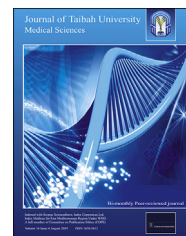




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Original Article

Self-medication for oral health problems among adults attending the University Dental Hospital, Sharjah



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المخلص

أهداف البحث: تهدف هذه الدراسة للبحث في ممارسة العلاج الذاتي لمشاكل صحة الفم بين البالغين الذين يراجعون مستشفى الأسنان الجامعي بالشارقة. حيث تم تسجيل أسباب الزيارة ونوعها، ومدة ومصادر العلاج الذاتي.

طرق البحث: أجريت دراسة مقطعية عرضية بين المرضى البالغين المراجعين لمستشفى الأسنان الجامعي بالشارقة. تم استقطاب 566 مشاركاً تم اختيارهم باستخدام معايير الإشمال والاستبعاد المحددة سابقاً. كما تم جمع المعلومات باستخدام استبانة ذاتية مغلقة.

النتائج: أجاب 400 مشارك (70.7%) من أصل 566 أنهم يمارسون العلاج الذاتي. من بينهم أولئك الذين يمارسون العلاج الذاتي لمشاكل صحة الفم، متوسط العمر كان 26 ± 9.4 سنوات. كانت نسبة الذكور 52% ونسبة الإناث 48% وكان غالبيتهم (46%) من الحاصلين على التعليم العالي؛ بينما لم تكن مهنتهم مرتبطة بالمجال الطبي (69.97%). كان العامل الأكثر شيوعاً الذي أدى إلى ممارسة العلاج الذاتي هو ألم الأسنان (56.5%)، في حين أن الأسباب الرئيسية للعلاج الذاتي كانت عدم توفر الوقت الكافي لزيارة عيادات الأسنان (37.6%) والتصور أن ألم الأسنان ليس مشكلة صحية خطيرة (36.8%). وكانت المسكنات هي العلاج الرئيس المستخدم كعلاج ذاتي.

الاستنتاجات: يعد العلاج الذاتي لمشاكل صحة الفم ممارسة شائعة في دولة الإمارات العربية المتحدة. وكانت الأسباب الرئيسية للعلاج الذاتي هي ضيق الوقت لزيارة عيادات الأسنان واعتبار أن مشاكل صحة الفم أقل خطورة. وكانت مسكنات ألم الأسنان هي الأدوية الأكثر شيوعاً ويتم شراؤها من الصيدلية المحلية.

الكلمات المفتاحية: علاج ذاتي؛ مشاكل صحة الفم؛ ألم الفم؛ أطباء الأسنان؛ المسكنات

Abstract

Objective: The aim of this study was to investigate the self-medication practices for oral health problems among adults attending the University Dental Hospital Sharjah (UDHS). The reasons for visits and types, durations, and sources of self-medication were recorded.

Methods: This cross-sectional study was conducted among adult patients attending UDHS. A total of 566 participants were recruited using pre-determined inclusion and exclusion criteria. Data collection was performed using a self-administered closed-ended questionnaire, and information was analysed using SPSS software version 22.

Results: Four hundred of 566 (70.7%) respondents indicated that they practice self-medication. Among those who practiced self-medication for oral health problems, the mean age was 26 ± 9.4 years (52% men and 48% women), and the majority (46%) had obtained higher education, although their profession was not related to the medical field (69.97%). The most common factor that triggered self-medication practices was toothache (56.5%), while the main reasons for self-medication were both lack of time to visit a dental clinic (37.6%) and the perception that dental ailments were not serious health issues (36.8%). Analgesics were the main medicines used for self-medication.

Conclusion: Self-medication for oral health problems is a common practice in UAE. Lack of time to visit dental clinics and the perceived low importance of oral health problems were the main reasons for self-medication.

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Analgesics for toothache were the most frequent medications purchased from the local pharmacy.

