

## Original Article

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## Assessment of Myths Regarding Dental Scaling among Patients Visiting Dental Hospital in Larkana

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### ABSTRACT

#### Objective:

"This study aims to assess the prevalence and impact of myths regarding dental scaling among patients visiting dental hospital in Larkana.

#### Materials and Methods

This study was conducted on patients visiting outpatients (OPD) of periodontology department at Bibi Aseefa dental college (BADC) Larkana. A self-structured, close-ended questionnaire was distributed among patients in OPD after obtaining written informed consent. Data were collected from 150 individuals who were selected through non-probability convenient sampling technique. Questionnaire contains two parts. The first part addressed the aspects like Socio demographic characteristics such as age and gender. In the second part of the questionnaire, subjects were asked about i.e. ever undergone scaling treatment, reasons for getting scaling treatment, myths regarding dental scaling and scared before undergoing dental scaling treatment. Data analysis was done using SPSS version-16.

#### Results

This study was done among 150 participants. The mean age of the participants is  $35 \pm 14.44$  years. There were (54%) males and (46%) females. A portion of the participants hold misconceptions about the potential risks associated with scaling. Following myths and fears discourages the participants from pursuing the dental scaling procedure. About, 46% believe that dental scaling can lead to tooth mobility, while 55% worry that the procedure might cause increased tooth sensitivity and pain. Additionally, 53% expressed concerns that scaling could result in larger gaps between their teeth. 46% participants were scared before getting dental scaling while 54% were not scared before getting dental scaling.

#### Conclusion

Myths and taboos regarding dental scaling are found prevalent not only among illiterate individuals but also within the educated population. Many myths and misconceptions were identified among the patients regarding dental scaling. The most commonly held belief in this study was that scaling causes teeth to loosen.

**Keywords:** Cultural beliefs, Scaling, Myths.

## INTRODUCTION

Myth is a Greek word "mythos" meaning thought, the story of unknown origin, or a speech. (1). Most of humans' beliefs, or at least most of their general beliefs, are acquired through communication. In fact, most of the misbeliefs are culturally transmitted rather than individual mistakes, distortions, or delusions [2]. These prevalent myths in a population are mainly backed by a variety of reasons like poor education, religious beliefs and socio-cultural misconceptions. Most of these false perceptions are common among people of less developed countries, Pakistan being among them, has a literacy rate of 43% whereas 64% of its population resides in rural areas where fake practitioners or quacks are more reputed than trained and qualified medical personnel (3). Myths take a very natural unknown origin in every community. In our country, traditional belief of non-scientific base and untrained unqualified dental professionals (quacks) are the main origin of myth [4]. Lots of myths along with dentistry related, which are considered as not to be false often, make people hesitate [5]. In dentistry, such type of beliefs leads to numerous misconceptions among patients, which serve as a major barrier in accessing oral health care services, with scaling being one of them.

Scaling is a clinical procedure that removes calculus and plaque from the teeth as well as roots, which is done through the help of specific hand instruments (scalers) or ultrasonic devices (6). Misconceptions about dental scaling have caused significant fear among the general public, preventing them from seeking oral health care treatments such as scaling.

(7-9). people have misconceptions for scaling such as increased tooth mobility, sensitivity, spacing in teeth and teeth appearing longer, scaling breaks teeth into parts etc. this results in accumulation of plaque and calculus around the teeth and gums, which result in gingivitis. If left untreated, it can extend down towards periodontal ligament (PDL) and develop into a more severe condition known as periodontitis, which signs as pain and mobility in teeth with bleeding gums (10). Therefore, through scaling and proper oral hygiene practices, further tooth decay can be prevented, and the impact of systemic diseases on oral tissues can be reduced [11].

Lack of education and awareness accompanied by socio-cultural factors and traditional beliefs lead to the development of mendacious myths and perceptions [12]. Consequently, this study would

offer a thorough examination of the traditional myths associated with it. Also, the current study will provide a foundation for enhanced educational efforts by identifying common worries and misunderstandings, encouraging patients to seek early and consistent periodontal care.

People in Larkana hesitate in getting treatment and are discouraged from getting regular preventative treatment because of these misconceptions about scaling, which causes periodontal diseases to develop, which over time, can worsen and result in more serious oral health issues. Therefore, it is crucial to address and get rid of these myths regarding dental scaling so, this research will help a long way to overcome the knowledge gap and attempts to clear up misconceptions about the scaling method by raising public awareness of dental health concerns.

## MATERIALS AND METHODS

Ethical clearance was obtained from the Institutional Review Board of the University and individual informed consent was taken. This descriptive cross-sectional study was conducted on patients visiting outpatients (OPD) of periodontology department at Bibi Aseefa dental college (BADC) Larkana. A self-structured, close-ended questionnaire paper was distributed among patients in OPD after obtaining written informed consent. The purpose of the study was explained and participants were asked for their cooperation to fill the form.

