

Research Report

Improving Dental and Oral Health Through Empowering Village Youth to Enhance Awareness Regarding the Importance of Dentures

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ABSTRACT

Background: Dental and oral health, which is an inseparable part of general body health, is still widely ignored since adolescence. Maintaining the integrity of teeth is an important part of dental and oral health. Tooth loss can cause functional, aesthetic, and social problems, reduce a person's quality of life, and can be an effective indicator of community oral health. **Purpose:** Empowering and educating about dental and oral health for adolescents to increase their awareness of dental and oral health. **Methods:** Dental and oral health counseling and dental health examinations were conducted on 50 adolescents, students of *Madrasah Aliyah Miftahul Ulum*, Melirang, Gresik. This study included quantitative and qualitative methods to assess changes in knowledge and perceptions about denture care among participants. The stages of implementation carried out in this study included pre-test, counseling, question and answer, post-test, dental and oral examination. **Results:** The examination results showed that out of 50 teenagers at MA Miftahul Ulum, Melirang, Gresik, 0 used dentures, 0 had caries + missing teeth, 0 had missing teeth, 3 had restorations, 5 had caries + remaining roots, 9 had remaining roots, 9 had caries, and 29 had no abnormalities. The results of the post-test questionnaire showed an increase in insight, compared to the pre-test. **Conclusion:** The conclusion of the activity showed that there was an increase in adolescents' knowledge and understanding of dental and oral health, as well as the importance of using dentures.

Keywords: Dental; Oral Health; Dentures; Knowledge; Counseling; Medicine

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INTRODUCTION

Dental and oral health is an inseparable part of general body health, so maintaining dental and oral health by avoiding tooth decay is the same as maintaining other body health.¹ However, oral health care still receives less attention; many people still ignore oral health.²

According to the World Health Organization (WHO), an important part of oral health is the long-term maintenance of functional teeth, defined as a dentition with at least 20 teeth that do not require replacement. Tooth loss can cause functional, aesthetic, and social problems, reduce a person's quality of life, and can be an effective indicator of community oral health. Tooth loss is an indicator of damage, mostly caused by dental caries and periodontal disease. Initially, these two factors cause partial tooth loss, but over time can lead to total tooth loss (edentulism).³

Dentures can be used to replace the function of missing natural teeth.¹ Dentures are one of the methods of restoring missing teeth that allow individuals to improve

oral function, improve phonetics, and improve aesthetics.² The need for dentures can be influenced by several factors called "gatekeeping." These factors include oral health problems, quality of life, psychological factors, health literacy (attitudes, values, and practices), social structure factors, and demographic factors.^{4,5} A few years ago, the need for dentures was generally associated with the elderly group because it was related to additive factors that caused it over time. However, younger age groups can also lose teeth due to dental caries, periodontal disease, facial trauma, endodontic failure, and sometimes iatrogenic factors.⁶

One of the factors that influences the choice of using dentures as dental care is age.⁷ Adolescence is a critical period for establishing lifelong health behaviors, so it is important to address the knowledge and education gap regarding denture care.⁸ This demographic group requires special knowledge and care to maintain oral health, but research shows that many adolescents lack understanding of denture care and its importance. Poor denture care can lead to a variety of oral health problems, including infection,

discomfort, and decreased quality of life.⁵ Knowledge of denture users can be obtained from various sources. This knowledge is important even for groups who are not users and are not familiar with dentures.¹ Adolescence is the right time to provide dental health knowledge, especially regarding dentures, because at that age, children begin to understand health and things that should not be done for the sake of their dental and oral health.⁹ A study conducted in India showed that only 33% of participants had heard of denture care as a treatment modality. Therefore, it is very important to evaluate patient awareness and knowledge about dentures regularly.¹⁰ Understanding and improving knowledge about denture care among adolescents is essential to ensure long-term oral health.⁶ Therefore, this study was conducted to improve the empowerment and knowledge of adolescents regarding the use of dentures as an effort to improve dental and oral health in adolescents at Madrasah Aliyah Miftahul Ulum, Melirang, Gresik.

MATERIALS AND METHODS

This study was conducted using the type of community service activities in the form of the Community Partnership Program. Figure 1 are the schedule and stages of implementation carried out in this study, including pre-test, counseling, Q&A and door prizes, post-test, dental and oral examination, closing, and lunch together. This program was implemented at Madrasah Aliyah Miftahul Ulum, Melirang, Gresik, for 1 day. This study also includes quantitative and qualitative methods to assess changes in knowledge and perceptions about denture care among participants.

