

# The impact of dentine hypersensitivity on patient's quality of life as perceived by dentists

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## Abstract

**Introduction:** Oral health related quality of life is an area with multidimensional construct. It shows people ease when eating, sleeping and involving in social interaction and their satisfaction with regard to their oral health.

**Material and Methods:** In this study, dentists were asked a number of questions regarding dentine hypersensitivity and its impact on the quality of life of the patients. A total of 100 questionnaires with close ended questions were sent to dentists working in the teaching hospitals of Lahore Medical and Dental College and de'Montmorency College of dentistry. A total of 100 out of 100 dentists' response rate was observed with 55% female and 45% male ratio was seen. The data was analysed by using SPSS 22.0. Frequencies were calculated and were represented in the form of bar charts.

**Results:** 87% of the dentists reported that dentine hypersensitivity has an effect on the quality of life of the patient. Moreover, 13% of the dentists reported that dentine hypersensitivity has a severe impact on the quality of life of the patient. While 67% observed it to be moderate and 17% reported it to be having a mild effect on the quality of life of the patient.

**Conclusions:** This study shows that dentists have a good perception regarding the dentine hypersensitivity and its impact on the quality of life of the patient. However, there is a need for increased awareness and development of the guidelines for proper evaluation and management.

**Keywords:** Quality of life; dentine hypersensitivity; dentist

## Introduction

Dentine hypersensitivity is determined by a short and sharp pain that results in the presence of thermal, chemical, evaporative and tactile osmotic stimuli. Sensitivity stops after the removal of these stimuli. Dentine hypersensitivity is an oral complaint dealt at clinical dental practices.<sup>1</sup> Patients with sensitive teeth have impaired oral health related quality of life.<sup>2</sup> At the same time dentine hypersensitivity affects the quality of the patient's life by hampering daily activities of patients such as eating and drinking.<sup>3</sup> Dentine hypersensitivity disturbs

the patients during eating, drinking, breathing and also tooth brushing. These restrictions have an important effect on the patient's quality of life.<sup>4</sup> Oral health related quality of life is a relatively new and a fast growing concept in dentistry.<sup>5</sup> The oral health related quality of life is a multidimensional concept.<sup>6</sup> Hence the aim of this research was to determine the impact of hypersensitivity on the quality of life as perceived by dentists.

## Material and Methods

A total of 100 questionnaires with closed ended questions were sent to dentists working in the teaching hospitals of Lahore Medical and Dental College and de'Montmorency College of dentistry. A written consent was taken from the dentists and all the information of the dentists were kept confidential. A total of 100 out of 100 dentists' response rate was observed with 55% female and 45% male ratio was seen (Table I). The data was analysed by using

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SPSS 22.0. Frequencies were calculated and were represented in the form of bar charts. They were also distributed among some private dental practitioners practicing in the region but the major contribution was taken from teaching hospitals. The dentists were categorised according to their gender, age group and hospital practice (Table I). Also they were asked questions about dentine hypersensitivity and its impact on the quality of life of the patients (Table III). Personal information of the dentists was also taken (Table II).

**Table I: Demographic Profile**

Category		Frequency/Number
Gender	Male	45
	Female	55
Age group	<30	76
	30-35	17
	35-40	2
	40-45	3
	>45	2
Hospital Practice	Hospital	85
	Private practice	4
	Both	11

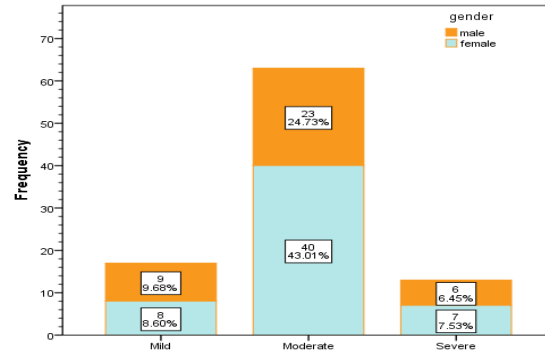
**Table II: Personal information of the dentists.**

1. Are you a general dental practitioner?
2. Please give your year of graduation?
3. Please indicate your gender?
4. Are you in a teaching hospital or in private practice or in both?

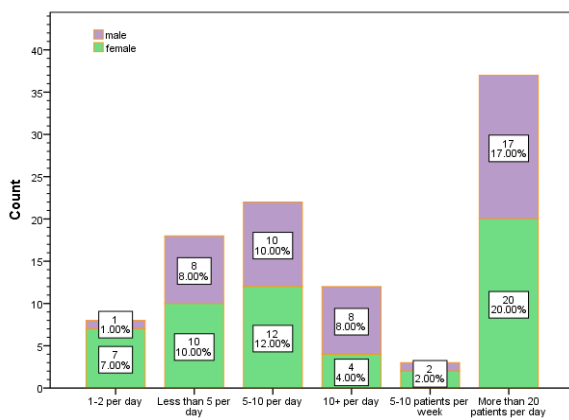
**Table III: Questionnaire for dentists Results**

