KNOWLEDGE, ATTITUDE AND PRACTICE OF ORAL HEALTH PREVENTION AMONG PHYSICIANS IN COMMUNE HEALTH CENTERS IN THUA THIEN HUE PROVINCE

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Abstract

Background: Oral diseases, especially dental caries and periodontal diseases have very high prevalence in community. General physicians in commune health centers play an important role in oral health education of individuals and groups as well as in early discovery oral diseases of community at large. ***Objectives:*** (1) To assess the knowledge, attitude and practice of oral health prevention among physicians in commune health centers in Thua Thien Hue province, (2) To identify factors influencing physicians' knowledge, attitude and practice of oral health prevention. ***Methods:*** A cross-sectional study was undertaken among 151 physicians in 151 commune health centers in Thua Thien Hue province. ***Results:*** 45.6% of physicians had good knowledge; 99.1% had good attitude for oral health prevention, 84.2% of physicians expressed the willingness to add oral health examination as a part of routine clinical examination; 41.2% of physicians had good practice in the prevention of oral diseases. There was a correlation between knowledge of oral health prevention and workplace; practice of oral health prevention and number of patients seen per day. **Conclusion:** Most physicians in commune health centers had good attitude toward prevention of oral diseases, yet their knowledge and practice were still moderate.

Key words: Knowledge, attitude, practice, oral health prevention, physician, commune health center

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1. INTRODUCTION

Dental caries and periodontal disease comprise a considerable prevalence in the community. Given the extent of the problem, oral diseases are major public health problems worldwide. According to the World Health Organization, worldwide 60 – 90% of school age children, and nearly 100% of adults have dental carries [7]. In Vietnam, in the report of the second national survey of oral health status (2001), the proportion of dental caries increased in the older age groups, ranging from 75.2% to 89.7% in the group of 18 - 34 years old and the incidence of periodontal disease was extremely high at 96.7% [8].

The World Health Organization Global Oral Health Program has made recommendations to improve the global oral health status, based on integrating oral health care programs in primary health care in the community with the motto: prevention is better than cure [9]. The primary health care facilities, particularly the commune health centers (CHCs) are the closest public units and more affordable healthcare cost to, thus they can attract a large number of people visiting and help solving most of health problems of the community. The physicians working at CHCs play a very important role in the communication, oral health counseling as well as providing early detection and treatment of dental problems in the community. However, the lack of well-trained dental personnel and weakly dental capacity in providing oral health care service has still remained the common concerns. Nevertheless, there were recently few researches on knowledge, attitude and practices of physicians at CHCs regarding screening, prevention and oral health care. The objectives of this study were characterizing the knowledge, attitude, and practices in prevention of oral health among physicians at CHCs in Thua Thien - Hue province and identifying the factors related to knowledge, attitudes and practices of these physicians.

2. METHODS

2.1. Participants

All the physicians who are working regularly at CHCs in Thua Thien Hue province were selected in this study. List of participants was collected from the Provincial Department of Health Services, including 151 physicians.

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Exclusion criteria: The physicians working at CHCs as per their terms of dispatching and rotation.

2.2. Study design

This study was a descriptive cross-sectional study. Thua Thien Hue Province is composed of 6 districts, 2 towns and one city with 151 communes. All 151 physicians working at these CHCs in Thua Thien Hue province were selected as the sample of our study.

2.3. Survey instrument

The questionnaire was divided in four sections and comprised a series of questions pertaining to socio - demographic characteristics; knowledge relating to oral diseases; attitude towards the counseling, prevention of oral diseases; management practice in regard to preventive measures for oral diseases.

For assessing knowledge of the main risk factors, symptoms, early detection and treatment of dental caries, periodontal disease, respondents were asked a series of questions and they indicated their level of agreement or disagreement on a three-point Likert scale. For attitude towards the prevention of oral diseases, the percentage of being willing to counsel and to perform oral health prevention activities, we used five-point Likert scale (rating from 1 to 5, 1 = Strongly Agree , 2 = Agree, 3 = No opinion, 4 = Disagree, 5 = Strongly disagree). In the fourth section, we assessed the management practice by asking the physicians about whether they implement preventive measures for oral diseases in their clinical work at CHCs in previous year.

