

The Demographic Characteristics and Oral Diseases Among Patients Attending the Dental Clinics / College of Dentistry, University of Hilla, Babylon, Iraq

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Abstract

The level of patient knowledge is closely associated with oral conditions such as caries, periodontitis, and xerostomia, which remain frequently observed. Nevertheless, the influence of factors including occupation, place of residence, gender, awareness, and general attitudes toward oral health has not been thoroughly clarified. The purpose of this study was to assess public understanding and awareness of the relationship between oral and general health, along with their attitudes toward oral hygiene practices. To achieve this, a structured questionnaire with multiple-choice items was administered to patients visiting the dental clinics of the College of Dentistry, University of Hilla, Babylon, Iraq. A total of 259 valid responses were obtained and analyzed. The results showed that the four most common oral diseases reported were caries, gingivitis, plaque, and calculus. Most participants (71.08%) resided in urban areas, and within this group, 63.45% demonstrated little to no awareness of oral health. Regarding occupation, students and housewives represented the largest proportion of respondents. In summary, although the participants appeared to be more knowledgeable about complications related to systemic conditions, their awareness of oral health issues was comparatively limited. Thus, continuous and effective interaction between patients and dental professionals is essential to improve public knowledge and promote better oral health practices.

Keywords: Oral Health, Oral Diseases, Patient's Knowledge, Awareness, Attitude, Practice.

1. Introduction

Oral diseases constitute a major public health issue because of their profound medical and economic consequences, which significantly impair the quality of life of those affected [1, 2, 3]. The most frequently encountered and clinically important conditions include dental plaque, dental caries, periodontal disease, tooth loss, candidiasis, halitosis, and oral malignancies [4, 5, 6, 7]. Although largely preventable, these disorders continue to occur at high rates, highlighting ongoing social and economic disparities in access to prevention and treatment [8, 9, 10]. Being chronic in nature, oral diseases are heavily shaped by social determinants and tend to disproportionately impact children from low-income families, socially marginalized groups, and older adults who often face restricted access to dental care services [11, 12, 13].

Because treatment costs frequently surpass available resources, many cases remain untreated. The consequences of long-term untreated oral diseases are often serious, manifesting as constant pain, systemic infections, reduced quality of life, missed school days, disrupted family dynamics, and diminished work performance [14, 15]. Moreover, the economic burden of treatment poses considerable pressure on households as well as healthcare systems. Consequently, oral diseases are widely recognized as a global health challenge, with their increasing prevalence in several regions often linked to broader social, economic, and commercial transformations [16, 17]. According to this background, the current study aims to outline the prevalence and impact of oral diseases, analyze their social and commercial determinants, and explore the reasons behind their continued marginalization in global health policies.

2. Methods

More specifically, this paper seeks to evaluate the level of knowledge and awareness among patients visiting the dental clinics at the College of Dentistry, University of Hilla, Babylon, Iraq, with a particular focus on their understanding of oral health and its related conditions. After confirming the feasibility of the research project, an observational retrospective cross-sectional survey was conducted between October 2024 and March 2025 at the dental clinics of the College of Dentistry, University of Hilla, Babylon, Iraq. The study included 259 participants, comprising 133 males and 126 females, with an age range of 6 to 72 years. A structured, multiple-choice questionnaire was designed and distributed to patients visiting the college's dental clinics. Ethical approval was obtained prior to data collection, and all completed questionnaires were retrieved and analyzed to evaluate participants' knowledge and awareness of oral health and oral diseases. Information regarding demographic factors (age, gender, occupation, awareness, and place of residence) as well as clinical features (oral health status, symptoms, and types of oral diseases) was documented. Only patients with complete medical records were considered eligible for inclusion. Data were analyzed using frequency and distribution tables.

3. Results

A satisfactory overall response rate was obtained, with participants' ages ranging from 6 to 72 years. The largest proportion of infections occurred in the 19–30-year age group (72 cases; 27.79%), whereas the smallest was noted among those aged 61–72 years (19 cases; 7.34%). Regarding gender, males constituted slightly more than half of the sample (133; 51.35%), while females accounted for 126 (48.65%), with the overall mean age calculated at 47 years. In terms of place of residence, most respondents were from urban areas (185; 71.43%), compared to 74 individuals (28.57%) from rural communities (**Table 1**). Evaluation of knowledge and awareness revealed that a large segment of the participants (164; 63.32%)

demonstrated poor understanding of oral health. Occupational analysis indicated that employed participants reported the highest frequency of oral infections (74; 22.4%). Overall, these outcomes reinforce the view that oral health is a pressing public health issue, exerting considerable influence on healthcare expenditures, quality of life, and vulnerability to further complications and systemic diseases. The study also revealed a high percentage of poor oral health status among patients, recorded in 124 cases (47.88%). **Table 2** presents the distribution of oral diseases—namely caries, plaque, calculus, and gingivitis—across different demographic groups. Among these conditions, caries was the most frequently reported, while gingivitis showed the lowest prevalence across all demographic categories.

