



Frequency of Chief Complaints and 'Felt Need' of Patients Visiting Department of Oral Medicine and Radiology at Tertiary Care Hospital

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Introduction

Oral health is an integral part of overall health and is often referred to as 'window to ones' health'. Oral health and systemic health hold equal importance for a healthy life, so they need to be given same importance while aiming for overall health¹. This however does not hold true in our country's context. Oral health is very much neglected and patients visit hospital only in late stages of diseases. In general, patients do not seek treatment until the symptoms have become unbearable¹. The first step in attaining optimal oral health is identifying the problem, diagnosing the condition and planning a

Abstract

Introduction: Oral health is a neglected but important part of overall health. This study was designed to comprehend the most commonly reported chief complaints and felt need of patient visiting a dental hospital to assess the most common cause of hospital visit and level of oral health awareness.

Methods: Patients from the age of 16 years old visiting to Oral Medicine and Radiology Department of KIST Medical College and Teaching Hospital in March to August, 2022 were included in this descriptive cross-sectional study. Case history was taken and clinical examination was done for all the patients. Chief complaint of each of the patient and felt needs were recorded in the proforma along with the demographic details.

Results: Among 600 patients, 282 (47%) male and 318 female (53%) participated in the study. The most common chief complaints observed were tooth pain (n=123; 24.5%), decayed tooth (n= 102; 17%) and gum swelling (n=65; 10.8%). Interestingly, top three felt needs were noted as filling (n=140; 23%), extraction (n= 130; 22%) and scaling (n=111; 19%) of teeth. In addition, slight differences in most common chief complaints and felt needs were recorded on the basis of gender.

Conclusion: In summary, tooth pain, decayed tooth and gum swelling were common chief complaints among the patients. Filling, extraction and scaling were found to be most preferred treatment by the patients based on their felt need.

Keywords: Oral health, Chief complaint, Felt need

treatment².

The chief complaint is defined as a statement provided by a patient during history taking that describes the reason for the hospital visit. Chief complaint is recorded in the patient's own words for exact interpretation of their problem^{2,3}the chief complaint which make them seeking dental treatment, and the final diagnosis of their problems. **Materials and Methods:** 760 patients attended to oral diagnosis were examined. The patients age, sex & marital state were recorded & the reason for seeking dental treatment. **Results:** The research revealed that a total of 760 patients presented to the

oral diagnosis clinic in a period of about one year. Of them 41.18% were males and the remaining 58.82% were females. The single patient percentage was 55.26%, while percentage of married patients was 44.74%. The predominant age was 20-29 years age group (28.81%). The American Dental Association (ADA) recognizes the patient's chief complaint as an important step for recognizing patient's problem and providing the needed oral health care treatment⁴.

'Need' as proposed by Davis is 'a subjective feeling state that initiates the process of choosing among medical resources'⁵ According to definitions of need by Bradshaw, 'felt need' is the need associated with want or the desired treatment choice of the patient⁶. The felt need of the patient directly reflects the level of awareness of oral health and patient education regarding various treatment modalities. In spite of the effort put into the dental and oral health services, patients are reluctant for conservative and preventive treatments and dental care is being utilized by very few⁷.

The objective of this study was to identify commonly reported chief complaint and its association with felt need of patients visiting to the Department of Oral Medicine and Radiology, KIST Medical College and Teaching Hospital. The findings would be beneficial to identify the prevalent problem in oral health, take measures to prevent it from progressing in to major symptoms and provide oral health awareness.

Methods

This cross-sectional study was conducted in the Department of Oral Medicine and Radiology, KIST Medical College and Teaching Hospital from March to August, 2022. Study was proceeded after obtaining ethical approval from KIST Institutional Review Committee (KIST-IRC reference no. 2079/80/68). The sample size of the study was determined using convenience sampling method. The participant's consent was taken and filled up in the form before examination.

Participants willing to acknowledge the informed consent form and above 16 years of age were included in the study. Patients less than 16 years of age, patients who were pregnant, patients who came for regular dental check-up without any complaints, seriously ill and patients who refused to acknowledge the informed consent form were not included in the study.

Case history was taken and clinical examination was done of all the patients included in the study. Chief complaint of each of the patient and felt needs were recorded in the proforma along with the demographic details.

Treatment plan was made and patient counselling was done accordingly.