Each question in the assessment sections of knowledge, attitude and practices was scored. The maximum score was given to the most accurate answer and the minimum score was for the incorrect answers. The score for each section then was calculated by the sum score of all questions in this section and it was evaluated as follows: less than 75% of the total points was recorded as “Not Good”; more than or equal to 75% of the total points was recorded as “Good”.

2.4. Data analysis

Data were coded, entered into EPIDATA 3.1 software, and transferred to SPSS 16.0 software for analysis. Using the test $\chi 2$ (Chi-square) aimed to find out the mathematical correlation between the variables.

3. RESULTS AND DISCUSSION

An overall response rate of 84.1% was achieved in the study, with a total of 151 questionnaires disseminated and 127 responses (13 excluding due to not a physician) receive from physicians in all CHCs in Thua Thien Hue province. The collated dataset included 114 valid and complete responses.

3.1. The characteristics of participants

Table 3.1. The socio - demographic characteristics of participants (n = 114)

Characteristics	n	%
Gender		
Male	77	67.5
Female	37	32.5
Age		
< 40	21	18.4
40 – 50	80	70.2
> 50	13	11.4
The highest educational background		
Undergraduate	66	57.9
Postgraduate	48	42.1
Number of years in practice		
< 10	35	30.7
10 – 20	53	46.5
> 20	26	22.8
Number of patients daily seen		
< 20	55	48.2
20 – 30	33	28.9
> 30	26	22.8
Workplace		
Hue city	24	21.1
District	72	63.1
Town	18	15.8

Participants had an average age of 45.2 ± 5.4 years old educational background was relatively equal between general practitioner and specialist level 1. In addition, the average number of years in practice of the sample was high at 14.3 ± 7.2 years. According to the annual report of the Ministry of Health (2009) on health human resources [5], our sample was appropriate to the characteristics of physicians working at CHCs in Vietnam, namely high educational background and age, male-dominated, high number of years in practice. The amount of daily patient at 25.5 ± 12.7 patients indicated that the daily workload of the physicians at CHCs in Thua Thien Hue province was quite high. While conventional wisdom holds that 15 patients in the optimal daily cencus, higher acuity patients and added responsibilities increase physician workload.

3.2. The oral health status in community

Table 3.2. The oral health status according to comments of the physicians at CHCs

Oral health status	Never (%)	Rarely (%)	Sometimes (%)	Very often (%)	Always (%)
A lot of cavities in a single patient	0.0	4.4	64.9	29.8	0.9
1-2 decayed teeth in a patient	0.0	1.8	40.4	52.6	5.3
Traumatic mouth injury *	0.0	20.2	49.1	28.9	1.8
Pain related to untreated cavities	3.5	2.6	45.6	43.9	4.4
Tooth abscesses **	4.4	12.3	67.5	14.9	0.9

** fractured tooth, dislocations ** fistula, swollen gums, swollen face*

Our study showed that oral diseases were the common diseases in CHCs, similar to the study conducted by Hoang Anh Dao at some CHCs in Hue city (2012) with large amount of people having dental caries (92.2%) and having the sensitive, cracked, and fractured tooth (>50%) when patients self-reported their oral problems in the last 12 months [2]. In accordance with the research of LA Cohen, the common dental problems included tooth pain (32.5%), traumatic mouth injury (21.6%), and dental abscesses (16.5%) [1].

The comprehensive care of oral health primarily provided by dentists in regional or central hospitals located in urban centers and the private service. The varieties as well as the popularity of oral diseases at CHCs have posed a challenge for the primary health care. Most of patients treated for dental problems from the non-dental health care physicians at CHCs could not be treated properly and may need to visit a dentist for further diagnosis and appropriate treatment [5]. There should be further research on ensuring an adequate human resource and skills in implementation oral health care of physicians at CHCs, thus it can support and promote the improvement of oral health in the community [6].

