

Common Chief Complaints of Dental Patients at Umm Al-Qura University, Makkah City, Saudi Arabia

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Abstract

Background and aim: The chief complaints of the patients are an essential component during taking the history and treatment planning. This could be useful for several reasons, including monitoring of oral health services and measuring the effectiveness of the oral health awareness programmes. This paper aims to evaluate and address the most common chief complaints among a set of dental patients at the Faculty of Dentistry in Umm Al-Qura University (UQU), Makkah city, Saudi Arabia. **Materials and methods:** Data extraction forms including demographic variables, and chief complaints, were used to assess 3566 dental patients who visited the dental clinics at Umm Al-Qura University from January 2014 to August 2014. **Results:** The most common chief complaints recorded for the patient sample were dental pain (35.4%), routine check-up (13%), and dental decay (6.9%). **Conclusion:** The results of this study suggest that the chief complaint is an essential component of the dental history, with pain and decay being the most commonly reported.

Key Words: Chief complaints, Dental pain, Treatment plan

Introduction

Oral health care is becoming more complex, with the diagnosis and planning of treatment depending entirely on the chief complaint reported by the patient [1]. Clinical, research and administrative objectives of dental practices rely on the presence of an easily identifiable and clear chief complaint [2]. A chief complaint is defined as a subjective statement provided by a patient that describes the most significant or serious symptoms or signs of illness or dysfunction that caused him or her to seek a health care provider [3]. It is generally recorded in the patient's own words. Multiple complaints are recorded in a chronological order to reflect the patient's perception of the problem accurately [2,3]. The severity of the chief complaint reflects the urgency of the patient to seek dental care. In dental practice, pain is the main frequent complaint for which patients seek treatment [4].

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 [5]. 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 [4,6]. The patient's oral disease status should be perceived as a set of challenges that must be treated [6,7]. The chief complaint, formally abbreviated as CC, comprises the second step in dental history taking and is a concise statement describing the symptom, problem, condition, diagnosis, dentist-recommended return and other factors requiring a dental encounter [3]. The patient's initial comments to the dentists, dental assistants and/or other oral health care staff members aid in establishing a differential diagnosis. Recording and identification of chief complaints are also considered the cornerstone for developing a logical treatment plan [8]. From these perspectives, this study was conducted to identify the most common chief

complaints for a set of patients attending the dental clinics at Umm Al-Qura University (UQU).

Subjects and Methods

This paper represented a descriptive cross sectional study and it relayed on a self-reporting questionnaires. A total of 3566 patients who visited the dental clinics in the Faculty of Dentistry at Umm Al-Qura University (Makkah city), from January 2014 to August 2014 were recruited. Ethical approval was obtained from the ethics committee of the Faculty of Dentistry, Umm Al-Qura University. Data extraction forms were developed to collect patient information from the dental clinics. The data extraction forms including demographic variables (age and sex) and chief complaints. Chief complaints included the reason(s) why patients sought dental care. If there was more than one chief complaint, the most important one was recorded. A routine dental checkup considered for any patient who visits the dentist every six months to assess the current oral health, any risk of future diseases, and advises on the care and treatment required securing a good oral health.

Statistical methods

All statistical analyses were conducted using the Statistical Package for Social Sciences (SPSS) software, version 17 (Chicago Inc.). 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.

Results

In total, 3566 (1676 men and 1890 women) patients with a mean age of 30.3 years were included in this study, *Table 1*. Of the total number of participants, 23.4% regularly visited dental clinics, with a significantly higher proportion of women

who regularly visited dental clinics (25.3%) compared with that of men (21.2%). A total of 73.7% participants irregularly visited dental clinics. The proportion of patients who visited

the dental clinics with complaints was significantly higher among women (77.7%) than among men (68.4%).

Table 1. Demographic characteristics and oral health-related factors for the participants of the study.

Variables		Men	Women	Total	P-value
	N (%)	1676(47%)	1890(53%)	3566(100%)	
	Age (Mean \pm SD)	31.23 \pm 16.18	29.29 \pm 15.45	30.32 \pm 16.43	
Chief complaint	Present	1147(68.4%)	1469(77.7%)	2616(73.4%)	0
	Absent	529(31.6%)	419(22.2%)	948(26.58%)	0
	P-value	0.227			

Table 2. Commonly recorded chief complaints for the present cohort of patients.