Simple random sampling technique was used. Sample size calculation was calculated as follows:

$$\text{Sample size} = Z^2 p (1-p)/c^2$$

Where:

Z=Z value (number of standard deviations an observation is away from the mean, e.g. 1.96 for 95% confidence level),

p= percentage, expressed as decimal and

c=confidence interval, expressed as decimal (e.g., 0.03 = ± 3).

Confidence level of 95%, confidence interval of 5 and percentage population of 85% were considered to determine sample size for the survey.

$$\begin{aligned} \text{Sample size} &= (1.96)^2 \times 0.85(1-0.85)/(0.03)^2 \\ &= 534 \end{aligned}$$

The minimum sample size according to the calculations was 534. Thus, sample size of the study was determined 600.

All statistical analyses were conducted using the Statistical Package for Social Sciences (SPSS) software, version 17 (Chicago Inc.). Point estimate was done at a 95% Confidence Interval for frequency and percentages for binary data.

Results

In total, 600 patients visiting the Department of Oral medicine and Radiology were found 282 (47%) male and 318 female (53%), age ranged from 16 years to 86 years. Patients were grouped in six age groups such as i. 16 – 25 years, ii. 26 - 35 years, iii. 36 – 45 years, iv. 46 – 55 years, v. 56 - 65 years, vi. 66 < and found highest number (n=147; 24.7%) of patients at 26 - 35 years age group (Figure 1). Particularly, highest number of female patients were found in age group 16 - 25 years (n=82; 13.7%) whereas highest number of male patients were found in the age group of 26 – 35 years (n=75; 12.5%).

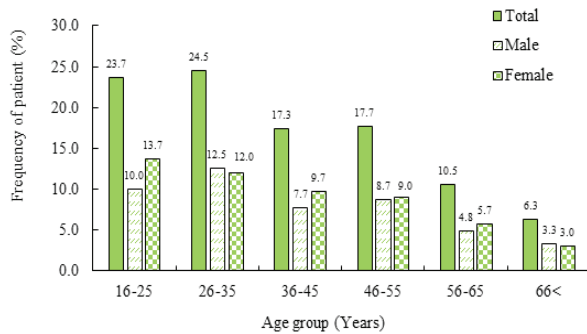


Figure 1. Frequency of total patients based age group and gender.

The frequencies of chief complaints in all patients are demonstrated in Figure 2. The most common chief complaint were tooth pain (n=123; 20.5%) followed with decayed tooth (n= 102; 17%) and gum swelling (n=65; 10.8%). The less common complaints which accounts less than 1% of sample size were retained milk tooth (n= 1; 0.2%), aesthetic concern (n=4; 0.7%) and malocclusion (n= 5; 0.8%). In addition, no patient was noted having complain on tooth replacement during the study.

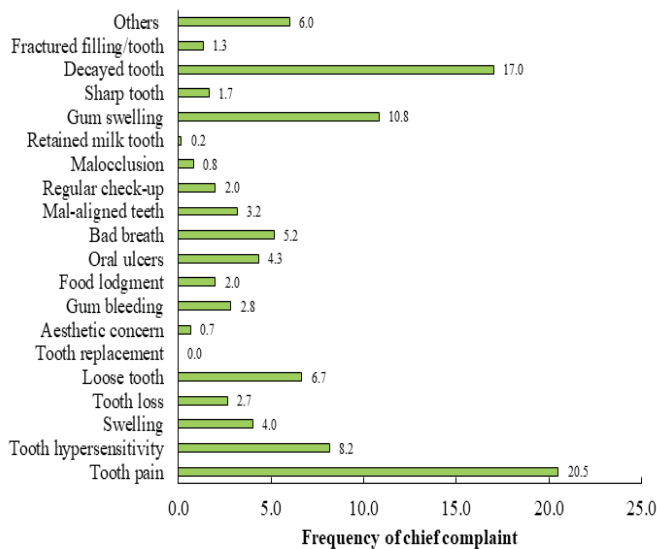


Figure 2. Frequency of chief complaints of patients

The chief complaint on the basis of gender was show in the Table 1. The most common chief complaint 'tooth pain' was found predominant complain in male (n=52; 18.4% out of 282 male patients) and female patients (n=71; 22.3 out of 318 female patients). Interestingly, second highest frequency was noted in 'gum swelling' in male patients (n=38; 13.5%) whereas 'decayed tooth' was noted in female patients (n=71; 22%). The less

common complaints which accounts less than 1% of sample size in male were noted retained milk tooth (n= 1; 0.4%) and aesthetic concern (n=2; 0.7%). Similarly, less common complaints which accounts less than 1% of sample size in female were observed aesthetic concern (n=2; 0.6%) and malocclusion (n= 2; 0.6%). In addition, no female patient was found having complaint 'retained milk tooth' during the study.

