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

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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

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 OHC 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

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1 Oral Health Care
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. 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.

Statistical analysis
The data was analyzed with SPSS\textsuperscript{2} 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).

<table>
<thead>
<tr>
<th>Variable</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender (n, %)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>39</td>
<td>60</td>
</tr>
<tr>
<td>Female</td>
<td>26</td>
<td>40</td>
</tr>
<tr>
<td>Total</td>
<td>65</td>
<td>100</td>
</tr>
<tr>
<td>Graduation year (n, %)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1957-1991</td>
<td>6</td>
<td>9.2</td>
</tr>
<tr>
<td>1992-1999</td>
<td>26</td>
<td>40</td>
</tr>
<tr>
<td>2000-2009</td>
<td>25</td>
<td>38.5</td>
</tr>
<tr>
<td>2009-2012</td>
<td>8</td>
<td>12.3</td>
</tr>
<tr>
<td>Total</td>
<td>65</td>
<td>100</td>
</tr>
</tbody>
</table>

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

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

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.

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

<table>
<thead>
<tr>
<th>Score</th>
<th>Men</th>
<th>Women</th>
<th>Independent t test</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Quantity</td>
<td>Percentage</td>
<td>Quantity</td>
</tr>
<tr>
<td>Academic knowledge</td>
<td>47.7</td>
<td>13.8</td>
<td>42.1</td>
</tr>
<tr>
<td>Clinical knowledge</td>
<td>32.3</td>
<td>12.9</td>
<td>35.4</td>
</tr>
<tr>
<td>Attitude</td>
<td>66.02</td>
<td>10.8</td>
<td>65.9</td>
</tr>
<tr>
<td>Behaviour</td>
<td>43.6</td>
<td>16.7</td>
<td>41.7</td>
</tr>
</tbody>
</table>

\textsuperscript{2}Version 18.0/PC; SPSS, Chicago, IL, USA
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

(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)**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academics courses at university (n, %)</td>
<td>36</td>
<td>55.4</td>
</tr>
<tr>
<td>CME (n, %)</td>
<td>48</td>
<td>73.8</td>
</tr>
<tr>
<td>Clinical training courses (n, %)</td>
<td>38</td>
<td>58.5</td>
</tr>
<tr>
<td>Providing educational materials (booklet or CD, …)</td>
<td>25</td>
<td>38.5</td>
</tr>
</tbody>
</table>

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 or 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 health preventi

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

<table>
<thead>
<tr>
<th>Score</th>
<th>Age</th>
<th>Years of practice</th>
<th>Number of patients a day</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>r</td>
<td>p</td>
<td>r</td>
</tr>
<tr>
<td>Academic knowledge</td>
<td>0.013</td>
<td>0.92</td>
<td>0.012</td>
</tr>
<tr>
<td>Clinical knowledge</td>
<td>0.069</td>
<td>0.59</td>
<td>0.013</td>
</tr>
<tr>
<td>Attitude</td>
<td>0.398</td>
<td>0.001</td>
<td>0.386</td>
</tr>
<tr>
<td>Behaviour</td>
<td>0.271</td>
<td>0.03</td>
<td>0.276</td>
</tr>
</tbody>
</table>
already a routine procedure for other special treatment cases which they usually come across [15].

References