4. Discussion

Epidemiological research plays a vital role in identifying and analyzing the risk factors that contribute to the development of diseases within populations. It is widely recognized that lifestyle habits, ethnic background, geographical distribution, and socioeconomic conditions are key determinants shaping the incidence and prevalence of various health disorders [18, 19]. Moreover, the economic and social impact of these diseases can be considerable, often intensifying their severity and, in certain cases, leading to life-threatening outcomes. The results of the current study highlight that increasing knowledge alone is not sufficient; it must be accompanied by positive changes in attitudes and practices. Oral health, in particular, stands out as a significant public health issue, given its profound influence on healthcare expenditure, overall well-being, and quality of life [20, 21, 22].

5. Conclusions

This study revealed a noticeable gap in patients' attention to oral health. The results demonstrated a clear link between patient knowledge and oral health status, emphasizing the importance of raising awareness at the community level. The low

level of awareness regarding oral hygiene observed among participants underscores the urgent need for well-structured interventions. To address this, an integrated health program should be designed, involving coordinated efforts between medical and dental professionals. In addition, patients must be encouraged to attend routine dental visits, as regular professional guidance is essential for maintaining and improving oral health outcomes.

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Appendix

Table (1): The Demographic Characteristics of Patients.

Demographic Characteristics	Frequency (No.)	Percentage (%)
Age		
6-18 years	50	19.31%
19-30 years	72	27.79%
31-45 years	58	22.39%
46-60 years	60	23.17%
61-72 years	19	7.34%
Gender		
Male	133	51.35%
Female	126	48.65%
Awareness		
Poor	164	63.32%
Good	95	36.68%
Occupation		
Employee	74	22.4%
Student	71	27.4%
Worker	56	21.6%
Housewife	58	28.6%
Residence		
Urban	185	71.43%
Rural	74	28.57%
Oral health		
Poor	124	47.88%
Fair	101	38.99%
Good	34	13.13%

Table (2): Oral Diseases and Demographic Characteristics of the Participants

Demographic Characteristics	Types of the Oral Diseases				
	Caries No (%)	Plaque No (%)	Calculus No (%)	Gingivitis No (%)	Total No (%)
Age					
6 - 18 years	21 (14.67 %)	9 (3.47 %)	9 (3.47 %)	4 (1.54 %)	43 (16.5)
19 - 30 years	37 (22.78 %)	21 (8.11 %)	15 (11.58 %)	5 (1.93 %)	78 (30.1)
31 - 45 years	30 (17.76 %)	11 (4.25 %)	10 (8.49 %)	7 (2.70 %)	58 (22.4)
46 - 60 years	23 (18.53 %)	15 (6.56 %)	11 (10.04 %)	6 (2.32 %)	55 (21.3)
61 - 72 years	11 (4.25 %)	5 (1.93 %)	5 (1.93 %)	4 (1.54 %)	25 (9.7)
Gender					
Male	53 (40.15 %)	19 (9.27 %)	23 (16.60 %)	16 (4.63 %)	111 (42.9)
Female	81 (38.61 %)	21 (15.83 %)	28 (19.31 %)	18 (5.41 %)	148 (57.1)
Awareness					
Poor	62 (4.25 %)	39 (15.06 %)	50 (21.62 %)	18 (6.95 %)	169 (65.3)
Good	22 (35.52 %)	24 (13.14 %)	36 (13.90 %)	8 (3.09 %)	90 (34.7)
Occupation					
Employee	40 (21.24 %)	18 (8.11 %)	10 (3.86 %)	5 (1.93 %)	73 (28.2)
Student	21 (16.60 %)	12 (4.63 %)	11 (10.04 %)	6 (9.32 %)	50 (19.3)
Worker	31 (15.83 %)	20 (8.88 %)	13 (8.88 %)	8 (3.09 %)	72 (27.8)
Housewife	20 (23.55 %)	15 (5.79 %)	21 (10.04 %)	8 (3.09 %)	64 (24.7)
Residence					
Urban	65 (53.67 %)	41 (15.83 %)	34 (24.71%)	17 (6.56 %)	157 (60.6)
Rural	42 (23.95 %)	23 (12.74 %)	28(10.81%)	9 (3.47 %)	102 (39.4)