The questions, based on the available literature, were presented in the both vernacular to the subjects and will concentrate on the prevalence of common dental myths. In case a subject is illiterate, the proforma was filled by the researcher. The proforma consists of the demographics of individual followed by questions regarding dental myths. Data was entered and analyzed by using SPSS version 19.00. The samples were grouped on the basis of age, gender, educational status. The subjects divided into groups on the following basis:

- Age-Group 1: 18–28 years, Group 2: 29–38 years, Group 3: 39 - 50 years
- Gender-Group M: Males, Group F: Females.
- Educational status-Group a: Primary, Group b: Matric, Group c: Intermediate, Group d: Graduate. Group e: Postgraduate, Group i: Illiterate

The qualitative variables will be measured using mean  $\pm$ SD while the quantitative variables will be measured in percentage.

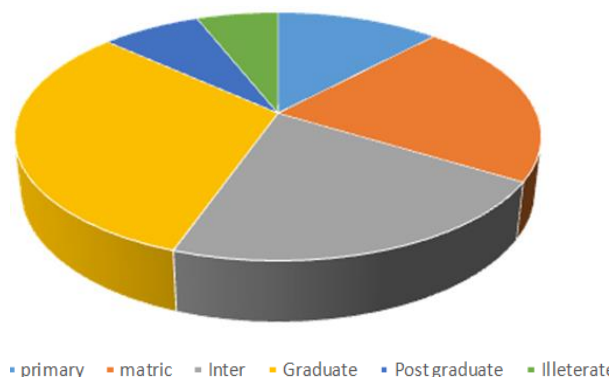
## RESULTS

Results of the study shown that people with elderly age i.e. 39-50 years and with illiterate and primary level of education. Females are the most common respondents. The basic demographic of participants were tabulated in table-1. Table 2 demonstrates the relationship of educational status and dental myths and table 3, shows the relationship of age and dental myths. Figure 1 demonstrate the graph of patient's educational status.

**Table No. I: Basic Demographic of participants**

S. No.	Age	Gender	
		Males %	Females %
1	18- 28	35	73
2	29 – 38	36	33
3	39 – 50	80	43

**PATIENTS EDUCATION STATUS**



**Table No.2: Relationship of Educational status and dental myths**

S. No.	Educational status	Total no (n)	Extraction affects vision %	Milk teeth decay %	hereditary Cavity %	White teeth are healthy %	Oral ulcers are stomach problem %	Teething causes diarrhea %
1	Primary	36	44.4	58.3	25	72.2	63.8	75
2	Matric	65	47.6	58.4	12.3	76.9	81.5	75.3
3	Inter	65	40	43	9.2	76.9	61.5	70.7
4	Graduate	94	35.1	52.1	8.5	72.3	72.3	76.5
5	Post Graduate	22	4.5	36.3	0	59	68.1	77.2
6	Illiterate	18	38.8	55.5	16.6	83.3	88.8	61.1

**Table No.3: Relationship of Age and dental myths**

S. no.	Pt's age	Total no. (n)	Extraction affects vision %	Milk teeth decay %	Cavity is hereditary %	White teeth are healthy %	Oral ulcers are stomach problem %	Teething causes diarrhea %
1	18 – 28	108	33.3	47.2	13.8	69.4	60.1	65.7
2	29 – 38	69	36.2	47.8	4.2	75.3	75.3	75.3
3	39 – 50	123	43	56.9	13	77.2	79.6	80.4

## DISCUSSION

Myths and wrong perceptions regarding any treatment

or aspect of dentistry are very common in our society. They may arise due to low education, lack of knowledge, misinterpretation of information which is

easily available on the internet, self assumptions and lack of precision exploration before its implementation. They usually had ancestral background too. These myths if strong can constraint people in seeking oral treatments and maintenance of good oral health.

It has been concluded from the results of our study that the most common gender involved in dental myths are females. This is in consistent with the study conducted in Karachi which showed female propendrance.<sup>1</sup>

Our study also revealed that 39-50 years age group was most commonly involved in dental myths this could be due to increase age, strong believes on myths, lack of education, social system, strong ancestral background and lack of awareness.

The most common educational group involved in the myths is people with primary education. This revealed the role of education and knowledge. It has been in consistent with the studies conducted by Khan SA and colleagues which revealed that 30.7% are literate people in their study.<sup>1</sup>

The 46.3% of the people with matric qualification and age group of 39-50 years responded that removal of upper teeth affects vision. Although orbital cellulitis and facial space infections has been reported after tooth extraction.<sup>14,15</sup> But direct effect on vision is a non scientific logic. In a local study conducted in Karachi in 2011, revealed that 47% of the population had belief on it and it has significant association with age, gender and educational level of the individuals.<sup>1</sup>

Milk teeth decay need not be treated as they are going to fall off anyway it is also a misconception and maximum people with metric qualification and 39-50 years of age people responded for it. This is in consistent with the study that was conducted in Jaipur, India and revealed that 43 % of the respondents had believe on it.<sup>16</sup>

My parents did not have any cavities or dental problems, so I will not either. The response distribution for this question is maximum in people with 18-28 years of age and people with primary level of education have responded for this question. This misconception is a reflection of strong ancestral followism as every new generation has different environment, habits, dietary patterns, predisposition of diseases and lifestyle. By the advent of modern era the eatong habits are frequently shifted to processed and refined sugars and carbohydrates replacing fibrous food as compare to their previous ones.<sup>17</sup>

It is also a misconception that if the tooth is white in colour, it is healthy. Tooth colour is a genetically determined and it usually reflects the color of dentine. Normal tooth colour varies from white to yellowish pale. There are many causes of tooth discoloration<sup>18,19</sup> but people generally have this misconception that only teeth, which are white in colour, are healthy. The results of our study has shown that highest proportion of illiterate people and elderly age i.e. 39-59 years people gives maximum response to this question. People

should aware that they must seek proper consultation for any tooth discoloration rather than making self-assumptions as this may leads to further delay diagnosis and therefore treatment.

The only cause of bad breath & oral ulcers is stomach problem. Again illiterate and elderly age group have the highest response rate for this question. Oral ulceration can be secondarily occur because of pernicious anemia, vitamin B2 deficiency and plummer vinson syndroem etc.<sup>20</sup> Halitosis and bad breath can be caused by variety of factors and only GIT diseases are not responsible for them.<sup>21</sup> People should seek care and treatment for it as once appropriate diagnosis has been made the treatment can be easily rendered.<sup>22</sup>

Teething will cause severe diarrhoea and fever in children. In our study elderly people and surprisingly people with postgraduate qualification gives maximum response for this question. This is in consistent with the study which revealed that 75% of patients agreed teething is responsible for fever, diarrhea and sleep disturbances. However these problems are due to systemic infections and upset.<sup>23</sup>

It has been recommended that the level of education should be increased for every individual. Community awareness programmes must be planned and initiated which educates and teaches people regarding dental myths. Dentist and dental practitioners should counsell the patients for their misconcepts about dental treatments. Government should discourage quackery practice and guides the citizen for their oral health through oral health programmes. Media should also play positive role in educating people regarding authentic dental treatments.

People who have low standard of living, are not well educated, should be given due attention for dental health education and awareness programs.

## CONCLUSION

It has been concluded from the study that dental myths are common aspect of our community. There is a need to carry out community awareness programmes in order to teach and guide the community for these misconceptions.

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