1. How many dentate patients do you see in your practice or hospital per day?
  - a. 1-2 per day
  - b. Less than 5 per day
  - c. 5-10 per day
  - d. 10+ per day
  - e. 5-10 patients per week
  - f. More than 20 patients per day
2. Have you seen one or more patients reporting tooth sensitivity in the last 2-4 weeks?
  - a. Yes
  - b. No
3. What is the percentage of patients who consider ( or where you consider ) that their dentine hypersensitivity was a serious problem?
  - a. 0%
  - b. 1%
  - c. 3%
  - d. 5%
  - e. 10%
  - f. 15%
  - g. 22%
  - h. 50%
  - i. 75%
  - j. 100%
  - k. Not known
4. In your opinion do you consider this condition to have a major impact on the quality of life of the patient?
  - l. Yes
  - m. No
  - n. Not known
5. If yes, would you consider this impact:
  - o. Mild
  - p. Moderate
  - q. Severe
6. How frequently on average do you get questions about this condition

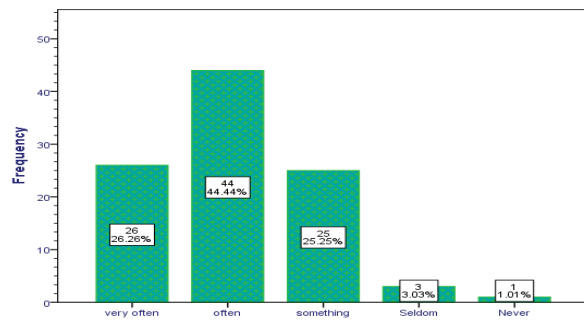
from patients?  
 r. Very often  
 s. Often  
 t. Sometimes  
 u. Seldom  
 v. Never



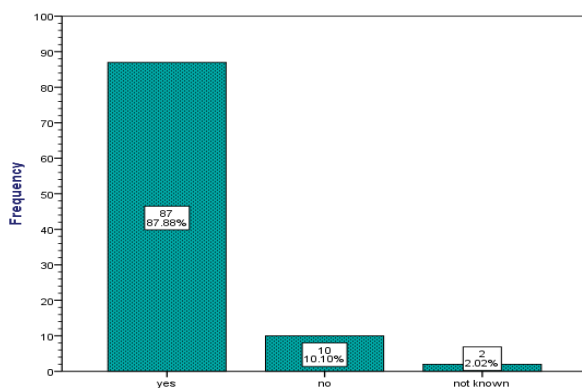
**Figure 3: Impact of hypersensitivity on the quality of life of the patient**



**Figure 1: Number of dentate patients seen by male/female dentists in hospital practice or private clinic**



**Figure 4: Questions asked by patients about dentine hypersensitivity**



**Figure 2: Does dentine hypersensitivity has an effect on the quality of life of the patient**

## Discussions

A total of 55% of the female dentists were part of this study and male percentage was 45%. Here it should be noted that the study was conducted majorly in a teaching hospital with a bulk of 85% contributing towards the study while 11% in private practice and 4% in both. (Table I). From studies dealing with the occurrence of tooth hypersensitivity it can be safely said that this condition occurs in a frequent manner. The retention of more teeth in older adults due to better prevention and intervention can lead to an increase in the occurrence of the cervical dentin hypersensitivity and can affect the quality of life of the patient.<sup>7</sup> The number of dentate patients seen by male and female dentists are represented in (Figure 1) which shows a maximum number of 37 and minimum of 8 dentate patients seen by male/ female dentists. According to the results in the

current study frequency of 22% among the patients reported about dentine hypersensitivity (Table III).

This study can be compared with, studies carried on dentine hypersensitivity internationally which show a frequency of 32% in Taiwan(R)<sup>8</sup>, China<sup>9</sup> (34.1%), Thailand<sup>10</sup> (30.7%), Greece<sup>11</sup> (21.3%-38.6%). In contrast these values are greater than some studies conducted in Australia<sup>12</sup> (9.1%), Turkey<sup>13</sup> (5.3%) and Northwest United States<sup>14</sup>(12.3%). Similarly, our results could be compared with a study conducted nationally in Karachi at Dr Ishrat-ul-Ebad Khan Institute of Oral Health and Sciences, in which 36.4% of the patients reported about dentine hypersensitivity.<sup>15</sup> Moreover, some studies showed higher frequency of dentine hypersensitivity such as in India<sup>16,17</sup> (55% and 42.5%), Nigeria<sup>18,19</sup> (52.8% and 63.3%). These higher values are due to neglected oral health in these countries.<sup>20</sup>

This study refers to patients seeking care for their condition and cannot be generalized to individuals not seeking care. In our study 87.8% of the dentists agreed to the fact that dentine hypersensitivity has a major effect on the quality of life of the patients (Figure 2). Also the impact of hypersensitivity on quality of life of patient was asked which showed mild 17% moderate 63% and severe 13% (Figure 3). It can be compared with another study carried out in the United Kingdom in which it was concluded that 71.8% of dentist reported that dentine hypersensitivity has a major effect on the life of the patients.<sup>21</sup> Hence it could be said that patients reporting with dentine hypersensitivity have an effect on daily quality of life which includes eating, drinking breathing and oral hygiene.

## Conclusions

Oral health related quality of life brings new innovation to the clinical care and research. It

brings importance to the patient as a whole instead of just oral cavity. Oral health related quality of life gives an opportunity on how a patient's oral health effects his/her well being and quality of life at a certain point of time. Thus different oral complaints could be compared directly.

It was concluded that majority of the dentists agreed to the fact that oral health related quality of life has a major impact on the quality of life of the patient. We also got information about dentine hypersensitivity awareness and the percentage of patient reporting about dentine hypersensitivity. Need of the hour is to create awareness about dentine hypersensitivity and its effect on the quality of life of the patient by carrying more studies on oral health related quality of life.

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