



Iranian general practitioners' knowledge, attitude and behavior regarding oral ulcerative lesions

Mehrnaz Dezfouli¹, Fatemeh Rashidi Meybodi^{2,*} and Hajar Shekarchizadeh³

¹Dental School, Isfahan (Khorasgan) Branch, Islamic Azad University, Isfahan, Iran.

²Department of Oral Medicine, , Dental School, Isfahan (Khorasgan) Branch, Islamic Azad University, Isfahan, Iran.

³Department of Community Oral Health, Dental School, Isfahan (Khorasgan) Branch, Islamic Azad University, Isfahan, Iran.

ARTICLE INFO

Article history:

Received: 7 May 2016;

Received in revised form:

9 June 2016;

Accepted: 14 June 2016;

Keywords

knowledge,
Attitude,
Behavior,
Oral ulcers,
General practitioners,
Iran.

ABSTRACT

Oral ulcers are highly common lesions in the population. They are painful and annoying, although most of them would be healed with no significant consequence. It is important to recognize these lesions on time and do the right sorts of treatment because of the risk of cancers or some other critical diseases. Understanding this fact that the first contact for most of patients is usually with a general medical practitioner, we decided to evaluate general practitioners' knowledge, attitude and behavior regarding oral ulcerative lesions. This study was a cross-sectional, self-administered, questionnaire survey which was done among 65 general practitioners in Isfahan, Iran. The questionnaire evaluated the knowledge, attitude and behavior of general practitioners regarding oral ulcerative lesions. Chi-square test, Pearson's Correlation Coefficient and t-test served for statistical analysis done by SPSS20 software. The physicians' knowledge score was almost low, especially clinical knowledge (mean score = 33.4%, SD: 15.3). The majority of general practitioners (89.2%) reported that they are more knowledgeable in this field and almost 70% of them showed a willingness to participate in further educational programs about oral lesions. There was a significant relationship between the attitude and age ($p=0.001$) and duration of practice ($p=0.002$). But there was no significant relationship between the numbers of examined patients. General practitioners' behavior scores regarding oral lesions were rather low. A significant relationship between the behavior and age ($r=0.271$, $p=0.03$) and duration of practice was observed. Lack of knowledge of General practitioners' and poor performance about oral lesions besides their willingness to get higher education in this field, revealed a great need for planning to include appropriate additional courses to the curriculum of the medical graduates

© 2016 Elixir All rights reserved.

Introduction

Oral lesions are widely preventable and costly to treat; but they are preventable by early diagnosis [1]. Most lesions have almost a typical skin manifestation while they appear not particular on the oral mucosa. This fact is the consequence of oral mucosa specific condition that differs from skin. Being thin and vulnerable, oral lesions such as vesicles and bullae can break and expand rapidly and becoming ulcers and then to be infected by the oral flora [2].

Oral ulcers occur one out of five people; so they are highly common lesions in the population. Being painful and annoying, these lesions can bother patients while chewing and swallowing that it could consequently result of losing weight by patients. It is important to diagnose and specify these lesions on time and then follow the right sorts of treatments regarding the risk of cancers or some other critical diseases [3].

In some cases, routine oral clinical examinations and patients' medical history may be useful in primary diagnosis, but obviously it is not enough in order to make a net diagnosis and to do the right treatment [2].

Being mostly asymptomatic until an advanced stage, most oral lesions are left undiagnosed and untreated [4]. Lesions of the oral cavity may also be complicated by coexistent of

systemic disease or may be the direct result of such disease. In spite of that, several oral lesions are oral manifestations of systemic diseases such as diabetics, pemphigus and so on, therefore it is important to detect these lesions early and correctly before their systemic manifestations occur [2].

Considering all these facts, performing routine oral examinations is of extreme importance for the early detection and the treatment of a gamut of oral and non-oral diseases.

General practitioners are almost meant to be the first medical contact for most of the patients [5]. Oral examination is an accepted part of general practitioners' professional duties and can remarkably reduce the morbidity and mortality rate of patients, suffering from oral diseases if this examination be done carefully and correctly.

Not much research on general practitioners' knowledge, attitude and behavior is done in the Eastern Mediterranean region; although some studies have shown low levels of OHC¹ knowledge, attitudes, and practice amongst physicians [6, 7].

