

Myths and Misconceptions Associated with Dental Extractions: A Cross Sectional Study

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Abstract

Background: Myths and misconceptions originated from cultural, ethnic and religious beliefs and usually travels from generation to generation without any evidence. It is essential to have the knowledge and understanding of these myths to provide good oral care as well as education to the people.

Objective: The objective of the study was to determine the myths prevailing among general population regarding the dental extractions.

Study type, settings & duration: A descriptive cross sectional study was conducted at the Islamabad Dental hospital, Bhara Kahu, Islamabad from April to September 2019.

Methodology: The convenient sampling method was used for the study. Participants of age 18-60 years were enrolled irrespective of gender were included. A face to face interview was conducted with the enrolled participant after informed consent. Data was collected in a study proforma and descriptive analysis was carried out to calculate the frequency and percentages using SPSS version 23.

Results: A total of 260 participants i.e. 142 (54.6%) males and 118 (45.4%) females with the mean age of 35.59±13.12 years were enrolled in the study. Only few participants (3%) were having masters level education. Participants having past experience of dental filling were 48.5% and of dental extraction were 46.5%. Participants believing on different myths regarding dental extractions ranged from 11.9 to 70.8%. A statistically significant difference was found among gender and education level of the participants.

Conclusion: It was concluded that still a very high percentage of myths regarding dental extractions were found in society. Less educated people were more believer of these myths. Gender wise difference was also noted in the current study and female were found to be more believer of myths.

Key words: Myths, gender, education level, oral health, dental care.

Introduction

Dental extractions or exodontia is a most common dental procedure which is routinely practiced by dental surgeons.¹ A common belief which prevails is that dental extraction is mostly extremely painful and time taking procedure.² However, ideal tooth extraction is defined as “the

painless removal of the whole tooth or root with minimal trauma to the investigating tissue, so that the wound heals uneventfully and no post-operative prosthetic problem is created”.³ The various indications for exodontia include; caries, periodontal diseases, eruption problems, pre prosthetic procedures, trauma, orthodontic treatment and occlusal problems.⁴ The most common need for dental extractions is caries followed by periodontal diseases.^{5,6}

Regardless of the tremendous and speedy progress in different fields of health care throughout the world, many people in developing countries are still living with their cultural beliefs and myths intact. Myths are misconceptions originated from cultural, ethnic and religious beliefs and usually travels from generation to generation without any evidence.⁷ These are traditional stories, false beliefs or ideas that are considered truthful. They are concerned with the early history of a group of people. In scientific terms, a myth is referred to as an

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Authors Contribution

KMS & MZB conceptualized the project and performed the statistical analysis. AMK & FS did the data collection. AMS & NAQ did the literature search. Drafting, revision & writing of manuscript were also done by KMS, MZB & AMS.

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extensive and unquestioned false perspective.⁸ These myths may adversely affect the oral health conditions of people through dietary habits, reluctance in seeking dental care, and through self-treatment at home.⁹ These myths can greatly influence the treatment options that a patient may seek for a dental illness; therefore, they must be properly addressed in order to achieve optimal oral health care.¹⁰

Many studies have been conducted in developing countries throughout the world to assess the correlation between myths and dentistry. A very high percentage of people believed on myths regarding dentistry as high as 96.1%.¹¹ A high prevalence of dental myths was found in older, less educated, females and rural population.¹² It was also observed that who had never visited a dentist believed in more myths as compared to those who had visited a dentist before.¹¹ Different myths were found in literature relating to dentistry.¹⁰ Different myths related to dentistry reported in literature were expensive dental treatment, always painful, wisdom extractions, loosening of teeth after scaling, tooth loss as a result of ageing, prevention of caries by tobacco consumption, and weakening of eye sight after dental extractions.^{11,12}

Myths regarding dental extractions were also found. Most common myths revealed in literature were, tooth extraction always painful, one extraction can deteriorate all of the dentition, extracted teeth cannot be replaced, maxillary extraction leads to loss of vision.^{9,12}

Myths varies according to regions, people and religions. Myths have very deep roots in the society, so it is problematic to eradicate.¹³ These myths also travel from generation to generation in specific group of people. It is essential to have the knowledge and understanding of these misconceptions and myths in the population to provide good oral care as well as education to the people.⁷

Therefore, a study was planned to determine the myths prevailing among general population regarding the dental extractions. Since no study has been documented on myths related to dental extractions in local population. Our study attempt to develop awareness among dental health providers regarding the occurrence of false beliefs that patients may associate with dental extractions. This may enable the dentists to educate such patients accordingly in order to achieve better dental health care.

