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Original Article

Oral Health Related Quality of Life Among Libyan Adults: A Cross-Sectional Study

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ABSTRACT

Background: In Libya, assessments of oral health needs were entirely based on traditional clinical measures which failed to identify the perceived impact of oral disorders within population.

Objectives: This study intended to study the association of Oral Health Related Quality of Life (OHQoL) and some of the demographic factors and to reveal out the effect of oral health on the life of Libyan adults among Libyan adults accessing private and government health services.

Subjects and Methods: A random sample of 778 adults aged 18-65years, from the outpatient department of private and governmental clinics/hospitals in Benghazi, were subjected to structured questionnaire comprising the Arabic version of the UK-Oral Health Related Quality of Life (OHQoL-UK).

Results: 63.5% of the participants were females, 36.5% were males. Mean age of the participants were 35 SD±12 years. 53.1% of the respondents were from private clinics and hospitals, while 46.9% were from governmental hospitals. There were no significance differences between both clinical setting attainers regarding physical, psychological and social aspects.

Conclusion: The present research found that Libyan adults do not perceive many effects and only perceive moderate impact on their lives, as influenced by oral health. The present study also found that the demographic characteristics of gender influenced their perceptions of effects and impact on oral health.

Keywords: Oral Health, Quality of Life, Libyan adults.

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INTRODUCTION

Contemporary notions of health have suggested that oral health can be defined through its impact on physical, social, and psychological wellbeing ⁽¹⁾. Oral health issues that severely disrupt the physical, social, and psychological functioning of individuals are critical concern when evaluating oral health. It has also been asserted that dentistry's largest contribution to human beings is its ability to enhance quality of life ⁽²⁾. Chronic diseases including caries, obesity, and diabetes have been associated with oral

health, hence affecting overall health and quality of life ⁽³⁾.

Oral health can affect human beings in both a physical and psychological manner; therefore, it can influence growth, satisfaction, enjoyment, speech, taste, socialization along with their overall wellbeing ⁽³⁾. The occurrence of pain, discomfort, infections, disruption in eating and sleeping patterns and a greater risk for treatment and hospitalization can all diminish quality of life ⁽⁴⁾.

Oral health related quality of life (OHRQoL) is defined as "the impact of oral disease and disorders on aspects of everyday life that a patient or person values, that are of sufficient magnitude, in terms of frequency, severity or duration to affect their experience and perception of their life overall" ⁽⁵⁾. Subjective evaluation of OHRQoL has become an integral part of clinical practice and research, which allows a multidimensional assessment of health that goes beyond the traditional physician centred approach of health care to a patient centred one that includes a person's social and emotional experience

and physical functioning. Therefore, it enables a better understanding of treatment needs and outcomes from the individual as well as population perspective ⁽⁶⁾. So doing can have important implications for patient's care, community based programs, clinical research, and public health policy ⁽⁷⁾.

Surveys to assess oral health treatment needs are usually carried out using clinical indices, the so-called normative approach to define needs. However, a broader socio-dental system of dental needs assessment incorporating the evaluation of OHRQoL has been developed, which decreases the estimates of conventionally assessed dental treatment needs and introduced a broader approach to care.

SUBJECTS AND METHODS

Sample selection

A descriptive, cross-sectional study was carried out in Benghazi the second largest city in Libya where the target population was Libyan adults aged 18-65 years, attending private and governmental health care setting.

Simple random technique was used to select the health care settings. Twelve private clinics and two governmental hospitals were selected according to geographical distribution to conduct the study. The systematic random method was used to select the participants from the selected health care settings. A total of 778 participants were selected.

Hospital visitors were approached at the waiting rooms and briefed about the purpose and process of the study before being invited to take part in the study at their own will with no incentives on offer. Individuals younger than 18 years of age or seeking dental treatment were excluded, because we wanted to assess the construct of oral health related quality of life (OHQoL) in a mature dental population with no acute oral problems in order to obtain a baseline picture of oral health needs and priorities.

Data collection instrument:

The original English version of the questionnaire had been translated in Arabic with little modification to the original text to make it culturally acceptable. The questionnaire has two sections; the first section is their demographic profile. The demographic details gathered include gender, age, employment status, educational attainment and the kind of the hospitals. Education attainment were classified into

three categories; low (illiteracy and primary school) medium (preparatory and secondary school) high (university and higher education). The second section of the questionnaire has 16 self-completion questions seeking information on the OHQoL. UK© by McGrath et al. 2000. ⁽⁸⁾. Close-ended questions were used, each of which having fixed answers. The respondents were to choose from, 5-point Likert scales that is used to gauge the effect statements, with the following substantive interpretations: 5 – very good; 4 – good; 3 – not much; 2 – bad; and 1 – very bad. The middle rating interpretation has been changed from “none” to “not much” since this is more descriptive of a neutral status on the effects of oral health. The following mean ranges were used for interpretation: 1.00 - 1.49 – very bad; 1.50 - 2.49 – bad; 2.50 - 3.49 – none; 3.50 - 4.49 – good; and 4.50 - 5.00 – very good. The questionnaire was pre-tested among a group of medical hospital outpatients and university students before it was administered to the study participants.

