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Global Oral Health Course: An Insight for Dental Students on Global Oral Health Issues

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Abstract:

Background: Number of dental institutions has increased in the past decade but unfortunately none of them are running any global oral health course. So, present study was carried out to understand the interest of students in international volunteer opportunities, knowledge and attitudes of the students toward the global oral health issues, basic package of oral care (BPOC) and a need for a course on global oral health issues.

Materials and Methods: A questionnaire study was conducted in the final year students of Al-Farabi Dental College, Riyadh, Kingdom of Saudi Arabia. An amended version of the Global Oral Health Information Questionnaire was used with ten close ended questions. 210 students were asked to fill the questionnaires and out of which 197 responded and these were used for the data analysis.

Results: The data analysis suggested that 87.3% of the students who were surveyed showed strong interest to be volunteer as a dentist in an international platform or other developed country. 68% of the students do not have knowledge about the global oral health status. The need of information about the oral health care devices in developing and developed countries is essential to address global oral health issue was felt by 76.6% of the students. 83% of the students have no idea about the BPOC package and only 13% of the students were aware, who drafted BPOC.

Conclusion: The data analysis suggests the need of course on global oral health issues for the dental students. The results also suggest the students lack the knowledge on the global oral health status and policies of World Health Organization on global oral health issues including BPOC. Moreover, the results also depict the voluntariness of the student to work in an international setting.

Key Words: Basic package of oral care, global health issue, global oral health

Introduction

Oral diseases are major public health issue in developed countries, where oral health care cost often exceeds than extra-oral diseases, including major disorders such as heart diseases, cancer, stroke, and dementia. Nonetheless, statements regarding the discrepancies in the levels of disease at national level alone failed to reveal an even more vital issue of major imbalance that exist both within and between countries in terms of prevalence and disease severity.¹

The majority of the world's population mainly those residing in developing nations have minimal or no access to oral health care. Even though oral health is recognized as a fundamental human right, the oral health care system failed to provide suitable, effective and economical care to more than 4 billion people worldwide.²

Oral health care remains the major concern of dentists in private hospitals of urban localities.³ Information, awareness, and preventive activities for the poor people, provided by health care workers or dental assistants, rarely became a reality. If oral health played a role in policy structure at all, the approaches chosen follow the conventional western preventive or curative treatment prototype using highly trained dentists and costly technology. Several health care systems failed to recognize the significance of oral health not only in underdeveloped nations but in developed countries also for the individual (in terms of pain and suffering) and public health (in terms of impact on local economies and general health).

For example: Oral diseases accounts similar number days lost to that of anemia, tuberculosis or malaria.⁴

The basic package of oral care (BPOC)

The BPOC⁵ was developed by the World Health Organization (WHO) Collaborating Centre in Nijmegen, describes a package of basic oral care activities which can be provided within the framework of the existing first line care, the primary health care system. The fundamental idea behind The BPOC is that the oral care that is provided meets the basic and most urgent needs of any population that is served. Toothache is the most frequent reason why people seek help^{6,7} and therefore the greatest priority should focus on providing emergency treatment, addressing oral pain and infections. Furthermore, it is essential that emphasis should be given to the system of preventive care. The BPOC includes three main components:

Oral urgent treatment (OUT)

It is an on-demand service providing basic emergency oral care. To provide relief from pain is the predominant treatment demand of underserved populations. To make emergency oral care easily accessible for all should be priority of any oral health program. The three fundamental elements of OUT consists of:

- Relief of oral pain;
- Referral of complex cases
- First aid for trauma to dento-alveolar region oral infections.⁸

Affordable fluoride toothpaste

It is an effective technique to reproduce clean and healthy oral environment. The WHO states that fluoride containing toothpaste is an important system to deliver fluoride. Every preventive program depends on the availability and affordability of a fluoride toothpaste.⁸

Atraumatic restorative treatment (ART)

The approach involves no drilling device, electricity or running water. For dentinal caries, ART consists of removal of demineralized tissue from cavities using hand instruments followed by restoration with the fluoride-releasing filling material, usually glass ionomer cement. For pits and fissures prone to caries development and those with evidence of early enamel caries lesions, ART sealants can be applied to prevent further demineralization.⁸

Materials and Methods

Ethical permission from Institution Ethical Committee has been taken before the commencement of the study. A pilot study/survey was conducted using final year dental students studying at Al-Farabi Dental University, Riyadh, Kingdom of Saudi Arabia. An amended form of Global Oral Health Questionnaire was used to collect the information from the students. The first question was aimed to understand the interest of students to volunteer in an international setting. The next three questions were to assess the awareness of students about oral health care systems, global health ethics and oral health status of developing nations. The next two questions were to understand whether the students have been trained to interact with people of different cultures, socio-economic backgrounds and underserved populations. The next two questions were asked to understand the knowledge and attitudes of students about the BPOC package and who drafted it and finally to analyze whether the students felt there is a need for course on global oral health issues. The students were given the questionnaires before the lecture and asked to return the completed questionnaires after the lecture.

