



PREVENTIVE DENTAL AND ORAL HYGIENE KNOWLEDGE AMONG PATIENTS SEEKING DENTAL CARE IN BAGHDAD, IRAQ

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Article history:	Abstract:
Received: April 11 th 2023	Background: Evidence has shown that an increase in knowledge about risk factors for oral disease and strong knowledge of oral health demonstrates better oral care practices that aim to promote healthy habits Aim of the study: The current study aimed to estimate preventive dental knowledge among a sample of the Iraqi population. Patients and method: A descriptive cross-sectional study was conducted in Baghdad, Iraq during the period from the 1 st of December 2022 to the 1 st of April 2023. A convenient sampling method was adopted to enrol 300 patients 18-60 years old who visit the primary care center due to dental disease. The questionnaire was composed of two parts. The first part included the socio-demographic data (age, gender, occupation, education, and area of residence. In addition to the source of knowledge. The second part was related to the patient's knowledge about preventive dental measures, it included 10 questions that were obtained from similar articles. Results: A total of 300 participants were enrolled in the current study, 30% of them were aged 18-30 years old. Males constituted more than half of the sample (53.7%). the largest proportion of the participants had primary school education (35.7% and 68% were employed. About 34% of the participants got their information from social media, and 31% of them got their information from dentists. The highest percentage of correct answers was related to Q1 " Using available techniques, it is possible to prevent the formation of most caries lesions" (70.3%). The lowest percentage of correct answers was related to Q10 "It is desirable to use professional applications of fluorides for all children in areas with fluoridated water supplies" (70.3%). There was a significant difference between the mean of the total number of correct questions and gender and source of information (the higher mean was among females and those who got their information from the dentists than others). Conclusion: Most of the participants answered correctly regarding preventive dental knowledge. The gender and source of information significantly affect the knowledge of the participants.
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INTRODUCTION

The oral cavity is often referred to as the window to overall health because of the relationship between oral health and overall health⁽¹⁾. Oral health can affect general health by causing pain, difficulty eating, and changes in speech that affect the quality of life. Poor oral health behaviours also lead to caries, and periodontal disease and are associated with oropharyngeal cancers⁽²⁾. The World Health Organization defines oral health as "a state of being free from mouth and facial pain, oral and throat cancer, oral infection and sores, periodontal (gum) disease, tooth decay, and tooth loss⁽³⁾."

Preventive dental care interventions not only reduce the incidence of oral diseases but are also cost-effective, easy to administer, and logical to use at the community level^(4, 5). Preventive dental knowledge is the precursor to the reduction of caries prevalence⁽⁶⁾. The prevalence of dental caries has remarkably declined in most of the developed countries as a direct result of the significant increase in the level of oral health awareness and knowledge among parents and children^(6, 7). In developing countries, the Global Burden of Disease Study 2016 estimated that the prevalence of oral diseases continues to increase notably due to



inadequate exposure to primary oral healthcare services and poor access to basic oral health knowledge⁽⁸⁾.

Knowledge means that the individual has all data necessary to understand what oral disease is and how it arises, as well as to understand the protective measures that need to be adopted. This knowledge will, in theory, lead to a change in attitude, which will in turn lead the individual to make changes in their daily life⁽⁹⁾.

The importance of behavioural interventions for oral health is underlined by the fact that oral diseases are multi-factorial and greatly influenced by several behaviours such as oral hygiene, oral healthcare seeking, tobacco smoking, and stress-coping⁽¹⁰⁾.

Evidence has shown that an increase in knowledge about risk factors for oral disease and strong knowledge of oral health demonstrates better oral care practices that aim to promote healthy habits⁽¹¹⁾.

AIM OF THE STUDY

The current study aimed to estimate preventive dental knowledge among a sample of the Iraqi population.

PATIENTS AND METHOD

A descriptive cross-sectional study was conducted in Baghdad, Iraq during the period from the 1st of December 2022 to the 1st of April 2023.

A convenient sampling method was adopted to enrol 300 patients with 18-60 years old of age who visit the primary care center due to dental disease.

The questionnaire began with a brief explanation of the aim of the study and then a statement indicating to the participants that their answers would be stored and transmitted securely for protecting confidentiality.

The questionnaire was composed of two parts. The first part included the socio-demographic data (age, gender, occupation, education, and area of residence. In addition to the source of knowledge. The second part was related to the patient's knowledge about preventive dental measures, it included 10 questions that were obtained from similar articles.

Statistical analysis was performed using Microsoft Excel and the Statistical Package for the Social Sciences (SPSS) version 22.

