



The Use of a Train-The-Trainers Model to Educate non-dental Healthcare Professionals in Oral Care

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Introduction

Associations between oral health and systemic conditions have been well established in recent literature. Improvements in oral hygiene have consistently been shown to significantly reduce the incidence of aspiration pneumonia, which has high morbidity and mortality rates in the frail elderly.

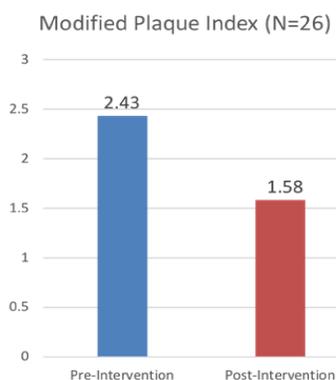
However, the simple low cost intervention of good oral care has often been overlooked in the provision of daily care by healthcare institutions. This is due to the lack of awareness of the impact of oral hygiene on general health and the lack of knowledge in carrying out proper oral hygiene measures.

This, coupled with insufficient time, cognitive and behavioral impairment, makes the provision of oral care inconsistent with best practice standards. To overcome these challenges, we utilized the train-the-trainers model, where 7 senior nurses from the chronic care wards of Bright Vision Hospital were educated on the importance of good oral health and comprehensive oral care protocol in patients requiring assistance.

Method

A total of 7 senior nurses from Bright Vision Hospital (BVH) participated in our one-day Oral Health Education Program (OHEP). The Modified Plaque Index (MPI), which is indicative of the thoroughness of oral hygiene, was measured at two time points, before OHEP (baseline) and 6 months after OHEP (Figure 1). Figure 2 depicts the content of the Oral Health Education Program.

Results and Discussion



Graph 1: Plaque Index before and after intervention

Improvement Category	Percentage
Worsen	8%
No Improvement	23%
≤ 30%	12%
30% to 60%	27%
60% to 90%	27%
> 90%	4%

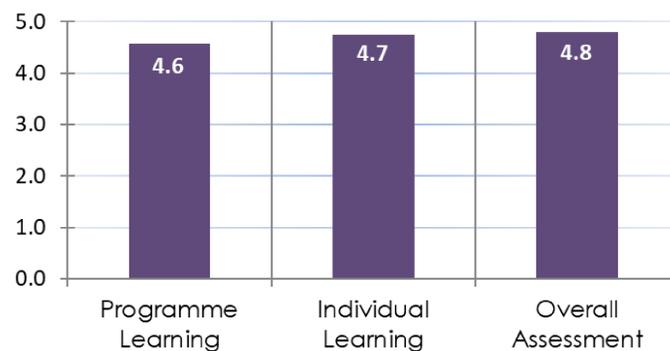
Table 1: Improvement in Plaque Index

Twenty-six patients completed both examinations. The average plaque score for patients in BVH, has reduced from 2.43 to 1.58 (Graph 1).

Eighteen (69%) patients showed improvement, six patients (23%) showed no change and two patients (8%) showed deterioration. Seven patients (27%) had reduction in plaque scores ranging from 30-60% and a same number of patients had 61-90% reduction in plaque scores (Table 1).

At the end of the education program, all the nurses participated a pen-to-paper survey on their level of satisfaction on program learning, individual learning and overall assessment based on 5-point Likert scale (5= strongly agree and 1= strongly disagree) (Graph 2). Most participants found the hands-on practice, content and clinical case discussions to be helpful in their nursing practice.

AM.EI Programme Evaluation (Max score of 5)



Graph 2: Oral Health Education Program evaluation

Conclusion

Previous efforts for oral care training for non-dental healthcare professionals have been largely limited to sporadic efforts, with little impact and reach to the majority of the medical fraternity. This interprofessional education collaboration, using the train-the-trainers model allows a standardized curriculum, while allowing autonomy for the trainers to customize modules relevant to their respective institutions. This partnership model allows better sustainability of the program.

Pre-workshop Questionnaire

Questionnaire were given to the nurses in BVH to assess their knowledge on oral condition and hygiene



Oral Health Education Program

Oral Health Education Program for one day



Post-intervention Assessment

MPI of BVH patients after 6 months were measured.



Jun 2018 July 2018 Aug 2018 Sep 2018 Jan 2019 Mar 2019



Pre-intervention Assessment

Site visit to BVH to assess oral hygiene care in the ward



Pre-intervention Assessment

MPI of BVH patients were measured



Site visit

Site visit to BVH at 3rd month to provide assistance and guidance to implement changes in ward

Figure 1: Timeline of the project

LECTURES

Lectures on common dental conditions, Oral Health Assessment Tool, Oral Hygiene Instruction for adults and patients with special medical conditions.



DEMONSTRATION

Hands-on practice of Oral Health Assessment Tool and Oral hygiene instruction.



VIDEO

Video mainly covers the Oral Health Assessment Tool, Oral Hygiene Instructions and denture cleaning.



CASE DISCUSSION

Clinical case discussion related to scenarios in the ward combined with relevant dental conditions.



Figure 2: Content of Oral Health Education Program