Results

Of the 197 students who completed the questionnaires 172 (87.3%) were interested to volunteer in an international setting once they are graduated as a dentist. 134 (68%) of the students do not have the knowledge about global oral health

status and 123 (62.4%) of the students were unaware about the various systems of oral health care in developing nations. 90 (45.7%) of the students felt they have been trained to interact with people of different cultures and socio-economic backgrounds to address oral health issues and 115 (58.4%) of the students felt the need to be trained to serve the underserved population. 151 (76.6%) of the students have strong opinion that the information about various systems of oral health care in developing countries is necessary to address global oral health issues. 164 (83%) of the students do not have the knowledge what does BPOC package includes and only 26 (13%) of the students were aware that WHO drafted BPOC and finally 132 (67%) of the students who completed the questionnaires agreed that there should be a learning course on global oral health issues for the dental students.

Discussion

The Kingdom of Saudi Arabia has experienced significant changes in the lifestyle of the Saudi residents due to the global development and health services have been benefited much from this development. This qualitative and quantitative expansions in the health services was challenged by availability of workforce at the national level in the different health sectors which is indeed very much required to maintain the standard of these services. One of the way to confront this challenge is to revise the system of health education after careful interpretation and analysis of the international experiences in this zone.¹

The primary goal of dental education is to provide qualified dental practitioners to fulfill oral health needs of the community. Effective dental education programs must meet the current and future demand for oral health care. Indeed, dental education must be responsive to changes in current and projected disease demographics, to advances in technology, and changes in societal culture affecting patient demand for treatment.^{9,10}

The most significant change in the dental education is the adoption of competency-based education (CBE). CBE is an institutional process that moves education from focusing on what academics believe graduates need to know (teacher-focused) to what students need to know and be able to do in varying and complex situations (student and/or workplace focused).²

Hendricson and Cohen (2001) outlined three questions that educational institutions must answer to develop competency-based health professions education:

- What knowledge, skills, and professional/personal values should the students possess at the time of graduation so that he or she will be ready for the next level of training (e.g., a postgraduate year one) or to be prepared to serve as an independent functioning entry-level general practitioner?
- What learning experiences will enable students to acquire these competencies?

- What proof, or evidence, is required to faculty to ensure that students have attained competency?

The identification of competencies is not an isolated activity—identifying competencies is just the first of many steps in ensuring that students are prepared to deliver quality health care. Once competencies have been established, the knowledge, skills, and attitudes underpinning each competency need to be clearly articulated in writing and related measures developed. Assessment tools must then be matched to each competency to evaluate outcomes the results providing evidence that goals and objectives have been accomplished.^{11,12}

Dental students working as volunteers in international settings is an ideal concept not only to work with people of diverse communities but also to explore the skills of dentistry which would be a valuable experience for the dental students. Working as a volunteer will give the students a change from the classroom atmosphere and the routine activities which will also enhance the skills of teamwork and communications. It provides an opportunity to work with other dental students and specialists of different countries to improve their dental skills. This demanding interest of students to volunteer comes with the potential threat of voluntourism. Voluntourism is an emerging trend in international volunteering, that is, defined as a combination of volunteering and tourism.¹³

Conclusion

The results of the present study suggested that majority of students are unaware of the policies drafted by WHO like BPOC. It is high time to focus on this aspect and include a course on global oral health issues that will create awareness among the students about the oral health care systems and global oral health policies of developing nations. This course also enables the students to work and interact with people of different socio-economic backgrounds and cultures. The study also shows the willingness of the students to volunteer in international settings. This high desire of the students to get involved in global health-related issues create a responsibility for dental instructors and educators to enable students to critically analyze volunteer opportunities and to differentiate potentially detrimental voluntourism from responsible activities based on global health principles. Eventually, the goal of dental educators is to encourage student's involvement in long-term, empowering, sustainable, and ethically sound solutions to minimize and remove oral health inconsistencies globally.¹⁴⁻¹⁶

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