Keywords: Analgesics; Dentists; Oral health problems; Oral pain; Self-medication

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Introduction

Self-medication is a common practice in both developed and developing countries.^{1,2} It is defined as the utilization of drugs to treat self-diagnosed disorders and drug prescription without proper professional consultation.^{3,4} However, irrational self-medication has multiple adverse effects and is one of the reasons for antibiotic resistance.⁵ Antibiotic misuse is one of the major contributing factors to antimicrobial resistance, since there are no strict regulations on self-medication.^{6,7} It can also lead to incorrect self-diagnosis, delays in seeking appropriate care, dangerous drug interactions, risk of dependence, drug abuse, and incorrect dosage and choice of medication.^{8,9} Self-medication of antibiotics is on the rise in the United Arab Emirates (UAE) and has significantly contributed to bacterial resistance in the country.^{10,11}

Dental patients often self-medicate with over-the-counter medicines to alleviate pain. Self-medication is one of the typical patient responses to acute or chronic dental pain.¹² Acute pain represents one of the most frequent complaints encountered by primary care physicians.¹³ However, many patients are not aware of the various contraindications and side effects of these medications.¹⁴

Many factors play a role in the practice of self-medication, including economic status, cultural perception of diseases, anxiety, and dental phobia.⁴ Responsible self-medication is an integral part of the health system, wherein community pharmacists counsel patients on treating minor illness using non-prescription medications.¹⁵

Numerous studies have reported self-medication in various populations of adolescents and adults.^{16–18} The prevalence of self-medication is observed to be on the rise among the elderly, but the frequency depends on the heterogeneity of the sample.¹⁹ Self-medication is also a habit seen between medical students, which, in turn, can affect the way they prescribe medication in the future.²⁰ Interestingly, studies concluded that the incidence of self-medication practices is not less in the educated population.²¹ Studies have also revealed an increasing trend of self-medication among the youth. This can be attributed to lifestyle factors, ready access to drugs, increasing awareness of diseases due to higher levels of education, availability of medicinal products, and exposure to advertisements.²² The common reasons for self-medication include headache, cough, fever, and pain.¹ Dental conditions such as toothache, gingival bleeding, discomfort, and halitosis are among the other reasons for self-medication.^{23,24} However, a very limited number of studies have assessed the impact of self-medication on dentition.⁴

The objective of this study was to investigate self-medication for oral health problems among adults attending the University Dental Hospital Sharjah (UDHS) in UAE, by exploring the reasons, types, duration, and sources of self-medication.

Materials and Methods

Random sampling was performed to recruit adult patients attending UDHS for dental treatment between January and May 2018. Inclusion criteria were age between 18 and 65 years and the ability to read and understand English or Arabic. Patients with intellectual disabilities, dementia, or chronic diseases were excluded. Thus, a total of 566 participants agreed and consented to participate in the study. The first part of the questionnaire asked if they practiced self-medication. Participants who did not practise self-medication were asked not to proceed with the second part of the questionnaire.

All participants were assured of the confidentiality of their personal information. Ethical approval was obtained from the University of Sharjah Research Ethics Committee (REC-17-11-03-01-S, date 26/11/2017). The objectives of the study were explained to the participants, and their written consent was obtained. Data collection was performed using a self-administered closed-ended questionnaire.

The questionnaire was developed by reviewing different studies.^{25,26} It was prepared in Arabic and English languages. A pre-test was conducted among 50 subjects not included in the sample, and the ambiguities identified in the pre-test were addressed. The first section of the questionnaire elicited information on demographic characteristics like age, gender, education level, and marital status, while the second section had questions covering attitudes and practices related to self-medication. The marital status of the participants was categorized as married or single, wherein the “single” status included divorced and widowed participants as well. Educational level was categorized according to the participants’ educational degree, wherein none indicated primary school education or lower. Data were analysed using SPSS version 22 software and Microsoft Excel.

Results

A total of 566 respondents participated in the study, and 400 (70.7%) of them indicated that they practiced self-medication for oral health problems. The highest prevalence was among young participants aged 18–30 years (315: 78.8%). The mean age of the participants was 26.2 ± 9.4 years, as shown in [Table 1](#). In terms of education level, participants with a bachelor’s degree comprised the largest group of those practicing self-medication (41.5%). The education level and sociodemographic characteristics of the participants are shown in [Table 1](#).