Table 1. Statistics of chief complaints of patients

Chief Complain	Gender			
	Male		Female	
	A	B	A	B
Tooth pain	52	18.4	71	22.3
Tooth hypersensitivity	29	10.3	20	6.3
Swelling	8	2.8	16	5.0
Tooth loss	12	4.3	4	1.3
Loose tooth	24	8.5	16	5.0
Tooth replacement	0	0.0	0	0.0
Aesthetic concern	2	0.7	2	0.6
Gum bleeding	9	3.2	8	2.5
Food lodgment	3	1.1	9	2.8
Oral ulcers	8	2.8	18	5.7
Bad breath	18	6.4	13	4.1
Mal-aligned teeth	8	2.8	11	3.5
Regular check-up	7	2.5	5	1.6
Malocclusion	3	1.1	2	0.6
Retained milk tooth	1	0.4	0	0.0
Gum swelling	38	13.5	27	8.5
Sharp tooth	5	1.8	5	1.6
Decayed tooth	32	11.3	70	22.0
Fractured filling/tooth	4	1.4	4	1.3
Others	19	6.7	17	5.3
Total	282	100	318	100

Note: A= Number, B= Frequency

The frequencies of felt need in all patients are demonstrated in Figure 3. The most common felt need were noted filling (n=140; 23%), extraction (n= 130; 22%) and scaling (n=111; 19%). The less common felt need which accounts up to 5% of sample size were found tooth replacement (n=13; 2%), splints (n=20; 3%), antibiotics (n=20; 30%), topical medication (n=24; 4%), root canal treatment (n=27; 4.5%), orthodontic treatment (n=32;

5%), refilling (n=2; 0.3%) and others (n=1; 0.2%).

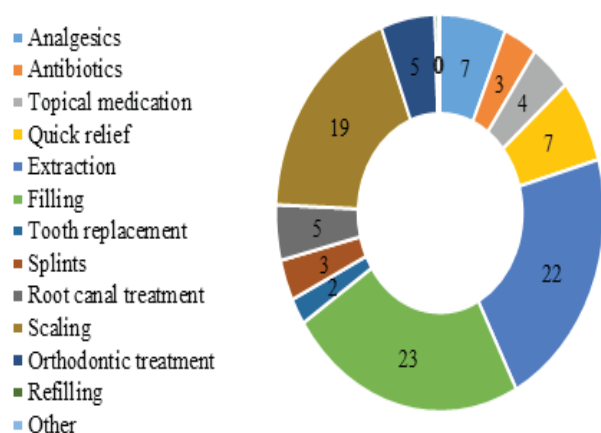


Figure 3. Frequency of felt need of patients.

The felt need on the basis of gender was shown in the Table 2. The most common felt need 'Filling' was found dominant only in female patients (n=84; 26.4% out of 318 female patients). Interestingly, scaling was noted dominant felt need in male patients (n=60, 21.3% out of 282 male patients) whereas filling accounts the second highest position in male patients (n=56; 19.9%). In the female patients, second, third and fourth highest frequency were noted in extraction (n=75; 23.6%), scaling (n=51; 16%) and analgesics (n=23; 7.2%), respectively. Similarly, third and fourth highest frequency in male patients were observed in extraction (n=55; 19.5%) and quick relief (n=23; 8.2%), respectively. The less common felt need which accounts up to 5% of sample size in male were noted antibiotics (n=9; 3.2%), topical medication (n=10; 3.5%), tooth replacement (n=8; 2.8%), splints (n=13; 4.6%), root canal treatment (Splints (n=13; 4.6%), refilling (n=1; 0.4%) and others (n=1; 0.4%). Similarly, less felt need which accounts up to 5% of sample size in female were observed antibiotics (n=11; 3.5%), topical medication (n=14; 4.4%), tooth replacement (n=5; 1.6%), splints (n=7; 2.2%), root canal treatment (n=14; 4.4%), orthodontic treatment (n=15; 4.7%) and refilling (n=1; 0.3%). In addition, no female patient was found other felt need during the study.