Data analysis: Statistical analysis

Each questionnaire received an individual identification number to permit checking for any inconsistent responses. All questionnaires were included and the data was entered on Microsoft office Excel 2013 database and checked for entry errors than coded. The statistical Package for Social Science version 17 (SPSS Inc. Chicago, IL, USA) ⁽⁹⁾, was utilized for statistical analysis of the results. Descriptive statistics were displayed as frequencies and percentages for qualitative variables. In addition, chi-square test was used, significance level was set at 0.05.

RESULTS

less than two third (63%) of the participants were females and 36% were males. more than half (58%) of the participants aged 25-45 years, nearly quarter (24.8%) aged 18-24 years ,and 16.5% of them were above 45years. (53.1%) of the participants were selected from private hospitals and clinics, while 46.9% were selected from governmental hospitals. A higher proportion of the participants (51.9%) had high educational level, those who had medium level of education represented 39.5 % and only 8.6 % had low educational level (Table 1) .

Table 1: The Demographic variables of participants.

Types of the health setting	Frequency	Percent
Private	413	53.10
Governmental	365	46.90
Age groups in years		
<25	148	24.80
25-45	457	58.70
>45	128	16.50
Educational level		
Low	67	8.60
Medium	307	39.50
High	404	51.90

Oral health does not have much effect on the quality of the physical facet of their lives. The physical effect include; eating or enjoyment of food ($\bar{X} \pm SD = 2.81 \pm 1.270$), appearance ($\bar{X} \pm SD = 2.66 \pm 1.247$), speech ($\bar{X} \pm SD = 2.77 \pm 1.97$), general health ($\bar{X} \pm SD = 2.78 \pm 1.187$), breath odour ($\bar{X} \pm SD = 2.66 \pm 1.263$), and comfort ($\bar{X} \pm SD = 2.78 \pm 1.197$). Moreover, oral health does not have effects on Libyan adults overall quality of their physical lives of ($\bar{X} \pm SD = 2.99 \pm 0.73$) (Table 2).

Table 2: Descriptive statistics of physical effects of the oral health of the participants, Benghazi -2011.

Physical effects	Mean $\bar{X}$	Std. Deviation SD
Eating or enjoyment of food	2.81	1.27
Appearance	2.66	1.24
Speech	2.77	1.97
General health	2.78	1.18
Breath odour	2.66	1.26
Comfort	2.78	1.19
Over all	2.99	0.73

Oral health does not have an effect on the quality of the psychological aspect of their lives. These cover carefree manner/lack of worry ($\bar{X} \pm SD = 2.91 \pm 1.15$); sleep ($\bar{X} \pm SD = 2.77 \pm 1.19$); confidence ($\bar{X} \pm SD = 2.76 \pm 1.18$); mood ($\bar{X} \pm SD = 2.87 \pm 1.15$); and personality ($\bar{X} \pm SD = 2.84 \pm 1.15$). The overall psychological effect of oral health was rated as not being affected by oral health ($\bar{X} \pm SD = 3.04 \pm 0.76$) (Table 3).

Table 3: Descriptive statistics of Psychological effects of the oral health of the participants, Benghazi - 2011.

Psychological effects	Mean $\bar{X}$	Std. Deviation SD
Sleep	2.77	1.19
Confidence	2.76	1.18
Carefree manner/lack of worry	2.91	1.15
Mood	2.87	1.15
Personality	2.84	1.15
Over all	3.04	0.76

The outcomes of the social effects of OHQoL were not affected by their social lives. The mean score and standard deviation of: social life was ($\bar{X} \pm SD = 2.85 \pm 1.16$), marriage ($\bar{X} \pm SD = 2.71 \pm 1.13$), smiling or laughing ($\bar{X} \pm SD = 2.66 \pm 1.22$), work or ability to do their usual jobs ($\bar{X} \pm SD = 2.89 \pm 1.16$), and finances was ($\bar{X} \pm SD = 2.90 \pm 1.16$). The overall, social effect of OHQoL was not affected by oral health ($\bar{X} \pm SD = 2.94 \pm 0.71$) (Table4).

Table 4: Descriptive statistics: of Social effects of the oral health of the participants, Benghazi 2011.

Social effect	Mean $\bar{X} \pm SD$	Std. Deviation SD
Social life	2.85	1.16
Marriage	2.71	1.13
Smiling or laughing	2.66	1.22
Work or ability to do your usual jobs	2.89	1.16
Finances	2.90	1.16
Over all	2.94	0.71

DISCUSSION

To the best of our knowledge, this study is the first attempt at providing some insights into how oral health can affect the quality of life among adults in Benghazi ,Libya.

Oral health does not have any impact on adults social lives including the facets of social life, marriage, smiling or laughing, work or ability to do usual jobs and finances. These outcomes suggest that Libyan adults overall do not perceive much impact from oral health. These finding were consistent with the assertion of Eldharat et al ⁽¹⁰⁾ .who reported that Libyans generally had poor oral health, both as adolescents and adults suffered from halitosis which inevitably hinders their social lives.