3.3. Knowledge, attitudes, and practice of oral health prevention

3.3.1. Knowledge of oral health prevention

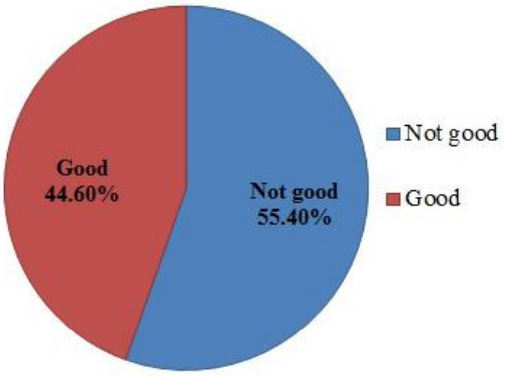

Figure 3.1. *Overal knowledge of oral health prevention*

The majority of physicians at CHCs have appreciated the importance of oral hygiene, sugar habit, junk food habit which was the high risk factors for dental caries and periodontal disease. To compare with the results of Di Giuseppe G. studying on the oral health prevention knowledge of pediatricians [4] with the same questions, the

proportion of knowledgeable physicians (56%) was higher than that in our results (45.6%). This difference might due to the different sampling and qualifications of variable research subjects.

3.3.2. Attitude towards oral health prevention

In general, there were 99% of physicians having positive attitude towards the prevention of oral health. The results of our study were the same to that of GA Murthy (2010), which the majority of physicians had a positive attitude towards the oral health prevention [7].

Most of these physicians perceived the importance of oral health and preventable oral diseases. In particular, the majority of the physicians (97.4%) agreed with their important role in preventing oral health for the community. This was especially necessary since the physicians at CHCs are the nearest available health care professionals and attract a large amount of people to access the primary health care services. In turn, this could have positive effects on their willingness of integrating oral health care into their daily work. However, there were still 14.1% of the physicians who disagreed about the role of physicians in CHCs on evaluating oral health for patients. In comparison with the studies of Di Giuseppe G. [4], it showed that 94.8% of pediatricians believed in their responsibility to prevent oral diseases and to conduct an oral examination for children.

When asked about the willingness to incorporate oral health examination in routine consultation at CHCs, 84.2% of the participants said "Yes" leaving small part of them was not willing to integrate for certain reasons. The main reason was the fact that this combination was difficult at the routine clinical workflows of CHCs (61.1%), followed by "too much work to do" (55.6%). (Fig. 3.2).

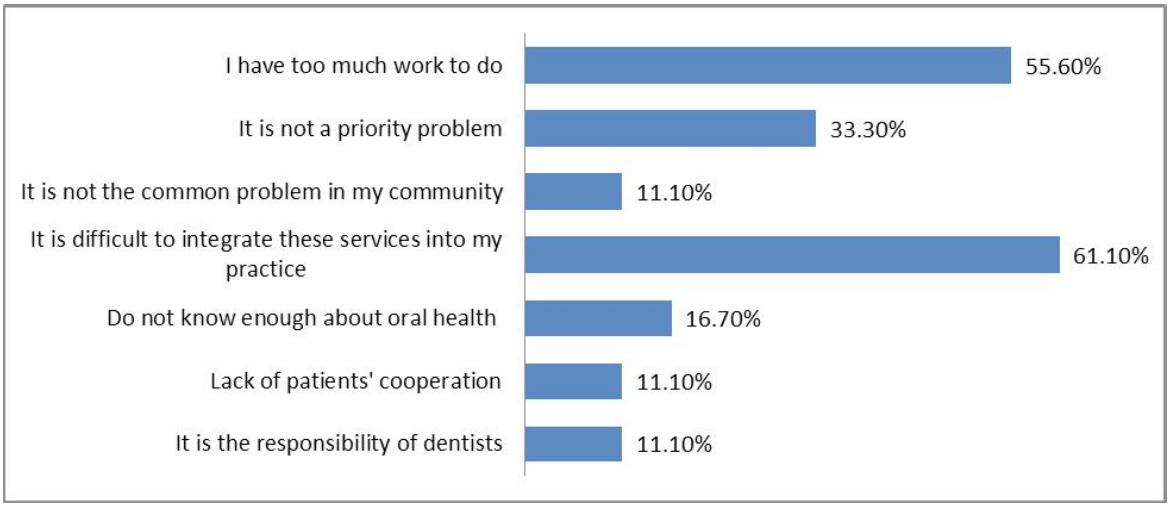

Figure 3.2. The reasons for not willing to combine oral health examination with the routine consultation at CHCs

3.3.3. Practice of oral health prevention

Our results indicated that the majority of the physicians have performed certain aspects of oral disease prevention and health promotion (Fig. 3.4). There was a correspondence between our study and Yousef M.'s study (2011) which the percentage of providing counseling, referring to the dental specialists was 86.7%, performing oral health check-up for patients who had symptoms was 85.1% [10]. Research by Murthy GA [7] also had the similar result which practice of the physicians was good, at 59%.