A majority of the doctors who were studied by Morgan et al (84%), declared that examining older patients' mouth was

¹ Oral Health Care

important, although only 19% ($2p=0.0001$) of all participants routinely did the required examinations. Amongst all, 77% of doctors were not satisfied with their educational courses at university regarding oral examinations. The importance of the situation is evident considering an early squamous carcinoma was misdiagnosed by 80% of the doctors ($2p=0.0001$) [5].

It is of high value for general practitioners to be educated well enough to be able to detect oral lesions and conditions correctly in order to prevent malignant changes [8]. So it is obvious that there is a necessity to focus on this crucial issue. This study is done to evaluate the knowledge, attitude and behavior of general practitioners regarding oral ulcerative lesions, as an important group of oral lesions. Using the gained information, it was planned to suggest a series of appropriate additional academic courses for the curriculum of the medical graduates, so as to improve oral health of population.

Materials and Methods

Subjects

We conducted a cross-sectional survey of Iranian general practitioners in Isfahan, in April 2016. The studying of population comprised 65 general practitioners working in public or private centers in Isfahan, who took part in continuing medical education (CME) held By Isfahan University of Medical Sciences. After a brief explanation of the study, we asked all volunteers to fill out a questionnaire simultaneously. Completing the questionnaire took around 20 minutes.

Self-administered questionnaire

A self-administered questionnaire was employed in order to require information about participants' knowledge, attitude and behavior regarding oral ulcerative lesions. Final questionnaire consisted of 4 parts. The first part asked participants about their socio-demographic characteristics including age, gender, date of graduation, and working profile (public and/or private practice). The second part included 8 questions to evaluate general practitioners' behavior regarding oral ulcerative lesions. The third part was about practitioners' knowledge of oral ulcerative lesions included two domains: academic knowledge, 15 questions, and clinical knowledge, 10 questions. The last part of the questionnaire comprised 10 questions on participants' attitude regarding oral ulcerative lesions.

Validity and reliability of the questionnaire was assessed prior to the study. A group of experts in oral medicine designed the questionnaire and revised per their recommendations (Delphi test). Reliability of the questionnaire was assessed through a pilot study (Cronbach's alpha for behavior = 0.73, for academic knowledge=0.83, for clinical knowledge=0.80, and for attitude=0.72).

Ethical approval

Ethical clearance was granted by Ethics Committee of Islamic Azad University of Isfahan. Participation in the study

was voluntarily and all participants provided their informed consent. All of participants' information kept confidentiality.

Statistical analysis

The data was analyzed with SPSS² for Windows OS. Student's t-test and Pearson's correlation coefficient served for statistical analysis (level of significance < .05).

Results

The samples consisted of 65 general practitioners that 60% of them were men. Average age of participants was 41.5 (SD 11.3, range ...). The mean duration of their practice was 13.9 years (SD 10.5, range), and most of them were graduated between 1992 and 2009. Demographic characteristics and working profile of the general practitioners are shown in the Table-1.

Table 1. Demographic characteristics of general practitioners (n=65).

Variable	Number	Percentage
Gender (n, %)		
Male	39	60
Female	26	40
Total	65	100
Graduation year (n, %)		
1957-1991	6	9.2
1992-1999	26	40
2000-2009	25	38.5
2009-2012	8	12.3
Total	65	100

The proportion of participants working at public medical centers (36.9%), private centers (32.3%) or both centers (30.8%) was reported rather equably.

The mean number of patients visited by each participant was 40 patients a day, and the mean number of visited patients with oral lesions was 20 patients a month.

The mean scores of the general practitioners' knowledge, attitude, and behavior regarding oral ulcerative lesions are shown in the Table-2.

Table 2. The mean scores of the general practitioners in oral ulcerative lesions (n=65).

Variable	Percentage	Standard deviation
Academic knowledge (% , SD)	45.4	16.4
Clinical knowledge (% , SD)	33.4	15.3
Attitude (% , SD)	65.8	12.2
Behaviour (% , SD)	42.8	17.5

No significant association revealed between participants' gender and their academic ($p=0.18$) and clinical knowledge,

² Version 18.0/PC; SPSS, Chicago, IL, USA

Table 3. The mean score of academic knowledge , clinical knowledge , attitude and practice of physicians by sex (n=65)