The target of this study was adolescents aged 15-18 years who were students in grades X, XI, and XII at Madrasah Aliyah Miftahul Ulum, Melirang, Gresik. The inclusion criteria used in this study were that participants were fully present in the counseling program and completed the pre-test and post-test. The exclusion criteria included students who were not fully present. This community service program raised the theme of health and denture

care in adolescents, delivered by a dentist. The program covered topics such as denture use, the importance of denture use, the importance of proper denture hygiene, techniques for cleaning and caring for dentures, risks associated with poor denture care, and tips for managing dentures in a social setting. The intervention also included live demonstrations using PowerPoint and dental simulator mannequin dental phantoms and distribution of educational materials, such as brochures and instructional videos. The presentations were given interactively and were question and answer session.

Data were collected by questionnaire at two time points: before the counseling intervention (pre-test) and immediately after the completion of the counseling program (post-test). A structured questionnaire was used to assess participants' knowledge about dentures in adolescents. The questionnaire was developed based on validated instruments used in previous oral health studies and included both multiple-choice and open-ended questions. The questionnaire contained 35 questions about adolescents' knowledge about dental and oral health. There were two types of answers: 1. Totally unaware, Unaware, Neutral, Aware, Totally aware; 2. Totally unaware, Unaware, Neutral, Aware, Totally aware. Quantitative data from the questionnaire were analyzed using descriptive statistics to summarize the demographic characteristics and knowledge scores of the participants. Paired t-tests were conducted to compare the pre-test and post-test knowledge scores.

RESULTS

This study shows the importance of targeted educational interventions in improving adolescent knowledge about denture care. Pre-tests and post-tests were conducted as one of the indicators of the success of the counseling. The significant increase in knowledge scores among participants indicates that the education that has been carried out is effective in improving the understanding of students at MA Miftahul Ulum, Melirang, Gresik (Figure 1).

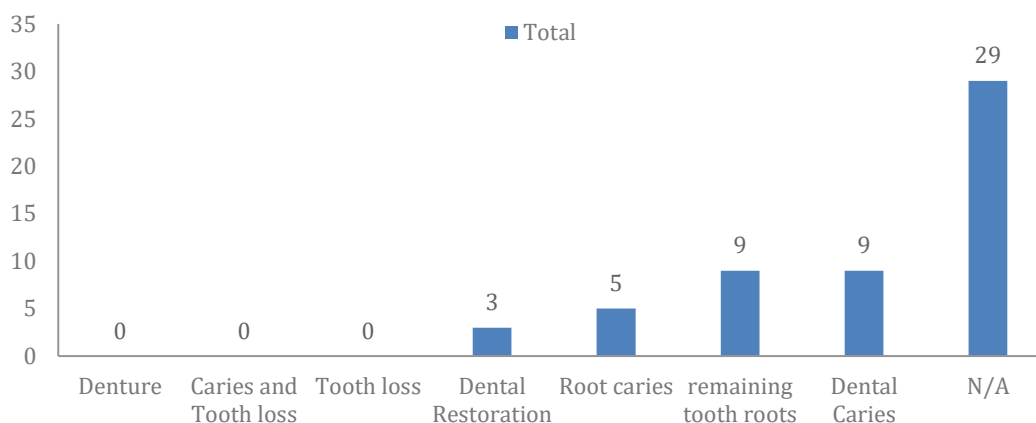


Figure 1. Oral and Dental Examination Result.

DISCUSSION

This study used interactive and practical educational counseling methods, such as live demonstrations and dental simulators of dental phantom mannequins as educational media. This approach has been shown to be very effective in engaging adolescents as participants and increasing retention of health-related information. In addition, knowledge retention and memory play an important role in the effectiveness of educational interventions, especially in the adolescent population. In terms of oral health, including denture care and general oral health, retaining the knowledge gained through educational programs is essential to ensure long-term positive outcomes. Studies have shown that interactive and repetitive learning strategies can significantly improve memory retention among adolescents, leading to sustained improvements in oral health behaviors.^{11,12}

Adolescents are at a developmental stage where cognitive abilities, including memory retention, are still maturing. Therefore, educational approaches that incorporate reinforcement techniques, such as periodic reviews, quizzes, and interactive activities, are particularly effective in this age group. These methods help consolidate information, making it easier for adolescents to remember and apply what they have learned about denture care and overall oral hygiene. Repeated exposure to health information, coupled with practical demonstrations, can significantly increase retention rates and encourage adoption of healthy behaviors. Additionally, expanding the scope of the program to include parents and caregivers could further reinforce the importance of proper denture care, as family support plays a significant role in adolescent health behaviors.¹³

Limitations of this study include the relatively short duration of the intervention, which may not be sufficient to observe long-term behavioral changes. Furthermore, future studies should also consider a longer follow-up period to assess whether the knowledge gained through the educational program results in sustained improvements in denture care practices.¹⁴

This study shows the potential of counseling in community service programs to improve the knowledge of adolescents, namely students of MA Miftahul Ulum, Melirang, Gresik, regarding the importance of using dentures in improving dental and oral health. Activities show that there is an increase in adolescent knowledge and understanding of dental and oral health, as well as the importance of using dentures. This program can contribute to better oral health outcomes and improved quality of life for adolescent denture wearers.

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