Methodology

A descriptive cross sectional study was conducted at Islamabad Dental Hospital, Bhara

Kahu, Islamabad over the period of 6 months. Convenient sampling was used to include the participants of 18-60 years of age irrespective of gender reporting to hospital. Individuals above 60 years and below 18 years of age and debilitated or disabled patients were also excluded. A WHO calculator was used to estimate the sample size at the confidence interval of 95% and power of 80. Sample size calculated was 260. After informed consent, a face to face interview was conducted with the enrolled participants. Data was recorded in a study proforma which consist of patient demographics along with close ended questions with 3 options; "yes", "no", or "I don't know". Performa encoded and data transferred to SPSS version 22 for analysis.

A descriptive analysis was done to calculate the frequency and percentages of the participants who believed on dental myths. Chi Square test of association was used to compare the myths according to gender and education level.

The Ethical approval was obtained from Institutional Review Board of Islamabad Medical & Dental College, Bhara Kahu, Islamabad.

Results

A total of 260 participants i.e. 142 (54.6%) males and 118 (45.4%) females with the mean age of 35.59 ± 13.12 years were enrolled in the study. Among enrolled participants, 48% were under matric and only 3% were of postgraduate level shown in Figure.

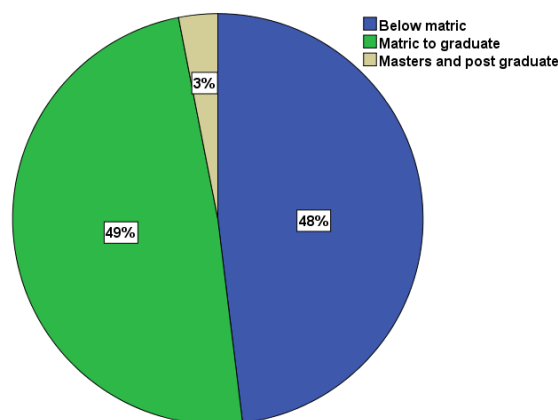


Figure: Level of education among participants.

The enrolled participants in the past had different experience for dental treatment e.g. filling, extraction, scaling and other dental treatments (Orthodontic, Jaw surgeries, root canal treatment, crowing, implants) as shown in Table-1.

Table 1: History of dental treatment of participants.

Past Dental Treatment	Frequency	Percent
Dental Filling	Yes 126	48.5
	No 134	51.5
Dental Extractions	Yes 121	46.5
	No 139	53.5
Dental Scaling	Yes 150	57.7
	No 110	42.3
Other dental treatments	Yes 32	12.3
	No 228	87.7

There are different kinds of myths related to dental extractions. Some myths are related to pre extractions and some are related to during or post extractions. A high percentage (23.8%) of enrolled participants, believed that dentist choose dental extractions as their first treatment choice and 13.1% were undeceive. Participants who believed that dental extraction can lead to hepatitis B or C were 28.8% and 29.6% didn't know about it. Many participants (45%) didn't know, whether dental extractions can be done in pregnancy or not. For myths related to requirement of wisdom teeth extractions 47.3% had no clue about it.

A very high percentage of participants (70.8%) believed that dental extractions are always painful and 21.5% believed that extracted teeth cannot be replaced. Participants who thought that dental extraction can cause weakening of eyesight were 38.5% and who thought that single tooth extraction can lead to deterioration of entire dentition were 26.2%. Participants (51.9%) believed that smoking and drinking do not harm healing after dental extractions. Burial of extracted tooth were not believed by 68.1%. Stratification of participants according to gender is shown in Table-2.