Score	Men		Women		Independent t test	
	Quantity	Percentage	Quantity	Percentage	t	p
Academic knowledge	47.7	13.8	42.1	19.3	1.36	0.18
Clinical knowledge	32.3	12.9	35.4	18.4	0.79	0.43
Attitude	66.02	10.8	65.9	14.1	0.05	0.96
Behaviour	43.6	16.7	41.7	18.5	0.42	0.67

Table 4. Pearson's Correlation Coefficient between academic knowledge, clinical knowledge, attitude and behavior with Quantitative variables

Score	Age		Years of practice		Number of patients a day	
	r	p	r	p	r	p
Academic knowledge	0.013	0.92	0.012	0.93	0.036	0.77
Clinical knowledge	0.069	0.59	0.013	0.92	0.024	0.85
Attitude	0.398	0.001	0.386	0.002	0.064	0.61
Behaviour	0.271	0.03	0.276	0.02	0.134	0.29

($p=0.43$), attitude ($p=0.96$), and practice ($p=0.67$) in terms of oral ulcerative lesions (table-3).

We found no significant association between physicians' academic and clinical knowledge and also their ages, durations of practice, and the numbers of patients who visited during a day ($P > 0.05$), regarding PCC. (Table-4).

A significant association exists between the attitude of physicians and their ages and also the durations of their practice, regarding PCC, in addition, a significant association revealed between their practice and their ages, durations of practice, regarding PCC. However, we found no significant association between the number of patients have been visited per day and physicians' attitude and practice regarding PCC. (Table-4).

Majority of general practitioners (89.2%) reported a need for specific academic courses about oral medicine for medical students; as high as 73.8% preferred CME in oral medicine compared with educational materials (booklet or CD, ...) (38.5). To increase their knowledge as it is shown in the Table 5.

Table 5. preference way for increasing their present knowledge (n=65)

Variable	Number	Percentage
Academic courses at university (n, %)	36	55.4
CME (n, %)	48	73.8
Clinical training courses (n, %)	38	58.5
Providing educational materials (booklet or CD, ...)	25	38.5

About 38.5% of the participants reported dentists or dental specialists as primarily responsible for exploratory examination of oral lesions. On the other hand, 40% believed in general practitioners, 16.9% in ENT specialists, and 4.6 in dermatologists as primarily responsible for exploratory examination.

About 30.8% of the participants reported dentists as primarily responsible for diagnosis the signs and symptoms of oral lesions. Furthermore 44.6% believed in general practitioners, 15.4% in ENT specialists, 4.6% in oral medicine specialists and 4.6% in other medical groups as primarily responsible for diagnosis the signs and symptoms of oral lesions.

About 16.9% of the participants reported dentists as primarily responsible for oral lesions treatment. On the other hand, 20% believed in general practitioners, 35.5% in ENT specialists, 21.5 % oral medicine specialists and 6.1% chose other medical groups as primarily responsible for oral lesions treatment.

Discussion

Despite advances in dental treatment and care, there are serious disparities in oral health related knowledge and practice amongst general practitioners. General practitioners could have a positive influence on oral health outcomes in vulnerable populations if they were trained and educated well enough to recognize oral lesions in time; since most oral

lesions are highly preventable due to early intervention. However, studies have shown that physicians lack the knowledge to promote oral health in their patients and detect oral lesions accurately.

This cross-sectional survey was conducted to measure general practitioners' knowledge, attitude and behavior regarding oral ulcerative lesions. The present study showed a lack of sufficient oral health knowledge amongst general practitioners, considering the mean score of academic knowledge (45.4%, SD: 16.4) and the mean score of clinical knowledge (33.4%, SD: 15.3). This is similar to findings of studies in Saudi Arabia, Italy, Canada, USA and Iran [6-8, 9, 10, 11, and 12]. Our findings showed that mean score for clinical knowledge was significantly lower than academic score that reveals the great necessity for appropriate clinical trainings along with academic courses.

The general practitioners had generally positive attitude towards oral medicine (mean score 65.8%, SD=12.2) and believed that they should be more knowledgeable in this field. Basir Shabestari et al. reported similar results in Zanjan city. They declared that 80.3% of medical intern students were agree with addition of some oral medicine academic courses at university [13]. This is a positive point in planning future academic educational programs.

Considering the behavior mean score that was 42.8% (SD= 17.5), it seems that many general practitioners are unfamiliar with the oral cavity and basic oral examinations. In a survey done in Ghazvin city by Khalili et al. 85.9 % of physicians did not perform oral cancer examinations for their patients [14]. So our final goal is for medical students to graduate with the knowledge, attitudes, and skills to engage in oral health preventive care, detecting oral lesions and to do the proper consequential treatment or referral.