Table 2. Statistics of felt need of patients.

Felt need	Gender			
	Male		Female	
	A	B	A	B
Analgesics	16	5.7	23	7.2
Antibiotics	9	3.2	11	3.5
Topical medication	10	3.5	14	4.4

Quick relief	23	8.2	18	5.7
Extraction	55	19.5	75	23.6
Filling	56	19.9	84	26.4
Tooth replacement	8	2.8	5	1.6
Splints	13	4.6	7	2.2
Root canal treatment	13	4.6	14	4.4
Scaling	60	21.3	51	16.0
Orthodontic treatment	17	6.0	15	4.7
Refilling	1	0.4	1	0.3
Other	1	0.4	0	0.0
Total	282	100	318	100

Note: A= Number, B= Frequency

Discussion

This study was intended to identify the most commonly reported chief complaints and felt need among patients visiting Oral Medicine and Radiology Department of KIST Medical College and Teaching Hospital. The most common chief complaint was found tooth pain (20.5%) followed by decayed tooth (17%) and gum swelling (10.8%). The study findings are similar to the study done in India, 2018, where the most common chief complaint recorded among the dental patients was dental pain. This was followed by swelling, mobility and tooth replacement¹. Tooth pain was also noted the most commonly reported problem in a study from Iraq, 2007³ the chief complaint which makes them seek dental treatment, and the final diagnosis of their problems. Materials and Methods: 760 patients attended to oral diagnosis were examined. The patients' age, sex & marital state were recorded & the reason for seeking dental treatment. Results: The research revealed that a total of 760 patients presented to the oral diagnosis clinic in a period of about one year. Of them 41.18% were males and the remaining 58.82% were females. The single patient percentage was 55.26%, while the percentage of married patients was 44.74%. The predominant age was 20-29 years age group (28.81%). The second most common complaint of decayed tooth and gum swelling in patients can be attributed to the poor oral hygiene. In this study, 53% of the patients were found females and males accounted for 43%. The attendance of female patients were also found more in other countries as well^{1,3} the chief complaint which makes them seek dental treatment, and the final diagnosis of their problems. Materials and Methods: 760 patients attended to oral diagnosis were examined. The patients' age, sex & marital state were recorded & the reason

for seeking dental treatment. Results: The research revealed that a total of 760 patients presented to the oral diagnosis clinic in a period of about one year. Of them 41.18% were males and the remaining 58.82% were females. The single patient percentage was 55.26%, while percentage of married patients was 44.74%. The predominant age was 20-29 years age group (28.81%⁸. Concern for oral health and hygiene was found more in females than males. This finding can also be explained as females being more concerned about esthetics.

Only 2% of the patient reported to the department for regular dental checkups. The number of patients visiting without any complaint is remarkably very low. This is quite surprising as the hospital is located merely a kilometer away from ring road, easily accessible and providing all preventive as well as definitive treatment.

Addressing the patients' utmost need is the primary responsibility of a medical professional. It also depends on patients' perception of what needs to be done or what their expectation is regarding treatment⁷ and their disease status⁹

The most common felt need for female was filling (26.4%) followed by extraction (23.6%). Scaling was noted dominant felt need in male patients (21.3%) whereas filling was the second highest treatment choice (19.9%). A study in India revealed that people did not visit the dentist unless they had unbearable symptoms or functional disability because of their belief that dental conditions are not serious or life threatening¹⁰. This is also highlighted by the findings of our study which showed that majority of the patient visited because of tooth pain. On further inquiry, they reported that they knew their tooth were decayed but did not come for examination or treatment earlier. It shows a lapse in basic oral health care services and provision of preventive care¹¹. In a study done in 2021 titled 'Knowledge of Oral Health among the People of Rural Nepal' majority of people (68%) reported that they were aware or heard of oral diseases. This data clearly shows that majority of the people even in rural areas had general knowledge of oral disease¹².

Conclusion

Oral health is an important part of overall health. In this study, tooth pain, decayed tooth and gum swelling are confirmed the most chief complaints from the patients. Similarly, filling, extraction and scaling of tooth were found to be most preferred treatment by the patients though alternative better options were available in the hospital. Therefore, regular dental care, preventive dental education and oral health care need to be followed by both patients and medical personals in the future.

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