The most frequent agents used for self-medication were analgesics (45.3%). When participants were asked about the effect of self-medication, the majority (55%) indicated that the effect was temporary pain relief. Regarding the source of advice, most of the participants (38%) claimed that they got

Table 1: Sociodemographic characteristics of the participants.

Demographic Factors	Mean (SD)	Categories n (%)
Age (years)	26 (9.4)	
	Young aged 18–30 yr	315 (78.8%)
	Adults aged 31–45 yr	62 (15.5%)
Nationality		
	Arab	294 (73.5%)
	Non-Arab	106 (26.5%)
Marital status		
	Single	306 (76.5%)
Educational level	Married	94 (23.5%)
	None	4 (1%)
	High school	94 (23.5%)
	Diploma	119 (29.75%)
	Bachelor/undergraduate	166 (41.5%)
Profession	Master	15 (3.75%)
	Doctorate	2 (0.5%)
	Health-Related	122 (30.5%)
	Not health-related	278 (69.5%)

their self-medication advice from relatives, while 71% also mentioned that the medicine used for self-medication was purchased from the local pharmacy. Self-medication was mostly practiced for a few days by 53.1% of the participants [Table 2](#).

When participants were asked about the most common reasons for their self-medication, 37.6% indicated that it was due to a lack of time to visit a dental clinic. In addition, 36.8% perceived that dental problems were not serious health issues, as shown in [Figure 1](#). The triggers for self-medication were mainly toothache (56.5% of the participants), followed by other oral-related problems, as shown in [Figure 2](#).

Table 2: Self-medication types, sources, and durations.

Factors	n (%)
Type of medication used	
Analgesics	181 (45.3%)
Native herbs	80 (20.0%)
Antibiotics	45 (11.3%)
Salt and hot water	85 (21.3%)
Ice pack	9 (2.3%)
Other:.....	0
Source of advice for self-medication	
Relatives	152 (38.0%)
Friends	49 (12.3%)
Personal Knowledge	91 (22.8%)
Pharmacist	62 (15.5%)
Mass media	26 (6.5%)
Traditional healers	9 (2.3%)
Other:.....	11 (2.8%)
Source of medicine	
Local pharmacy	289 (72.3%)
Hospital Pharmacy	74 (18.5%)
I make it at home	37 (9.3%)
Other:.....	0
The duration of self-medication	
Few days	212 (53%)
Few weeks	48 (12%)
Till the condition subsides	140 (35%)
Other:.....	0

Discussions

This study investigated self-medication patterns for oral health problems by exploring the reasons, types, duration, and sources of self-medication among adults attending UDHS. Our results showed that 70.7% of the participants practiced self-medication for oral health problems. This percentage is similar to those reported in several studies; in Cameroon, the self-medication prevalence was 67.8%,²³ while another study conducted with patients in Buenos Aires University yielded a prevalence of 77%,¹⁷ and a study conducted among adults in Riyadh, KSA reported a prevalence of 63.25%.¹⁸ However, other studies have reported prevalence values lower than the results of our study; the prevalence of self-medication was 27.1% among adults living in Serbia,²⁷ 43.24% in Mekelle, Ethiopia,¹⁶ and 48.95% in Ibadan, Nigeria.²¹ In our study, the highest prevalence of self-medication was observed in patients aged 18–30 years, whereas the highest prevalence in the Jordanian study was in those aged 36–55 years,² and that in a Nigerian study was in those aged 20–40 years.⁴