RESULTS

A total of 300 participants were enrolled in the current study, 30% of them were aged 18-30 years old. Males constituted more than half of the sample (53.7%). The largest proportion of the participants had primary school education (35.7%) and (68%) were employed (Table 1)

Table 1: Sociodemographic distribution of the participants

Sociodemographic characteristics of parents		N (%)
Age (years)	18-30	90 (30.0)
	30-39	86 (28.7)
	40-49	24 (28.0)
	≤50	40 (13.3)
Gender	Male	161 (53.7)
	Female	139 (46.3)
Education	Illiterate	54 (18.0)
	Primary school	107 (35.7)
	Secondary school	79 (26.3)
	College or higher	60 (20.0)
Occupation	Employed	206 (68.7)
	Unemployed	94 (31.3)

About 34% of the participants got their information from social media, and 31% of them got their information from dentists (Figure 1).

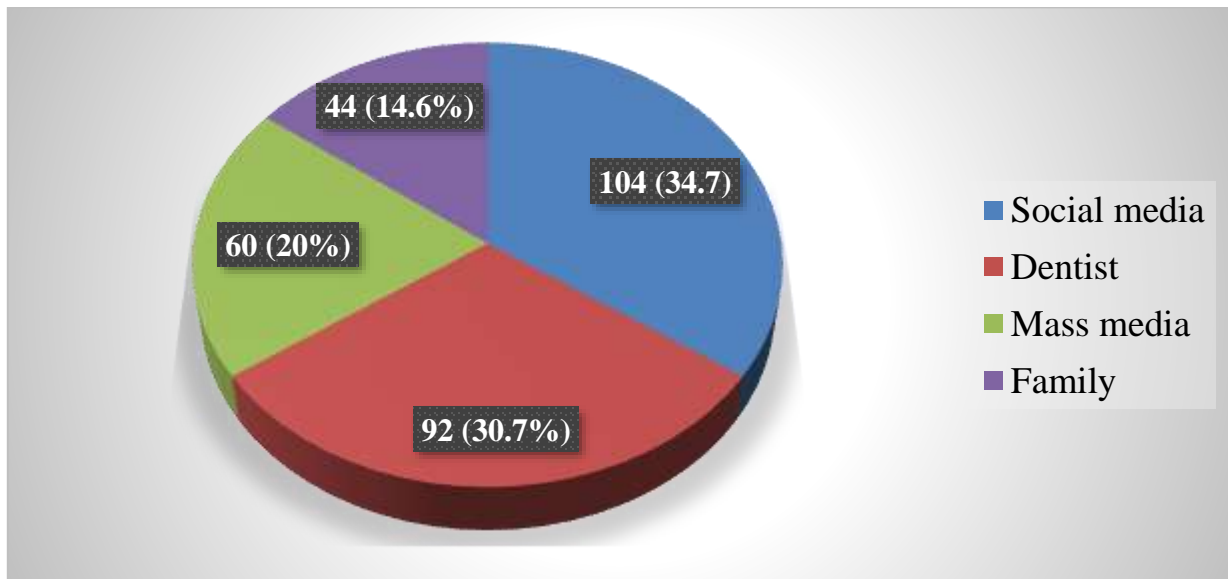


Figure 1: Source of information

The highest percentage of correct answers was related to Q1 "Using available techniques, it is possible to prevent the formation of most caries lesions" (70.3%). The lowest percentage of correct answers

was related to Q10 "It is desirable to use professional applications of fluorides for all children in areas with fluoridated water supplies" (70.3%), as shown in table 2.

Table 2: Percentages of correct answers

Questions	N (%) of correct answers
Q1: Using available techniques, it is possible to prevent the formation of most caries lesions	293 (97.7)
Q2: The quantity of sugar consumed is more important in causing canes than the frequency of sugar consumption	243 (81.0)
Q3: When brushing teeth, it is important to put little pressure on the toothbrush.	235 (78.3)
Q4: To prevent caries, it is better to brush at least twice a day.	269 (89.7)
Q5: It does not matter if we use our toothbrush for a long time	
Q6: Dental floss prevents the formation of most caries lesions	237 (79.0)
Q7: Having dental problems can lead to general health problems	225 (75.0)
Q8: Gum bleeding is a sign of periodontal disease.	263 (87.7)
Q9: Bad breath can be caused by gum disease.	247 (82.3)
Q10: It is desirable to use professional applications of fluorides for all children in areas with fluoridated water supplies	211 (70.3)

There was a significant difference between the mean of the total number of correct questions and gender and source of information (the higher mean was among

females and those who got their information from the dentists than others), as shown in table 3.

Table 3: Association between the sociodemographic characteristics and mean of the total number of correct questions



Sociodemographic characteristics of parents		Mean (SD)	P-value
Age (years)	18-30	8.2 (1.4)	0.275
	30-39	8.4 (1.2)	
	40-49	8.3 (1.3)	
	≤50	8.7 (1.0)	
Gender	Male		
	Female		
Education	Illiterate	8.2 (1.3)	0.478
	Primary school	8.3 (1.2)	
	Secondary school	8.5 (1.3)	
	College or higher	8.4 (1.2)	
Occupation	Employed	8.3 (1.3)	0.158
	Unemployed	8.5 (1.2)	
Source of information	Social media	7.7 (1.2)	0.001
	Dentist	9.1 (1.0)	
	Mass media	8.4 (1.3)	
	Family	8.5 (1.6)	

DISCUSSION

Previous studies have indicated that the level of knowledge of and attitudes towards dental health might be a potential barrier to effective oral preventive efforts⁽¹²⁾.

