

# The Most Frequency Chief Complaint of 5.5-12.5 Years Old Patients Attending POP Department of Hawler Medical University- College of Dentistry

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## Abstract

**Background and objective:** The chief complaints of the patients are important component during taking the history and treatment planning, be useful for several reasons including monitoring of oral health services and measuring the effectiveness of oral health awareness programs . the aim of the study to evaluate and address the most common chief complaints among a patients attending College of Dentistry at Hawler Medical University in Erbil, Iraq.

**Methods:** A retrospective epidemiological study, the age , gender, and the chief complaints or the main reason for visit were recorded for each consecutive patient of total 324 patients who visited the oral hygiene clinics in the College of Dentistry at Hawler Medical University from September 2019 to September 2020. The patients ages were between 5.5-12 years old. A chi-square test was used to test differences in categorical variables T-tests were used to test the significance of differences between numerical values. Statistical association between two variables was performed with the Chi–square test. Significant levels of  $p \leq 0.05$  and  $p \leq 0.01$  were established.

**Result:** Dental pain was the most common chief complaint (29.3%), followed by dental check-up (9.9%) referred from the orthodontic department (4.9%) and dental caries (3.1%). Other complaints included follow up (1.9%), food impaction (0.9%), fractured tooth (0.6%) mobile tooth (0.6%), scaling and polishing (0.6%).

**Conclusion:** Chief complaint is an essential component of the dental history and denotes the demand for care and thus, helps in proper planning of the public dental health care system. The reason for visit varies across different age groups, gender difference was a consideration.

**Keyword:** Chief complaint, Pedodontic patients, Dental health service.

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## INTRODUCTION

One of the important milestones in a child's life is the dental visit. The dental visit should be done at the correct time since it plays an essential part in the child's oral health.

The first visit to the dentist helps figure out how good the preventive dental care will be thus further oral health of the child.<sup>1</sup>

Oral health care is becoming more complicated, with the diagnosis and planning of treatment depending entirely on the chief complaint reported by the patient clinically, research and administrative objectives of dental practices rely on the presence of an easily identifiable and clear chief complaint. They do not seek treatment for dental illness until considerable amount of time has elapsed and the symptoms have become extremely severe, lack of knowledge, fear of dental treatment includes fear of pain, fingers or needles in the mouth, sedation, lying on dental unit, sound of dental instruments, and some of the barriers to seeking dental treatment include motivation for seeking dental treatment.<sup>2</sup>

The ignorance of seeking dental treatment at initial stages of disease leads the tooth to an advanced stage of dental decay which is commonly beyond repair and consequently these delays lead to extraction of the tooth.<sup>3</sup>

The 21st century saw the invention of innumerable advances in diagnostic sciences and dentistry. These technological advances have definitely helped dental healthcare practitioners to effectively diagnose conditions early and provide comprehensive treatment strategies. But even today, it must be understood that for the dental health care provider to develop an effective treatment plan, he/she must first accurately identify and diagnose the dental condition or disease.<sup>3</sup>

The most important part of the case being the patient's chief complaint. Chief complaint may be defined as "the patient's reason for seeking care or attention, expressed in terms as close as possible to those used by the patient or responsible informant". It not only encourages communication between the doctor and patient but also forms the framework around which a clinician builds a diagnosis.<sup>5</sup>

The chief complaint is a statement of why the patient consulted the dentist. It is usually recorded in the patient's own words to accurately reflect the patient's perception of the problem. Restate-

ment of the chief complaint by the dentist may be necessary to clearly define the problem.<sup>6</sup>

The problem that brought the patient to the dentist is obviously a treatment priority, and the patient's chief complaint should become the dentist's chief treatment priority. Otherwise, the patient will seek treatment elsewhere. The aim of this research were to investigate the characteristics of patients attending the College of Dentistry at Hawler Medical University, the chief complaint which make them seek dental treatment.<sup>7</sup>

The American Dental Association (ADA) recognizes the patient's chief complaint as an essential component for the delivery of competent and quality oral health care. It serves as a source of information for both the care provider and the patient. Chief complaint recording assists the practitioner in assimilating and maintaining a comprehensive, uniform, and organized record addressing patient care. However, it is not designated to create a standard of care. The patient's oral disease status should be perceived as a set of challenges that must be treated.<sup>8</sup>