The most common reason for self-medication was a lack of time to visit a dentist (37.6%), followed by the perception that dental problems were not a serious health issue (36.8%). This could be attributed to the busy lifestyle in UAE, where people do not have the time to visit a dentist. This result was also consistent with a study performed in Nigeria, in which the main reason for self-medication was the perception that toothaches were not serious illnesses as well as the time constraints caused by busy work schedules. The authors of that study also found that their study population did not assign a high value to dental problems and dentistry as a profession.⁴ This finding is similar to the study on Palestinian medical and non-medical university students, which reported that prior experience and the non-seriousness of the disease were the reasons for self-medication practices.²⁸ However, this is in contrast with a study conducted in Mekelle, Ethiopia, where the main reason for self-medication was economic-related, since self-medication was less expensive.²⁹ It is understandable that someone may have indulged in self-medication practices when they perceived that the health problem is not serious, especially when coupled with the availability of drugs they believed could provide cure in the local pharmacy. As for the triggers for self-medication, the results of this study found that toothache was the main trigger (56.5%), which is in agreement with the findings in Indian (52.6%) and Cameroonian (54.7%) populations.^{23,30} In another study on self-medication for toothache among patients who attended oral surgery clinics, 59% of the respondents reported self-medication for tooth pain, and almost 86% of these individuals obtained pain relief.¹⁴ However, in an online survey conducted in the UK, Russia, and Australia, toothache accounted only for 2.54% of the 8811 participants. This particular study included other reasons too, such as back pain, muscle pain, and joint pain.³ Our study showed that self-medication is mostly based on the advice obtained from relatives (38%) or the participants' own personal experience (22.75%), with further motivation provided by the availability of the required drug from the local pharmacy (71.18%).

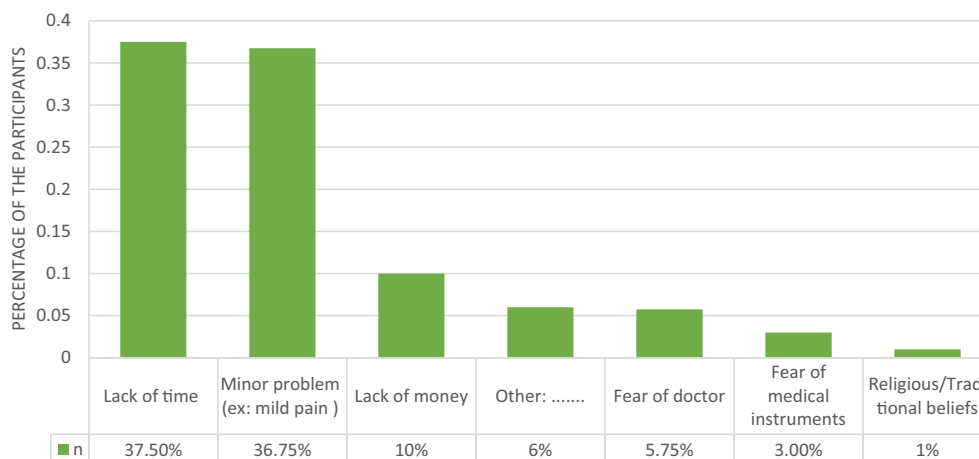


Figure 1: Reasons for practicing self-medication.

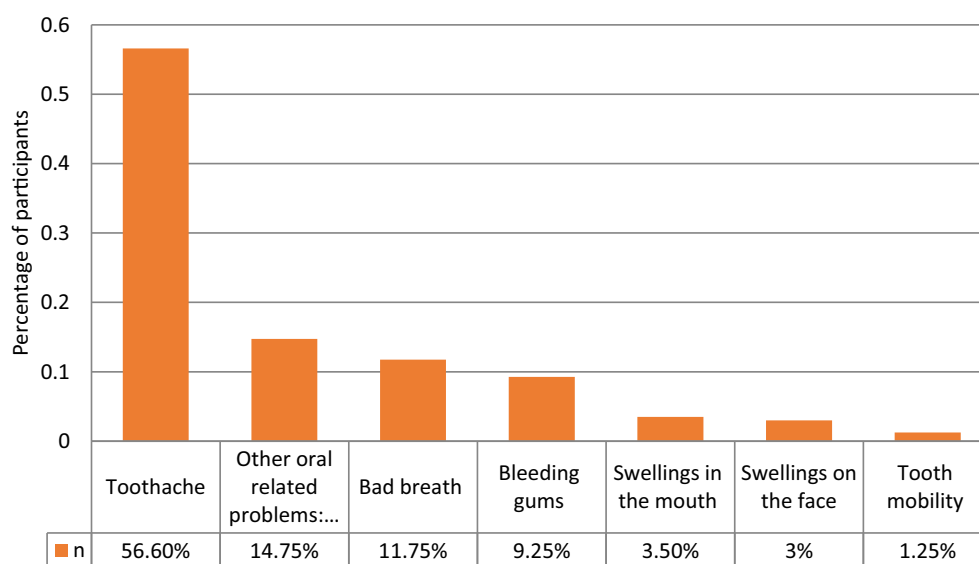


Figure 2: Reasons triggering self-medication practices.