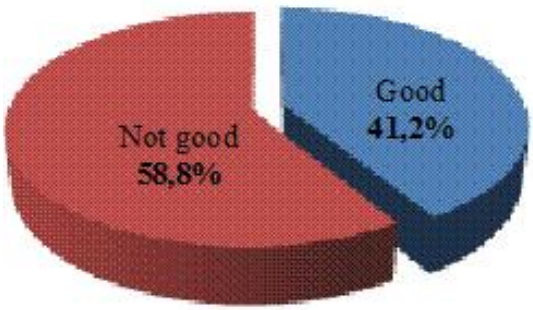

Figure 3.4. *Performing the preventive measures of oral health*

Counseling and advocacy on oral health prevention was conducted by the majority of the physicians at CHCs (90%). Most of them provided oral health care services for people, namely oral health examination in the presence of an oral disease (92.1%), referring to the dentists (93%). Yet the percentage of the physicians performing oral health examinations for all patients was very low (12.3%). This is a limitation in the detection and early treatment to prevent oral diseases for population in the community since people had only been examined when having a manifestation of the disease [3].

3.4. Factors related to the knowledge, attitude, and practices of oral health prevention

Table 3.3. The association between the knowledge of oral health prevention and the socio – demographic characteristics

Characteristics	Knowledge of oral health prevention		χ^2, p
	Good (%)	Not good (%)	
Educational background			χ^2 = 0.521
Undergraduate	48.5	51.5	p > 0.05
Postgraduate	41.7	58.3	
Workplace			
Hue city	62.5	37.5	χ^2 = 7.122
District	36.1	63.9	p < 0.05
Town	61.1	38.9	

The difference in the percentage of knowledge on oral disease prevention among two groups of educational background was not statistically significant (p > 0.05). There was a positive association between the knowledge and workplace of study subjects (p < 0.05). Oral health prevention knowledge of the physicians working in the city and towns were better than those working in the districts. This finding may reflect the wider coverage level of the information and the more convenience of the access to the information about oral health prevention in developed regions.

Table 3.4. Factors related to practice of oral health prevention

	Practice of oral health prevention		χ^2, p
	Good (%)	Not good (%)	
Number of patients per day			
< 20	52.7	47.3	χ^2 = 7.013
20 – 30	24.2	75.8	p < 0.05
> 30	38.5	61.5	
Knowledge of oral health prevention			χ^2= 0.028
Good	40.4	59.6	p > 0.05
Not good	41.9	58.1	

There was a positive association between practice oral health prevention and number of patients per day. Physicians who had fewer patients per day tended to be better in practice. The less patients visit CHCs per day, the more time physicians spent to contact with the patients, to counsel, examine and early detect oral diseases, thus the prevention of oral health would be better. Nevertheless, the physicians who had more than 30 patients per day also had well performance of prevention for patients with oral diseases. Therefore, further research on the factors affecting the implementation of preventive behaviors of oral diseases is necessary. Analysis the results of Yousef M. study [10] showed that our study results were reasonable. Thus, in order to improve the implementation of the oral health preventive measures for community, physicians' daily workload need to be reduced, especially limiting the number of patient visiting CHCs per day.

4. CONCLUSIONS

Our study showed that most physicians at CHCs had good attitude towards oral health prevention, however their knowledge and practice was still limited. The physicians at CHCs agreed to integrate oral health examination into the routine clinical practice at CHCs to prevent oral diseases in community. Oral health prevention knowledge of the physicians working in the city and towns were better than those working in the districts. Physicians who had fewer patients per day tended to be better in practice. The less patients visit CHCs per day, the more time physicians spent to contact with the patients, to counsel, to examine and early detect oral diseases, thus the prevention of oral health would be better. This study provides evidence for advanced training in oral health to improve the knowledge and practice of the physicians at the CHCs. Moreover, in order to expand their role in promoting preventive activities of oral health in community, it is recommended to integrate the oral examination in the routine practice of physicians at the CHCs.

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