



Short Communication

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Pilot Survey for Developing A Perioperative Oral Health Management Educational Program

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Abstract

Preoperative oral health management reduces postoperative complications and is useful for preventing wound infections and aspiration pneumonia. However, there have been few reports on the educational content necessary for perioperative oral health management. The purpose of this study was to evaluate original educational video materials that we create to develop an educational program that will become the standard for perioperative oral health management education at domestic dental hygienist educational institutions.

Keywords: Perioperative oral health management; Educational program; Dental hygienist

Introduction

Preoperative oral health management reduces postoperative complications and is useful for preventing wound infections and aspiration pneumonia [1, 2]. The role of dental hygienists in perioperative oral health management is considered important, and the core curriculum used for the education of dental hygienists in Japan includes "systemic management and perioperative oral health management". A previous study on the education of dental hygienists reported the need for education on knowledge about systemic diseases, patient psychology, and cancer treatment. However, there have been few reports on the educational content necessary for perioperative oral health management. Therefore, it is necessary to standardize perioperative oral health management education in educational institutions for dental hygienists in Japan. The purpose of this study was to evaluate original educational video materials that we create to develop an educational program that will become the standard for perioperative oral health management education at domestic dental hygienist educational institutions.

Method

We created original educational video materials for lectures and practical training on perioperative oral health management that could be used by dental hygienists at educational institutions.

Original educational video materials were created by a dental hygienist with clinical and educational experience in perioperative oral health management. The original educational video materials were developed using PowerPoint® (Microsoft, Washington D.C, USA) and AITalk@3 (AI Inc, Tokyo, Japan). We conducted lectures and practical training using original educational video materials for 32 third-year students enrolled in the Department of Oral Health Sciences, School of Health Sciences, Meikai University. We prepared 29 attainment targets related to perioperative oral health management, including general statements, understanding the patient's condition, medical cooperation, dental hygienist affairs, oral health management of head and neck surgery patients, chemotherapy patients, radiotherapy patients, and medical fees. We investigated students' achievement levels toward attainment targets after the lecture and practical training. This study was approved by the Ethics Committee of the Faculty of Dentistry, Meikai University (approval number: A2017)

1. Main contents of original educational video materials for lectures
 - 1) The purpose of perioperative oral function management.
 - 2) The subjects of perioperative oral function management.

3) The medical collaboration between medical and dental departments in perioperative oral function management.

4) The Methods of Perioperative oral health management before surgery, chemotherapy, or radiotherapy. The Methods of Perioperative oral health management during and after surgery, chemotherapy, or radiotherapy.

2. Contents of original educational video materials for practical training

1) Practical training in planning perioperative oral health management. Description 10minutes, Individual work 15minutes, Group work 15minutes, Presentation 15minutes.

2) Patient information for practical training Chief complaint, History of present illness, Past medical history, Medication, Family history, Oral hygiene habits.

3) Procedure of practical training.

(1) Individual work: Analysis of patient's subjective and objective data and dental hygiene assessment.

(2) Group work: Share the content of individual work, Planning for perioperative oral health management.

(3) Presentation: Planning for perioperative oral health management.

Result and Discussion

As a result of comparing the achievement levels for the attainment targets before and after the lecture, it was found that the achievement levels for all attainment targets increased. However, attainment targets that are difficult to achieve in lectures, such as psychological support methods, tend to have a low level of achievement. Regarding practical training, 70% of the students were able to collect information from the original educational video materials. 40% of the students were able to analyze the collected information. 20% of the students were able to organize subject and objective data and, conduct dental hygiene assessment. Only 3% of students were able to develop a dental hygiene intervention plan. Students were satisfied that they were able to collect a lot of information from the educational video materials (Figure 1).

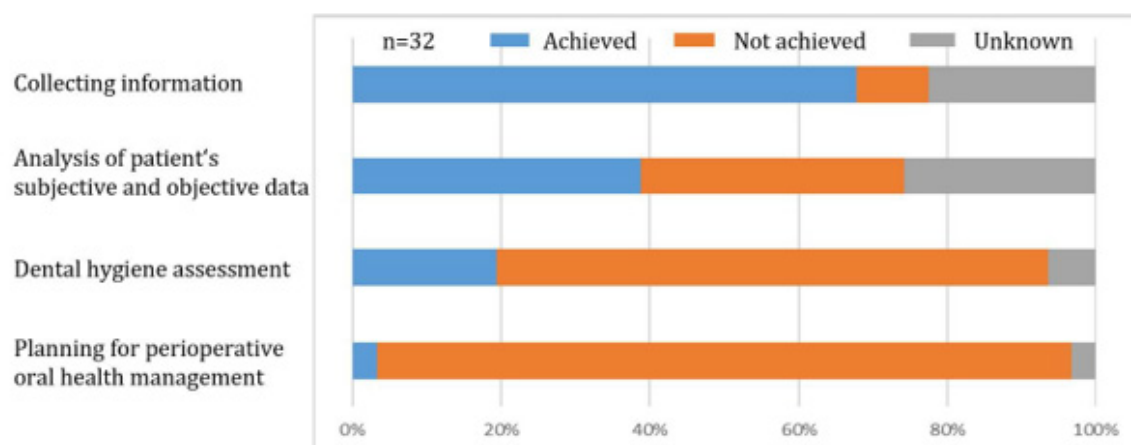


Figure1: Questionnaire results of achievement level after practical training.

Conclusion

In conclusion, our results indicate that psychological support for perioperative oral health management should be provided through educational video materials for practical training. We suggest increasing the number of cases in the original educational video materials for practical training so that students can experience many cycles of collecting and analyzing information, dental hygiene assessment, and planning for perioperative oral health.

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Conflict of Interest

The authors declare that they have no conflict of interest.

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