People in UAE seek advice from their relatives who have encountered the same medical problem. In this study conducted among adults attending UDHS, the most frequently used self-medication was found to be analgesics (45.25%), which is similar to the results of a study among dental patients in Bangalore.³⁰ Moreover, in a study conducted in Nigeria, the following analgesics and antibiotics were the most frequently used: aspirin, Panadol, Amoxil, and Amoxicillin.^{4,31} In contrast, in a study conducted among adults living in Riyadh, KSA, consumption of salt in hot water and acetaminophen, which is an analgesic, were the most frequent self-medication choices.¹⁸

In our study, only 1% of the participants were found to be illiterate, indicating that the practice of self-medication did not depend on the illiteracy and educational level of our population. However, another study on self-medication for oral and dental problems in India suggested that lack of education could be a contributory factor towards self-medication.²⁶

Analgesics are readily available not only in pharmacies in UAE, but also in the local supermarkets. This makes it very easy for patients to purchase and consume these drugs when they need to. According to studies in Nigeria, most patients engage in self-medication activity by consuming analgesics or antibiotics.^{4,31} However, this behaviour has an impact on the emergence of resistant strains of microorganisms and the development of irreversible pulpal damage. Thus, awareness of the dangers of this attitude is essential, since self-medication can cause a delay in diagnosis, especially when conditions like oral cancers are involved where the survival of the patient depends greatly on early diagnosis.¹²

Self-medication risks in developing countries are reportedly higher than those in industrialized countries. This can be associated with the fact that prescription drugs are readily available in developing countries. It can also be attributed to the malfunctioning healthcare systems in developing countries and the fact that drug regulations are limited or do not apply to self-medication. However, in industrialized

countries, this act is more of a consumer luxury because it is guided by relatively responsible information gained from books, magazines, prescription inserts, and other media.⁵ Our study showed that patients often self-medicate when they do not have the time to visit a dentist on encountering a dental problem, indicating the importance of addressing the working times of dental clinics in UAE and the preferred time of visit by the population.

The limitations of this study are that the sample was recruited only among adults attending one dental hospital in UAE, and the correlation between self-medication and sociodemographic factors was not discussed. Further studies regarding self-medication are recommended to cover other populations in UAE. Future studies should also aim to assess the association of self-medication with sociodemographic factors such as age, gender, and socioeconomic and educational background.

Conclusion

Self-medication for oral health problems is a common practice in UAE due to a lack of time to visit dentists or the perception that dental problems are not serious. It is triggered mostly by toothaches, and analgesics are the most frequent medication used, which are usually purchased from the local pharmacy. The advice to use self-medication is taken from relatives or based on the people's own experience.

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Conflict of interest

The authors have no conflict of interest to declare.

Ethical approval

There are no Ethical or Financial issues, Conflicts of interests, or animal experiments related to this research.

Authors' contributions

HAAQ: Designed the study, conducted the research, collected and organized data, analyzed and interpreted data, wrote the initial and final draft of the article. FSG: Designed the study, conducted the research, collected and organized data, wrote the initial and final draft of article. ANZ: Conducted research, collected data, wrote an initial draft of the article and provided logistic support. NIR: Conducted research, collected data, wrote the initial draft of the article and provided logistic support. NA: Designed the study, analyzed and interpreted data, and wrote an initial draft of article. SAK: Conceived and designed the

study, analyzed and interpreted data. Wrote initial and final draft of the article, final approval of the version to be submitted. All authors have critically reviewed and approved the final draft and are responsible for the content and similarity index of the manuscript.

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