Myths and beliefs of the participants were also stratified according to their education levels as shown in Table-3. Statistically significant difference was found in many myths and beliefs among participants according to their education level.

Discussion

One of the main reason for not seeking health care generally and dental care specially are because of the beliefs in myths and misconceptions in the society. Understanding these myths and misconceptions is very important for both patients and health care providers to ensure delivery of good rather best health care. Even the availability of high standard health care cannot be beneficial for those who believe in myths and misconceptions.¹⁴

Table 2: Belief of participants regarding extractions myths (gender comparison).

Questions	Gender	Freq. (%)	p value
Dentists opt for dental extractions as their first treatment option	Yes	M 31 F 31	62 (23.8)
	No	M 95 F 69	164 (63.1)
	I don't Know	M 16 F 18	34 (13.1)
	Yes	M 41 F 34	75 (28.8)
	No	M 65 F 43	108 (41.5)
	I don't Know	M 36 F 41	77 (29.6)
Dental extractions can lead hepatitis B/C	Yes	M 13 F 21	34 (13.1)
	No	M 57 F 52	109 (41.9)
	I don't Know	M 72 F 45	117 (45.0)
	Yes	M 22 F 9	31 (11.9)
	No	M 60 F 46	106 (40.8)
	I don't Know	M 60 F 63	123 (47.3)
All wisdom teeth have to be extracted	Yes	M 87 F 97	184 (70.8)
	No	M 52 F 18	70 (26.9)
	I don't Know	M 3 F 3	6 (2.3)
	Yes	M 27 F 29	56 (21.5)
	No	M 109 F 87	196 (75.4)
	I don't Know	M 6 F 2	8 (3.1)
Extracted teeth cannot be replaced	Yes	M 46 F 54	100 (38.5)
	No	M 69 F 45	114 (43.8)
	I don't Know	M 27 F 19	46 (17.7)
	Yes	M 29 F 39	68 (26.2)
	No	M 61 F 52	113 (43.5)
	I don't Know	M 52 F 27	79 (30.4)
Extraction of one tooth deteriorates the entire dentition	Yes	M 22 F 22	44 (16.9)
	No	M 96 F 81	177 (68.1)
	I don't Know	M 24 F 15	39 (15)
	Yes	M 72 F 63	135 (51.9)
	No	M 44 F 21	65 (25)
	I don't Know	M 26 F 34	60 (23.1)
Teeth should be buried after extraction	Yes	M 72 F 63	135 (51.9)
	No	M 44 F 21	65 (25)
	I don't Know	M 26 F 34	60 (23.1)
	Yes	M 72 F 63	135 (51.9)
	No	M 44 F 21	65 (25)
	I don't Know	M 26 F 34	60 (23.1)
Smoking and drinking do not cause harm after extraction	Yes	M 72 F 63	135 (51.9)
	No	M 44 F 21	65 (25)
	I don't Know	M 26 F 34	60 (23.1)
	Yes	M 72 F 63	135 (51.9)
	No	M 44 F 21	65 (25)
	I don't Know	M 26 F 34	60 (23.1)

Table 3: Belief of participants regarding extractions myths at different educational level.