Data were collected from 150 individuals who were selected through non-probability convenient sampling technique. Study duration was 2 months.

The inclusion criteria were individuals of either gender, aged between 10 and 60 years, who were attending the outpatient department (OPD) for treatment or consultations.

Subjects who were unwilling to participate, as well as those in critical or emergency conditions, were excluded from the study.

Questionnaire contain two parts. The first part addressed the following aspects: Socio demographic characteristics such as age and gender. In the second part of the questionnaire, subjects were asked about i.e. ever undergone scaling treatment, reasons for getting scaling treatment, myths regarding dental scaling and scared before undergoing dental scaling treatment.

Data Analysis:

We used SPSS version 16 to dissect our data-set, employing descriptive statistics to uncover key trends. For categorical variables like gender and questionnaire-based responses (e.g., history of scaling treatment, motivations, and apprehensions), we calculated frequencies and percentages to paint a comprehensive picture. Meanwhile, continuous variables like age were summarized using means and standard deviations, of our sample."

## RESULTS

This study was done among 150 participants. The population's age distribution ranges from 10 to 60 years, with the highest recorded age being 60 and the lowest being 10. The mean age of the participants is  $35 \pm 14.44$  years. There were (54%) males and (46%) females (Table-1).

Out of a total of 150 participants, 33% reported having undergone scaling treatment previously, while 67% stated that this was their first time undergoing scaling treatment and had never undergone scaling treatment before. (Fig. 1).

Of these participants various reasons motivated them to undergo scaling treatment which is described in detail (table 2).

A portion of the participants hold misconceptions about the potential risks associated with scaling. Following myths and fears discourages the participants from pursuing the dental scaling procedure. About, 46% believe that dental scaling can lead to tooth mobility, while 55% worry that the procedure might cause increased tooth sensitivity and pain. Additionally, 53% expressed concerns that scaling could result in larger gaps between their teeth. A further 5% mentioned hearing claims that one of the common side effects of the procedure is the loss of tooth surface or an increase in surface roughness. Moreover, 51% were concerned that dental scaling could weaken their teeth. These fears based on misconceptions or unverified information, play a significant role in deterring individuals from seeking this beneficial dental treatment. (Table:3)

The figure:2 shows that 46% participants were scared before getting dental scaling while 54% were not scared before getting dental scaling. In addition, A large majority of the research participants, specifically 85%, stated that they would recommend dental scaling to others, while 15% indicated that they would not recommend it. This indicates a positive perception of the procedure, with more than half of those surveyed showing confidence in its benefits. The willingness to recommend dental

scaling suggests that many participants found value in the treatment, likely due to its effectiveness in improving oral health and hygiene. This endorsement may also reflect the participants' satisfaction with the results they experienced, further reinforcing the procedure's overall effectiveness and appeal. (fig:3)

**Table 1: Socio-demographic characteristics**

Characteristics	Frequency	Percentage
<b>Gender</b>		
Male	69	46
Female	81	54
<b>Mean Age</b>		$35 \pm 14.44$ years

**Table 2: Descriptive statistics of participants regarding their reasons for getting scaling treatment**

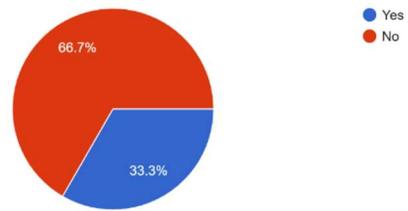
Reasons	Frequency & Percentage
Gum Disease	53(35.3%)
Tooth Sensitivity	55(36.7%)
Preventive Care	45(30%)
Plaque and Tartar Buildup:	46(30.7%)
Bad Breath (Halitosis)	51(34%)

**Table 3: Descriptive statistics regarding the fears/myths that prevent participants from undergoing the scaling procedure**

Fears/Myths	Frequency & Percentage

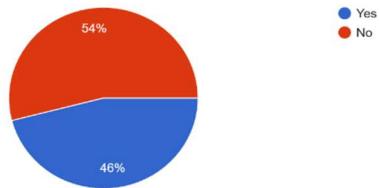
Increases gap between teeth	(79)52.7%
Increases sensitivity and pain	(83)55.3%
Post scaling tooth surfaces loss/roughness	(7)4.7%
Tooth mobility	(69)46%
Tooth weakening	(77)51.3%