Chief complaints	Men (%)	Women (%)	P-value	Total (%)
	1676 (47%)	1890 (53%)		
Pain	34.80%	37.40%	0.12	35.4
Routine check-up	14.00%	10.40%	0.002	13
Dental decay	6.80%	7.10%	0.74	6.9
Tooth cleaning	7.20%	2.80%	0	5.9
Tooth malalignment	4.70%	7.10%	0.004	5.4
Tooth whitening	4.70%	6.60%	0.02	5.3
Missing tooth/teeth	4.30%	3.80%	0.477	4.4
Tooth filling	4.50%	1.90%	0	3.8
Implant placement	2.60%	3.80%	0.05	3
To improve the aesthetics of my teeth	2.60%	3.80%	0.05	3
Tooth sensitivity	0.50%	2.40%	0	2.6
Facial swelling	0.90%	2.80%	0	1.5
Bad smell	1.90%	0.50%	0	1.5
Temporomandibular joint disorder	1.30%	1.40%	0.8	1.4
Discomfort	1.30%	0.90%	0.284	1.2
Gum enlargement	0.90%	1.90%	0	1.2
Food impaction	0.90%	1.90%	0	1.2
Gum discolouration	1.30%	0.90%	0.01	1.2
Oral ulcer	1.10%	0.90%	0.573	1.1
Burning sensation	0.90%	0.50%	0.182	0.8
Intra-oral swelling	0.20%	0.90%	0.006	0.4

Table 2 shows the most common chief complaints of the participants. Dental pain was the most common chief complaint (35.4%), followed by a routine check-up (13%) and dental decay (6.9%). Other complaints included tooth cleaning (5.9%), tooth malalignment (5.4%), tooth whitening (5.3%), missing tooth/teeth (4.4%), tooth filling (3.8%), dental implant placement (3%), tooth sensitivity (2.6%), and intra-oral swelling (0.4%).

Discussion

This study was intended to evaluate and assess the most common chief complaints among a set of dental patients at the Faculty of Dentistry in Umm Al-Qura University, Makkah city. Chief complaint records can be easily and rapidly obtained and are essential data sources for evaluating the oral health services, including planning the required dental specialities in Makkah city. Careful analysis of chief complaints provides an understanding of differences in oral

health behaviours and attitudes between men and women [9]. Patients generally visit dental clinics when they feel ill, to determine the cause of their illness and get access to treatment [8,10]. Subsequently, clinical examinations are generally tailored according to the chief complaint [8]. In this descriptive cross sectional study, 3566 patients expressed their chief complaints using a list comprising 21 of the most common reasons for a visit to the dental clinic.

The most common chief complaint reported by patients was dental pain (35.4%). This finding was consistent with other studies; where pain was a common reason for dental visits, and the patients visit dental clinics for curative treatment, not preventive treatment. Unfortunately, most of the reported chief complaints were aimed at curative treatment, with very few patients visiting the dental clinics for a routine check-up or preventive treatment. Although, the results in this study indicate that women are a regular visitors and the most common types of patients seek dental care than the men. However, they are seeking the dental care when they are in pain or are experiencing hypersensitivity. These differences may be attributed to limited available time and multiple pregnancies for women, which may prevent them from visiting a dentist for a routine check-up [11,12]. Therefore, it was not surprising that the proportion of women who presented for a routine check-up was disappointingly low (10.4%). Poor knowledge on the importance of routine dental check-ups and compliance with treatment are frequently cited concerns in our country and other developing countries [10,13]. However, the increased frequency of complaints such as sensitivity and food impaction and the lack of good oral hygiene practices led to a significantly higher proportion of women who regularly visited dental clinics compared with that of men in this study [13-15].

Tooth cleaning, bad smell and gingival discolouration were reported significantly ($P < 0.001$) and more frequently by men than by women. A significantly higher smoking prevalence and daily cigarette consumption were associated with being male in Saudi Arabia might help to explain that results [16]. Furthermore, tooth malalignment, tooth sensitivity, and food impaction were significantly more common with women than with men ($P < 0.001$). These findings seemed justified, considering the lower use of toothbrushes by women than by men.

Food impaction could be attributed to periodontal pocket formation due to the lack of oral hygiene, while tooth sensitivity could also be attributed to tooth malalignment. Various investigators have shown a temporal relationship between the use of contraceptives and gingival enlargement, a possible explanation for the higher frequency of gingival enlargement among women.

The long duration of treatment, cost and relative lack of specialty services at the centre may be reasons why patients do not visit dental clinics solely for orthodontic treatment. However, there has been a reported increase in the number of patients who are concerned about tooth malalignment and desire orthodontic treatment. Evidence-based dental practice should now aim at changing the reasons for seeking dental care from curative to preventive [7,9,17].