Libyan adults, however, do not perceive much effect from oral health on their physical lives. This was in line with the results of Inukai et al ⁽¹¹⁾, who showed that psychological discomfort, functional limitation, physical pain and lowered life satisfaction occurring to a lesser extent. The implication is that participants who had oral disorders not only suffer, but had difficulty chewing; other aspects of their life are also affected.

The fact that the educational level had no effect on the reported quality of life of the individual in the current study was in disagreement with a study conducted in UK ⁽¹²⁾. Moreover, the outcomes of the current study do not support the finding of Lahti-Suominen-Taipale and Hausen ⁽¹³⁾, they found that education levels were linked to oral problems in the case of younger individuals. The study of Espinoza et al ⁽¹⁴⁾ showed that adults with primary education (or less) were more likely than their tertiary-educated counterparts to report problems speaking, trouble or pain discomfort in eating with others, and interference with activities of daily living. The number of teeth with untreated caries was positively associated with impaired OHRQoL, and the number of remaining teeth was negatively associated with it. The different results from our study compared to those of the researchers in other countries may be due to the differences in the way of thinking, education, and socio economic factors. Where more than half of the participants had high education level.

Contrary to the present results of no significant relationship between education and OHRQoL, Tsakos et al ⁽¹⁵⁾, found a clear educational gradient in oral impacts as measured by the Geriatric Oral Health Assessment Index; the lower the educational level the worse the oral health perceptions. An inverse graded association between education and oral impacts on daily performances was also reported from the English Longitudinal Survey of Aging,

CONCLUSIONS

Overall, it can be said that the Libyan community remains to be mostly lacking knowledge of oral diseases and how to treat them, and therefore they need to have more dental professionals . It cannot possibly be denied that oral health is a major concern of most Libyans nowadays. One strength of the methodology was the use of an adequate number of respondents. However, The participants were selected from clinics waiting room, which could make some of them in a hurry or unwilling to participate. Despite this limitation, this study has contributed by being the first study to explore OHQoL in Libyan adults. It will be worthwhile to further study the influence of individual and environmental factors on OHQoL. Future studies should consider oral clinical examination to link the oral health status with the OHQoL with follow-up periods.

REFERENCES

1. Locker, D., Matear, D., Stephens, M., Jokovic, A. Oral health-related quality of life of a population of medically compromised elderly people. *Community Dent Health*.2002; 19: 90-7.
2. Romney, D., Brown, R., Fry, P. Improving the quality of life: prescriptions for change. *J Indian Soc*.1994; 33,:237-72.
3. Naito, M., Yuasa, H., Nomura, Y., Nakayama, T., Hamajima, N.,Handa, N. Oral health status and health-related quality of life: a systematic review. *J Oral Sci*.2006; 48: 1-7.
4. Motegi, E., Hatch, J.P., Rugh. J.D., Yamaguchi, H. Health-related quality of life and psychosocial function 5 years after orthognathic surgery. *American Journal of Orthodontics and DentofacialOrthopaedics*.2003; 124:138-43.
5. Locker, D. Allen, F. What do measures of ‘oral health-related quality of life’ measure?. *Community Dent and Oral Epidemiol*. 2007; 35:401-411.
6. Awad M, Al-Shamrany M, Locker D, Allen F, Feine J. Effect of reducing the number of items of the Oral Health Impact Profile on responsiveness, validity and reliability in edentulous populations. *Community Dent Oral Epidemiol*. 2008; 36:12–20.
7. Sischo L, Broder HL. Oral health-related quality of life: what, why, how, and future implications. *J Dent Res*. 2011; 90:1264–70.
8. McGrath C, Bedi R: An evaluation of a new measure of oral health related quality of life OHQoL-UK(W). *Community Dent Oral Epidemiol* 2001, 18:138-143.
9. SPSS Inc. Released 2008. SPSS Statistics for Windows, Version 17.0. Chicago: SPSS Inc.
10. . Eldarrat, A., Alkhabuli, J., Malik, A. The prevalence of self-reported halitosis and oral hygiene: practises among Libyan students and office workers. *Libyan J Med*. 2008 ;1:170-6.

11. Inukai, M., John, M., Igarashi, Y., and Baba, K. Association between perceived chewing ability and oral health-related quality of life in partially dentate patients. *Health and Quality of Life Outcomes*, 2010 ;8: 118.
12. McGrath C, Bedi R. A study of the impact of oral health on the quality of life of older people in the UK findings from a national survey. *Gerodontology*.1998; 15:93-8.
13. Lahti, S., Suominen-Taipale, L., Hausen, H. Oral health impacts among adults in Finland: competing effects of age, number of teeth, and removable dentures.*Eur J Oral Sci*.2008; 116:260–6.
14. Espinoza, I., Thomson, M., Gamonal, G., Arteaga ,O., Disparities in aspects of oral-health-related quality of life among Chilean adults. *Community Dent Oral Epidemio*. 2013; 41, 242–250.
15. Tsakos, G., Marcenes, W., and Sheiham, A. The relationship between clinical dental status and oral impacts in an elderly population. *Oral Health and Preventive Dentistry*.2004; 2, 211–220.