The chief complaint, formally abbreviated as CC, comprises the second step in taking dental history taking and is a concise statement describing the symptom, problem, condition, diagnosis, dentist-recommended return and other factors requiring a dental encounter. The patient's first comments to the dentists, dental assistants and/or other oral health care staff members aid in establishing a differential diagnosis. The recording and determining of chief complaints are also considered the cornerstone for developing a logical treatment plan.<sup>9</sup>

## MATERIALS AND METHODS

A total of 324 patients in the age group of 5.5-12 years old patients attending to the oral diagnosis clinic in the College of Dentistry at Hawler Medical University. The data was carried out over a period of one year extended from September 2019 to September 2020 were included in this research. The patients' name, age and sex, as well as the chief complaint or major cause for each subsequent

### Statistical analysis

After collection all the value then we coded the variable of the data to numerical simulation for analysing the data easily with the help of SPSS computer program.

A chi-square test was used to test differences in categorical variables and for comparisons of the proportions of patients stratified according to different parameters (gender, dental visits, etc.). T-tests were used to test the significance of differences between numerical values. Statistical association between two variables was performed with the Chi-square test.

**RESULTS**

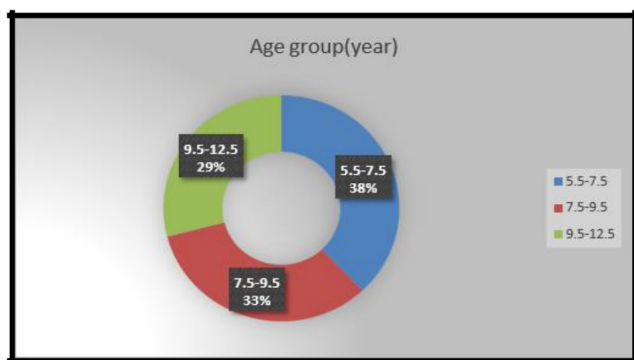
Analysis of the age and gender distribution of the sample population shows that a total 324 patients recruited for the study with ages ranging from 5.5 to 12.5 years and mean age of 8.3 +1.70 years. And 168 were males and 156 were females. The mean age of the patients was found to be 8.3 years.

**Table 1: Descriptive Statistics.**

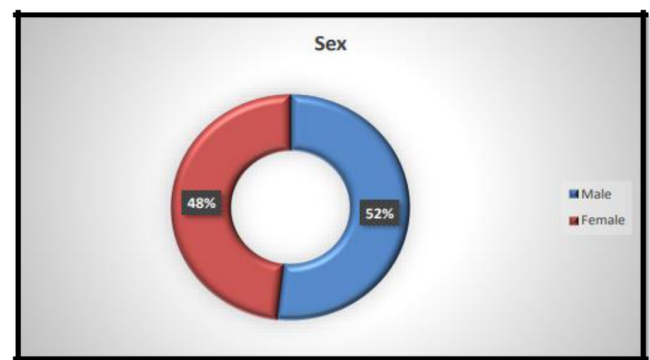
		n	%	mean±SD
Age (year)	5.5-7.5	123.00	37.96%	8.3±1.70
	7.5-9.5	107.00	33.02%	
	9.5-12.5	94.00	29.01%	
Sex	Male	168	51.9%	N/A
	Female	156	48.1%	

Of the 324 patients who participated in the survey, 38% were between the age 6-8, 3% were be-

tween the age of 8-10 and 29% were between the age of 10-12 years old. (Figure 1).



**Figure 1: representing the group distributi**



**Figure 2: representing the gender distribution of patients**

Dental checkup was the most chief complain in age (8.42) dental pain was the most common chief complaint in age (8.04), followed by referred from orthodontic department in age (9.67) and dental caries in age (8.23). Other complaints

included follow up in age (7.89), food impaction in age (8.83), fractured tooth in age (9.33) mobile tooth in age (8.33), scaling and polishing in age (9). (Figure 3)