Study limitations and future directions

The most common chief complaints in this study were solely based on the patients' reports that visited a single-centre (hospital-based epidemiological study) in Makkah city. The included population cannot be considered as a representative sample of the available heterogeneous population, because the convenience sampling technique was adopted in the study. Furthermore, most patients (mean age, 31.2 ± 16.2 years) included in were middle-aged, which restricted the list of complaints to those commonly presented by this age group. Considering the current trend of increasing populations in extreme age groups, further studies adopting the stratified sampling technique to ensure representation from all age groups are necessary.

Conclusion

The chief complaint is a concise statement describing the symptom, problem, condition, diagnosis, dentist-recommended return and other factors requiring a dental encounter. Within the limitations of the study, the results of this study suggest that the chief complaint is an essential component of the dental history, with pain and decay being the most commonly reported.

Recommendation

Oral health awareness programmes is one of the significant advices that have to be considered by the dental care providers to help reduce the incidence of dental decay and pain. This can be delivered during taking the dental history and as a part of oral health awareness programmes. Reporting the chief complaint, which is easy to obtain, is an essential data source for planning the required dental specialities in Makkah city.

Conflict of interest

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References

1. Calley KH. Dental Hygiene Process of Care, in Darby M.L., ed.: Mosby's Comprehensive Review of Dental Hygiene, 5th edn. St. Louis, Mosby, 2002; 577-578.
2. Gordon SM, Dionne RA. The integration of clinical research into dental therapeutics: the role of the astute clinician. *The Journal of the American Dental Association*. 2004; **135**: 1537-1543.
3. Greenberg MS, Glick M. *Burket's Oral Medicine: Diagnosis and Treatment*. 10th edn. BC Decker INC. 2003.
4. Draid YA, Olmamat AF, Hyasat A, Othman EF. The most common chief complaint among Jordanian children at first dental visit. *Pakistan Oral & Dental Journal*. 2014; **34**: 549-564.
5. American Dental Education Association. Competencies for Entry into the Profession of Dental Hygiene. *Journal of Dental Education*. 2005; **69**: 803-809.
6. Stefanac SJ. *Treatment Planning in Dentistry*. St. Louis, Mosby, 2001: 20-25.
7. Anderson JD. Applying evidence based dentistry to your patients. *Dental Clinics of North America*. 2002; **46**: 157-161.

8. Lewis C, Lynch H, Johnston B, Dental complaints in emergency departments: a national perspective. *Annals of Emergency Medicine*. 2003; **42**: 93-99.

9. Kageyama M, Odagiri K, Suzuki N, Honda K, Onoue K, et al. Educational effectiveness of a group health education program in the workplace and an examination of educational methods to promote behavior modification. *Journal of Occupational Health*. 2014; **56**: 141-151.

10. Ali WM. Chief complaint, treatment need and factors affect late attendance to dental clinic in a sample collected from Iraqi patients. *Marietta Daily Journal*. 2009; **6**: 65-68.

11. Abdullah BA, Al-Tuhafi AA. Chief complaints of patients attending College of Dentistry at Mosul University. *Al-Rafidain Dental Journal*. 2007; **7**: 201-205.

12. Masiga MA. Presenting chief complaints and clinical characteristics among patients attending the department of pediatric dentistry clinic at the University of Nairobi Dental Hospital. *East African Medical Journal*. 2005; **12**: 652-655.

13. Greenwell H, American Academy of Periodontology Committee on Research, Science, and Therapy. Periodontal therapy. Position paper: Guidelines for periodontal therapy. *Journal of Periodontology Online*. 2001; **72**: 1624-1628.

14. AL-Ani SandMerza MS. Oral findings in a sample collected from a public clinic in Baghdad. *Mustansiria Dental Journal*. 2006; **4**: 327-329.

15. Jainkittivong A, Aneksuk V, Langlais RP. Chief complaints, dental health status and dental treatment needs in elderly patients. *Chulalongkorn University Dental Journal*. 2005; **28**: 189-198.

16. Saeed A, Khoja TA, Khan SB. Smoking behaviour and attitude among adult Saudi nationals in Riyadh City, Saudi Arabia. *Tobacco control*. 1996; **5**: 215-219.

17. American Dental Association Survey Center. 2007 Survey of Current Issues in Dentistry: Selected Results. *American Dental Association*. 2008; 2-4.