Social media was the main source of information for the participants, followed by dentists, mass media, and family. In comparison, another study was done in the Saudi Arabia Kingdom by Salwa et al. revealed that the dentist was the main source main of information followed by television and the internet⁽⁶⁾.

In the current study, the majority of patients answered the questions correctly. In comparison, the same results were obtained in another study that was done in by Mona et al. and revealed that most of the answers were correct⁽¹³⁾. In another study that was done by Carlos et al. in Canada, the media were the main source of dental preventive knowledge among the participants⁽¹⁴⁾. Dentists followed by schools, family, and the Internet were the main sources of information in another study that was done in Japan⁽¹⁵⁾.

Participants who got their information from the dentist had a significantly higher mean of the number of correct questions compared to others. In comparison, the same results were obtained in another study that was done by Taani in Jordan⁽¹⁶⁾

Females had a significantly higher mean of the number of correct questions than males. In comparison, the same results were obtained in another study that was done by Taani in Jordan⁽¹⁶⁾. In agreement, the same results were obtained in another study that was done by Ayano in Japan⁽¹⁵⁾.

There were no significant association between the mean of the total number of correct questions and education level, or occupation.

In contrast, another study was done in Saudi Arabia Kingdom and revealed a significant association between preventive dental knowledge and the educational level and occupation of the participants⁽¹³⁾. This might be related to other affecting factors that affect the knowledge of the participants.

CONCLUSION

Most of the participants answered correctly regarding preventive dental knowledge. The gender and source of information significantly affect the knowledge of the participants.

REFERENCES

1. Kane SF. The effects of oral health on systemic health. *Gen Dent.* 2017;65(6):30-34.
2. Su S, Lipsky MS, Licari FW, et al. Comparing oral health behaviours of men and women in the United States. *Journal of Dentistry.* 2022;122:104157.
3. Abu-Gharbieh E, Saddik B, El-Faramawi M, et al. Oral Health Knowledge and Behavior among Adults in the United Arab Emirates. *BioMed Research International.* 2019;2019:7568679.
4. Hebbal M, Ankola AV, Vadavi DV, et al. Evaluation of knowledge and plaque scores in school children before and after health education. *Dental research journal.* 2011;8(4).
5. Shah N, Mathur VP, Kathuria V, et al. Effectiveness of an educational video in



- improving oral health knowledge in a hospital setting. *Indian J Dent.* 2016;7(2):70-75.
6. AlSadhan SA, Darwish AG, Al-Harbi N, et al. Cross-sectional study of preventive dental knowledge among adult patients seeking dental care in Riyadh, Saudi Arabia. *The Saudi Journal for Dental Research.* 2017;8(1-2):52-57.
 7. John JB, Asokan S, Aswanth K, et al. Dental caries and the associated factors influencing it in tribal, suburban and urban school children of Tamil Nadu, India: a cross sectional study. *Journal of public health research.* 2015;4(1):jphr. 2015.2361.
 8. Das D, Menon I, Gupta R, et al. Oral health literacy: A practical strategy towards better oral health status among adult population of Ghaziabad district. *J Family Med Prim Care.* 2020;9(2):764-770.
 9. Al-Darwish MS. Oral health knowledge, behaviour and practices among school children in Qatar. *Dent Res J (Isfahan).* 2016;13(4):342-353.
 10. Riad A, Buchbender M, Howaldt H-P, et al. Oral health knowledge, attitudes, and behaviors (KAB) of German dental students: descriptive cross-sectional study. *Frontiers in medicine.* 2022;9:852660.
 11. Attaullah KM, Khan A. Oral health related knowledge, attitude and practices among patients-a study. *Pak Oral Dent J.* 2010;30(1):186-191.
 12. Angst L, Nüesch N, Grandjean ML, et al. Caries management using silver diamine fluoride and providing domiciliary dental care for dependent older adults: A qualitative study of Swiss dentists. *Community Dentistry and Oral Epidemiology.* 2022.
 13. Rajeh MT. Gender Differences in Oral Health Knowledge and Practices Among Adults in Jeddah, Saudi Arabia. *Clinical, Cosmetic and Investigational Dentistry.* 2022:235-244.
 14. Quiñonez CR, Locker D. Public opinions on community water fluoridation. *Canadian Journal of Public Health.* 2009;100:96-100.
 15. Taniguchi-Tabata A, Ekuni D, Mizutani S, et al. Associations between dental knowledge, source of dental knowledge and oral health behavior in Japanese university students: A cross-sectional study. *PloS one.* 2017;12(6):e0179298.
 16. Taani DQ. Periodontal awareness and knowledge, and pattern of dental attendance among adults in Jordan. *International dental journal.* 2002;52(2):94-98.