Figure 3: representing the mean age for each chief complain

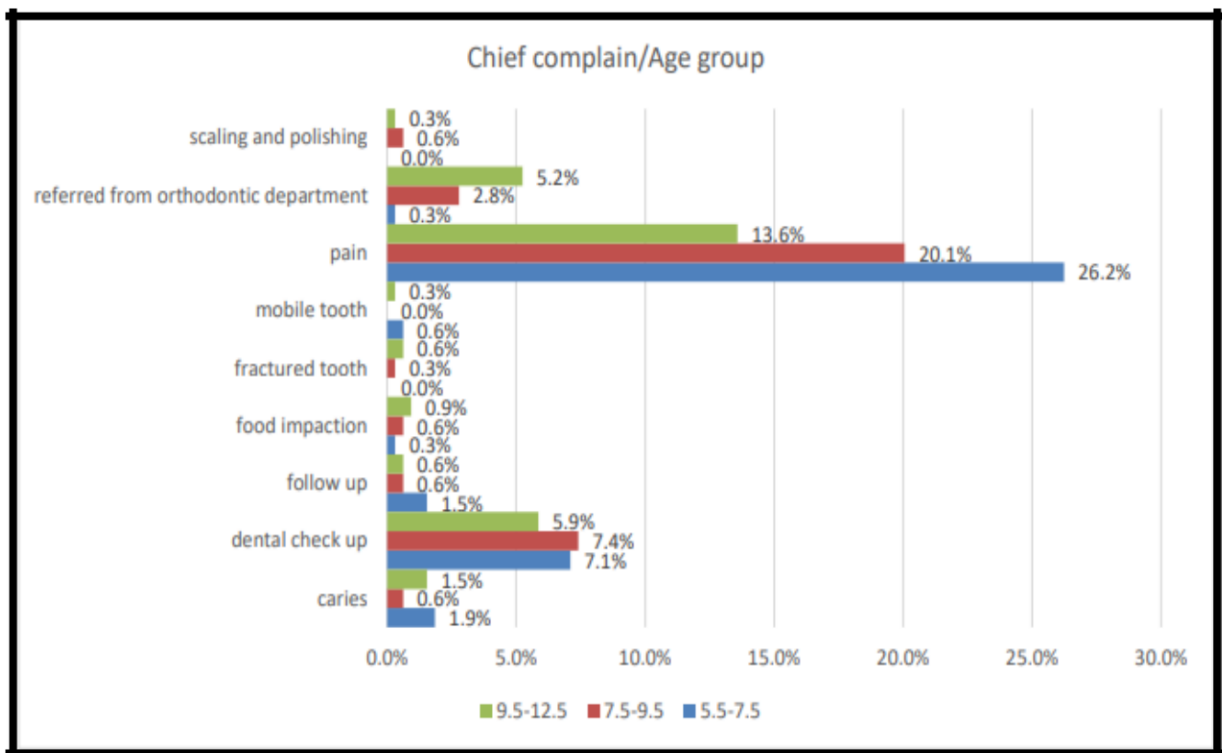


Figure 4: Dependence of each chief complain to the age group of patients

In females, dental pain was the most common chief complaint (30.6%), followed by dental check-up (10.5%) referred from orthodontic department (3.4%) and dental caries (0.9%). Other complaints included follow up (0.9%), food impaction (0.9%), fractured tooth (0.3%) mobile tooth (0.3%), scaling and polishing (0.3%).

In dental pain was the most common chief complaint (29.3%), followed by dental check-up (9.9%) referred from orthodontic department (4.9%) and dental caries (3.1%). Other complaints included follow up (1.9%), food impaction (0.9%), fractured tooth (0.6%) mobile tooth (0.6%), scaling and polishing (0.6%). (Figure 4)

## DISCUSSION

This study was intended to evaluate and assess the most common chief complaints among a set of dental patients at Hawler Medical University, College of Dentistry in Kurdistan. Chief complaint records can be easily and rapidly obtained and are essential data sources for assessing the oral health services, including planning the required dental specialties. Careful analysis of chief complaints supplies an understanding of differences in oral health behaviors and attitudes between men and women and according to their age.<sup>10</sup> Patients generally visit dental clinics when they feel ill, to identify the cause of their illness and get access to treatment. Subsequently, clinical investigations are generally tailored according to the chief complaint. In this descriptive cross-sectional study, 324 patients expressed their chief complaints using a list comprising 9 of the most common reasons for a visit to the dental clinic.<sup>13</sup>

The large range of age registered in present investigation shows that every person despite his age may need dental treatment.<sup>11</sup> It was found that the admission of male patients more than female patients. Which is according to our data analysis the percentage of the male patients was (51.9%) and the percentage of female patients was (48.1%) which is disagreed with studies conducted,<sup>2,3,8</sup> and also we found a prominent connection between age of the patients and their need to visit the dentist regardless of their sex as the investigation shows that patients age from (5.5 to 7.5) years old were more than pa-

tients age from (7.5 to 9.5) years old and the last one is more than patients age from (9.5 to 11.5) years old respectively, which the percentage of (5.5 to 7.5) years old patients was (37.96%), the percentage of (7.5 to 9.5) years old patients was (33.02%) and the percentage of (9.5 to 11.5) years old patients was (29.01%).