Questions	Education Level	Yes	NO	I don't Know	Total Frequency	p value
Dentists opt for dental extractions as their first treatment option	Below Matric	38	62	25	125	.000
	Matric to Graduate	24	95	8	127	
	Masters and Above	0	7	1	8	
Dental extractions can lead hepatitis B/C	Below Matric	23	46	56	125	.000
	Matric to Graduate	44	62	21	127	
	Masters and Above	8	0	0	8	
Dental extractions can be done during pregnancy	Below Matric	20	50	55	125	.304
	Matric to Graduate	14	57	56	127	
	Masters and Above	0	2	6	8	
All wisdom teeth have to be extracted	Below Matric	21	40	64	125	.002
	Matric to Graduate	10	65	52	127	
	Masters and Above	0	1	7	8	
Extractions are always painful	Below Matric	89	35	1	125	.555
	Matric to Graduate	89	33	5	127	
	Masters and Above	6	2	0	8	
Extracted teeth cannot be replaced	Below Matric	41	82	2	125	.000
	Matric to Graduate	15	106	6	127	
	Masters and Above	0	8	0	8	
Dental extractions can lead to weakening of eyesight	Below Matric	64	42	19	125	.001
	Matric to Graduate	34	66	27	127	
	Masters and Above	2	6	0	8	
Extraction of one tooth deteriorates the entire dentition	Below Matric	36	61	28	125	.083
	Matric to Graduate	29	50	48	127	
	Masters and Above	3	2	3	8	
Teeth should be buried after extraction	Below Matric	32	69	24	125	.000
	Matric to Graduate	12	100	15	127	
	Masters and Above	0	8	0	8	
Smoking and drinking do not cause harm after extraction	Below Matric	52	43	30	125	.003
	Matric to Graduate	76	22	29	127	
	Masters and Above	7	0	1	8	

Present study was conducted to evaluate the frequency and pattern of myths prevailing in the society regarding dental extractions. In current study, 23.8% participants believed, first treatment option was extraction by dentists, whereas 28.8% believed that dental extractions can lead to hepatitis B & C infection. Mass media campaign regarding the spread of hepatitis in our society which heightened the dentist profession can be a reason for the existence and survival of this myth. Tooth extractions was also found to be risk factor in the transmission of HBV and HCV infections.¹⁵ Nasir et.al. reported that 22.3% of the respondents believed spread of hepatitis B & C can be by visiting dentists.¹⁶ Other studies showed no association between invasive oral surgical procedures like dental extractions and spread of HBV infection.¹⁷⁻²¹ A statistically significant difference was present among different educational level of enrolled participants. Raina and colleagues also reported decrease in myth believing regarding dentistry with the increase in education level.²¹

A very high percentage (45%) of participant had no idea about the extractions of teeth during pregnancy whereas 41.9% believed that dental extraction can't be done during pregnancy. A study elsewhere also reported by 48.4% participants, the avoidance of dental procedures during pregnancy.²¹

No difference was found among gender regarding the extraction of all wisdom molars, however statistical difference ($p = 0.002$) was found among different educational levels on the same issue. Another study reported, 44.8% believed wisdom teeth are related to human intelligence and should be retained.²¹

A very high percentage (70.8%) of participant believed that dental extraction was always painful. Females were stronger believer of this myth as compared to males but no difference was found among different educational groups. A study also reported that 41.3% believed, dental procedures were painful.²² Raina and colleagues in their study reported, 54.4% were of view dental procedures are always painful.²¹

A lower percentage (16.9%) of participant believed that extracted teeth should be buried as compared to study which reported to be 44.8%.²¹ Many people as 21.5% still believed that extracted teeth can't be replaced, though it has not been elaborated much on this concept, but a variety of materials have been used to make the replica of teeth in the history of mankind. Animal teeth, pieces of bones and wood were used in different forms to replace the missing or extracted teeth since ancient times.²

There are many other myths which prevails in society since long which include loss or weakening of eye sight with extraction of upper teeth and deteriorates of entire dentition with extraction of one tooth, participants believing on this were 38.5% and 26.2% respectively.^{16,23} Myths related to ocular complications with dental extractions were extensively reported and ranges from 40 to 65%.^{21,23-26}

Many participants (51.9%) in the current study, believed, that smoking and drinking do not cause harm after dental extraction. Many studies reported more complications during healing of dental extraction sockets in smokers as compared to nonsmokers.²⁶⁻²⁹ A study also reported that there was no significant difference in development of dry socket between smokers and non-smokers groups.³⁰

This study was conducted in a hospital setting as the questionnaire was filled by the patients or their attendees visiting the hospital. Present study recommends to improve dental health education through campaign on mass media. Community dentistry have to play role in educating the people through awareness programs conducted in the society.

Present study concluded that still a very high percentage of myths regarding dental extractions were found in society. Less educated people were more believer of these myths. Gender wise difference was also noted in the current study and female were found to be more believer of myths.

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