Conclusion

Regarding to the large group of patients with oral lesions that general practitioners deal with, they should be educated and trained well enough to manage them correctly and on time. It was disappointing to find out that the mean score of knowledge and behavior regarding oral lesions was low, but there was a positive point that the mean score of attitude was high, which can play an effective role in the future academic plans.

Preserving oral health and avoiding oral disease should be of the interest of all health providers especially general practitioners as the leading members of medical group who deal with patients firsthand. Oral medicine related education is essential for general practitioners. Increasing their academic and clinical knowledge should be on the agenda of all universities of medical sciences.

A decision to make a changes in educational qualities, in universities of medical sciences, would give general practitioners a better understanding for detecting oral lesions and dental problems, as well as referring the patients to appropriate dental specialists, considering this has been

already a routine procedure for other special treatment cases which they usually come across [15].

References

1. Drum, M.A., Chen, D.W. and Duffy, R.E., 1998. Filling the gap: equity and access to oral health services for minorities and the underserved. *Family medicine-Kansas city*-, 30, pp.206-209.
2. Burket, L.W., Greenberg, M.S., Glick, M. and Ship, J.A., 2008. *Burket's oral medicine*. PMPH-USA.
3. Davis, S., 2015. Aphthous and other oral ulcers. *South African Pharmacist's Assistant*, 15(1), pp.25-28.
4. Sarumathi, T., Saravanakumar, B., Datta, M. and Nagarathnam, T., 2013. Awareness and knowledge of common oral diseases among primary care physicians. *J Clin Diagn Res*, 7, pp.768-71.
5. Morgan, R., Tsang, J., Harrington, N. and Fook, L., 2001. Survey of hospital doctors' attitudes and knowledge of oral conditions in older patients. *Postgraduate medical journal*, 77(908), pp.392-394.
6. Al-Hussyen, A., Al-Sadhan, S., Al-Dhalaan, R. and Al-Ghanim, B., 2003. Knowledge and practices towards children's preventive oral healthcare in Saudi Arabia. *Egyptian dental journal*, 49(2.2), p.827.
7. Sabbagh, H., El-Kateb, M., Al Nowaiser, A., Hanno, A. and Alamoudi, N., 2011. Assessment of pediatricians dental knowledge, attitude and behavior in Jeddah, Saudi Arabia. *Journal of Clinical Pediatric Dentistry*, 35(4), pp.371-376.
8. Awan, K.H., Khang, T.W., Yee, T.K. and Zain, R.B., 2014. Assessing oral cancer knowledge and awareness among Malaysian dental and medical students. *Journal of cancer Research and therapeutics*, 10(4), p.903.
9. Prakash, P., Lawrence, H.P., Harvey, B.J., McIsaac, W.J., Limeback, H. and Leake, J.L., 2006. Early childhood caries and infant oral health: Paediatricians' and family physicians' knowledge, practices and training. *Paediatrics and child health*, 11(3), p.151.
10. Lewis, C.W., Grossman, D.C., Domoto, P.K. and Deyo, R.A., 2000. The role of the pediatrician in the oral health of children: a national survey. *Pediatrics*, 106(6), pp.e84-e84.
11. Sanchez, O.M., Childers, N.K., Fox, L. and Bradley, E., 1996. Physicians' views on pediatric preventive dental care. *Pediatric dentistry*, 19(6), pp.377-383.
12. Rabiei, S., Mohebbi, S.Z., Patja, K. and Virtanen, J.I., 2012. Physicians' knowledge of and adherence to improving oral health. *BMC public health*, 12(1), p.1.
13. Basir, S.S., Shirinbak, I. and Shervinbadv, R., 2014. Evaluation of knowledge and diagnostic skills of Zanjan university of medical sciences on oral medicine interns.
14. Khalili, M., Agha, B.H. and Hosseinzadeh, A., 2004. Knowledge, attitude and practice of general physicians in relation with oral malignancies.
15. Srinidhi, S., Ingle, N.A., Chaly, P.E. and Reddy, C., 2011. Dental awareness and attitudes among medical practitioners in Chennai. *J Oral Health Comm Dent*, 5(2), pp.73-78.