Ikimi et al,<sup>13</sup> found that a high percentage of the visitors came for broken teeth (4.4) unlike us which we found only (0.9%) of the total percentage of the patients came for destroyed teeth regardless of their sex, and in the same research the percentage of the patients came for dental checkup was very little (6.2) in comparing to our investigations which the percentage of dental checkup was (10.5)

In a study made in Riyadh Colleges of Dentistry and Pharmacy, Saudi Arabia<sup>1</sup> found that the percentage of the patients referred from orthodontic department was (10%) which is almost the same of our percentage (9.67%) but in the same study the percentage of the patients who came for scaling and polishing to increase the oral hygiene (29%) was higher than our percentage which it was (0.6%).

Abdullah and Al-Tuhafi,<sup>6</sup> in college of Dentistry at Mosul University found that the most common chief complaints were pain and dental checkup and then in small distributed percentages come the other chief complaints, and that represents the most chief complaints in the most of the studies that we found as we know the most irritating factor to the children is the pain and causes discomfort so we have to relieve it then the dental checkup because the primary teeth play a major role in the dentition of the patient and it's health so since birth until eruption of teeth and their exfoliation and eruption of the permanent teeth need a high level of caring and continuous checkups by the dentist to evaluate it. Wrkaa, 2009,<sup>14</sup> found in a study collected from Iraqi patients found that The large numbers of patients complained of toothache (221) = (47.02%), while (178) = (37.87%) of them complained from carious teeth without pain. and the major causes included: poor dental health education (220) = (63.76%), low income (73) = (21.15%), dental anxiety (52) (15.07%). And those causes were the most noticed reasons which make the patients come to our pediatric department in college of dentistry,

hawler medical university but the percentage differs according to the community differences and life style of the population.

Dental emergencies in a university-based pediatric dentistry postgraduate outpatient clinic found that slight female predilection (53 percent female, 47 percent male) and a mean age of 5.1 years and Reasons for seeking emergency included 1) pain or discomfort due to caries [30.1 %] with 27 percent due to early childhood caries; 2) dental trauma [23 %]; 3) eruption difficulties [18 %] 4) soft tissue pathoses [16 %]; 5) trouble with orthodontic appliances or space maintainers [10 %]; and 6) lost restorations [2 %] Pain and bleeding were the most common reason for seeking emergency dental care. Most causes for seeking outpatient emergency dental care are illness procedure which may be avoided by infant oral health and preventive dentistry programs and early treatment intervention.

In study of emergency visits at an oral health clinic in south-east Queensland<sup>11</sup> during the period 2008-2010, there was a mean of  $196 \pm 86$  cases presenting for emergency care each month found that the majority presenting for caries related problems (74-75%), followed by trauma (8-9%), orthodontic treatment related (2-5%) and other reasons (16-11%). according to this study they concluded the Trends in the past three years at a public oral health clinic in a low socio-economic district in south-east Queensland show that dental caries constitutes nearly three-quarters of all pediatric emergency appointment.

In a study of Utilization of a hospital for treatment of pediatric dental emergencies made by Scott et al,<sup>12</sup> found that Emergencies were: 51% trauma, 40% caries, and 9% "other" emergencies unrelated to trauma or caries. Characteristics of patients seeking hospital care for dental emergencies were: (1) young age; (2) non-Caucasian ethnicity; (3) Medicaid as payer; (4) no dentist; and (5) proximity to CHRMC. Use varies by ethnic groups one of the limitation of this study is that it conducted only one public dental clinic without collecting details of the patients which might not represent the entire population of Erbil city and this turn affect the generalization of our results.<sup>13</sup>

## CONCLUSION

The chief complaint is a concise statement describing the symptom, problem, condition, diagnosis, dentist recommended return and other factors need a dental encounter. Chief complaint is an important component of dental history.

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