Perspective

Implementation of domiciliary dentistry curriculum in dental education: 5-year experience

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Received 18 January 2022; Final revision received 22 January 2022
Available online 11 February 2022

In Taiwan, the number of people older than 65 years is rapidly increasing, which is estimated to be >20% of the population. The number of frail and medically compromised elderly increases with aging. A previous study revealed that 10% of the elderly are functionally dependent and are either housebound or institutionalized, leading to reduced dental service access. Domiciliary dental care (DDC) is characterized by dental care delivered in the patient’s residence. DDC seldom draws the dentists’ attention. Studies disclosed the barriers for dentists for conducting DDC, including patients’ complex medical history, unfavorable working conditions, insufficient training, and lack of its familiarity. Hirata et al. revealed a significantly higher proportion of dentists who conduct DDC have training on medical DDC for elderly in need of nursing care than those who are not in their survey for the factors that influence DDC implementation by dental institutions in 4031 members of the Tokyo Dental Association. The results of their study indicate the importance of undergraduate education on DDC and the importance of dental association seminars or training to promote DDC.

In Taiwan, DDC was firstly conducted by Chung Shan Medical University Hospital (CSMUH) in March 2010. The Taiwan National Health Insurance system has partly covered the DDC fee since July 2011. Since 2014, the continuing education on DDC for dentists and healthcare providers by special needs oral care centers or dental associations was hosted annually. However, DDC education is not incorporated in the undergraduate curriculum before 2017. Herein, we presented our 5-year experience (2017–2021) in developing a domiciliary dentistry curriculum for fourth-year dental students. To the best of our knowledge, the curriculum was the first one-credit and required course for dental students in Taiwan. No similar curriculum was used in other dental schools in Taiwan.

The curriculum was delivered by hybrid teaching with online lectures and traditional physical classes from 2017 to 2020. The lecture notes, videos, and reference videos were available on the online platform of CSMUH. In 2021, we further established the entire online learning. Additionally, we had 8–12 students who joined our home dental visit before the coronavirus disease-2019 pandemic. The lectures were composed of the principles and concepts of DDC, the oral health condition of the bedridden patients, and the process of planning, delivering, and practicing DDC. For hands-on practice, the students were divided into 20 groups with four members of each group. The hands-on practice was conducted by group to ensure the learning quality of every student. The learning outcome was evaluated with direct observation of the procedural skills chart in the final examination. The
The dental students’ satisfaction to the domiciliary dentistry curriculum.

| Item                          | Grade of satisfaction (%) | Year |
|-------------------------------|---------------------------|------|
| Q1 The lectures               | Very satisfied plus satisfied | 2017 | 100 |
| Average                       |                           |     | 98  |
| Q2 The online teaching materials |                           | 2018 | 93  |
| Average                       |                           |     | 97  |
| Q3 The hands-on practice      |                           | 2019 | 96  |
| Average                       |                           |     | 97  |
| Q4 The overall course         |                           | 2020 | 97  |
| Average                       |                           |     | 100 |
| Average                       |                           | 2021 | 99.8|

*Response rate: 86% (70/81) for 2017; 81% (63/78) for 2018; 89% (70/79) for 2019; 100% (79/79) for 2020; 100% (80/80) for 2021.

Declaration of competing interest

The authors have no conflicts of interest relevant to this article.

Acknowledgments

This work was partly supported by a grant from the Higher Education Sprout Project of the Ministry of Education, Taiwan. We thank Professor Hiroomi Kurokawa and Dr. Toshitide Sato of the School of Life Dentistry at Niigata, Nippon Dental University, and their staff for their kind and valuable assistance in the development of the domiciliary dentistry curriculum for the School of Dentistry, Chung Shan Medical University.

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