Had ever undergone scaling treatment.  
150 responses



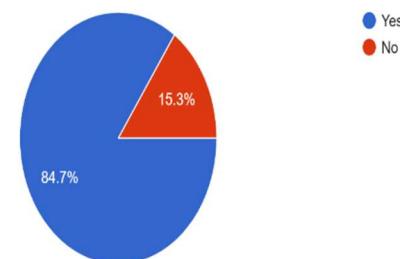
**Figure 1: Descriptive statistics of participants who had ever undergone scaling treatment**

Scared before Dental scaling  
150 responses



**Figure 2: Descriptive statistics of participants who were scared before undergoing dental scaling treatment**

Recommendation of dental scaling to others  
150 responses



**Figure 3: Descriptive statistics of participants who would recommend scaling to others**

## DISCUSSION

Despite significant advancements in the field of dentistry, although dental scaling a preventive treatment, patients still hold unwarranted beliefs about dental health, largely due to rumors and information passed through word of mouth and remain unaware of essential dental facts. Hence these misconceptions affect the patient's behavior in seeking dental scaling and hinder timely treatment of periodontal diseases and the prevention of such conditions, which can be effectively managed through dental scaling [2,5]. This study aimed to understand patients' perceptions regarding dental scaling and to explore their false belief and fear.

Results of our research illustrates that 66.7% participants had never undergone dental scaling while only 33.3% members had ever undergone dental scaling previously. A comparative report was directed by Samad A et al. in Khyber College of Dentistry. [13] This might be because of participants may not recognize the necessity of undergoing dental scaling. They might feel that their oral health is adequate or that regular brushing and flossing are sufficient to maintain good hygiene. Another reason could be fear of experiencing the pain and sensitivity during or after the procedure which may discourage them from seeking dental scaling.

Most participants (53%) had scaling done to reduce bleeding gums, while 30% did so based on their dentist's advice for preventive care, and 31% sought it for removal of plaque to whiten their teeth. While Similar results were found in a study conducted by Zara B et al [14]. It's evident that peoples typically not visit a dentist unless they experience a problem with their teeth. This suggests that many people only

seek dental care when they are facing specific issues like bleeding and pain.

In present study 46% participants thought that increases mobility of teeth was the reason which hinders them from receiving the treatment. Our findings are contradictory with the study conducted by Hashim Z et al. [15] in which 33% of the participants believed same reason as barrier. However, the results of our study are somewhat accordance with study conducted by Sharma revealed 55% [16]. These results were also quite different from the study done by Ain TS et al [17] where 77% people believed in this reason. The variations in the study's findings may be due to misconceptions, arising from the circulation of exaggerated or inaccurate information by individuals who have had negative dental experiences in the past.

In our study 53% participants feared that the gap between teeth could well be increased after scaling. Findings of our study are in somewhat accordance with results found in a study by Farooq H et al (59%) [18]. The misconception may arise due to, the gap that forms in between the teeth after calculus is removed from the interdental spaces, leading to misunderstandings among people.

According to 55% of our study participants, scaling procedure can result in increased sensitivity and pain. which is contradictory with the results (10%) described by Langrial RZ et al [19]. Such type of myths generally arises, when untrained and unqualified dental practitioners (quacks) perform such procedures. When performed by a skilled dental professional, should not cause significant pain or sensitivity. Hence any pain or sensitivity experienced after a scaling procedure is usually short-term.

In the current study, 5% of participants mentioned that one of the main concerns after dental scaling procedure is the loss of tooth surfaces or increased surface roughness. Similar results were found in a study conducted by Langrial RZ et al [19]. This misconception may arise from the manual scaling method availed by many patients, as it tends to cause greater root surface roughness compared to ultrasonic scaling [20].

In the current study, participants were asked regarding recommendations for dental scaling to others. Out of 150 members, 85% (127) members said that they would recommend dental scaling to others. The following findings are somehow in accordance with the study conducted by B Zara et al. [14] Despite of their fear of pain regarding scaling and no necessity of scaling, our study participants opine recommendation of scaling to others because of its gainful impacts on oral health such as in preventing gum disease, reducing plaque buildup, and improving overall dental hygiene, they believe it is a valuable procedure that can help maintain long-term oral health and prevent more serious dental issues in the future.

## CONCLUSION

Myths and taboos regarding dental scaling are found prevalent not only among illiterate individuals but also within the educated population. Many myths and misconceptions were identified among the patients regarding dental scaling. The most commonly held belief in this study was that scaling causes teeth to loosen. Many participants also thought that scaling creates gaps between teeth. Additionally, gum bleeding and tooth sensitivity were considered the main risks associated with scaling.

There is a need to ascertain the current prevalence of these cultural taboos and beliefs regarding dentistry. It is essential to address and eliminate the myths prevalent in the community by promoting health awareness.

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