

Empowering Communities Through Capacity Building: Dental And Oral Health Screening And Counseling In Kedungwinong, Nguter, Sukoharjo

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Abstract

The main issue for the elderly is the loss and damage of many teeth, leading to difficulties in chewing food. The most common cause of tooth loss is poor oral health, particularly dental caries and periodontitis. Elderly individuals often neglect oral hygiene and frequently complain of dental issues such as loose teeth, cavities, or swollen gums. The purpose of empowering communities through capacity building was to increase awareness of the importance of maintaining overall health, dental and oral health, and to assess the level of knowledge and the status of dental and oral health among the residents of Kedung Winong. The proposed solution to the problem is to increase residents' awareness of maintaining dental and oral health, enhance their knowledge of proper tooth brushing techniques, promote the habit of brushing teeth at appropriate times, and raise awareness about the importance of regular health check-ups as a preventive measure against chronic diseases. Methods of oral health counseling and examinations was chosen to solve the problems with pre test and post test to determine level of knowledge of the participant. The counseling and examination activities for the community in the Muhammadiyah and Aisyiyah branches in Kedungwinong, Nguter, Sukoharjo, were successfully implemented, with enthusiastic and cooperative participation. The activities effectively raised awareness about the importance of dental and oral health.

Keywords: Elderly, Kedungwinong, screening

1. INTRODUCTION

Good results in any field are based on good knowledge. The same applies to maintaining dental health, as good knowledge will support overall health. Teeth and the mouth not only function as the initial gateway for food and drink but also play important roles in digestion, aesthetics, and communication. The mouth is considered the "mirror of dental health" because all diseases can begin to be observed from the mouth. Knowledge is the initial level of learning before progressing further. Through good knowledge, the success rate in skills or behavior is likely to achieve good results as well.

Some common health issues faced by the elderly include toothlessness, toothache due to cavities, periodontal disease, dry mouth, gum inflammation, canker sores, and oral cancer. One of the functions of teeth is for chewing, speaking clearly, and aesthetics. The main issue for the elderly is the loss and damage of many teeth, leading to difficulties in chewing food. The most common cause of tooth loss is poor oral health, particularly dental caries and periodontitis (Anwaristi & Arifin, 2023).

Dental and oral health issues affect nearly all age groups. This occurs due to a lack of awareness about the importance of maintaining health, particularly dental and oral health. Dental and oral health are integral parts of overall health that need to be prioritized by the public. Dental caries is the most common dental and oral disease found in the community. The prevalence of cavities or caries in Indonesia is 88.8%, with the 15-year-old age group having a caries prevalence of 68.5%, and the 65+ age group having a prevalence of 95.0%. These figures highlight that the incidence of caries or cavities is extremely high in Indonesia (Hasan et al., 2024).

Elderly individuals often neglect oral hygiene and frequently complain of dental issues such as loose teeth, cavities, or swollen gums (Sundjojo et al., 2022). Therefore, healthcare

professionals need to emphasize aspects of knowledge, prevention, and treatment for the elderly to prevent other diseases (Sari et al., 2022). Among the 55-64 age group, 29% experience tooth loss or extractions, 15.9% have loose teeth, and among those over 65 years old, 38.6% have cavities, 30.6% have lost or extracted teeth, and 15.5% have loose teeth (Hasan et al., 2024).

During the Inter-professional Education (IPE) activity as preliminary observation, health examinations were conducted, including anthropometric measurements, blood pressure, cholesterol levels, blood sugar levels, and DMF-T and OHI-S assessments for Kedung Winong residents. The examinations revealed that nearly all residents had lost or extracted teeth. By understanding these preliminary observation, awareness of the importance of maintaining both general and oral health can be increased. The purpose of empowering communities through capacity building in Kedung Winong village, Nguter, Sukoharjo was to increase awareness of the importance of maintaining overall health, dental and oral health, and to assess the level of knowledge and the status of dental and oral health among the residents of Kedung Winong.

2. METHODS

The proposed solution to the problem is to increase residents' awareness of maintaining dental and oral health, enhance their knowledge of proper tooth brushing techniques, promote the habit of brushing teeth at appropriate times, and raise awareness about the importance of regular health check-ups as a preventive measure against chronic diseases. Methods of oral health counseling and examinations was chosen to solve the problems (Anwaristi, 2024; Marufah et al., 2021). The counseling and examination activities were conducted on Saturday, December 9, 2023, from 08:30 AM to 2:00 PM WIB at two locations: SMP Ahmad Dahlan Boarding School and Ranting 'Aisyiyah Kedung Winong. These activities were attended by members of the 'Aisyiyah and Muhammadiyah communities in the Kedung Winong area. To assess level of knowledge of participant pre test and post test are applied.

The counseling material is expected to impart an understanding of dental anatomy, the process of caries formation, the correct way to brush teeth, and the importance of proper handwashing techniques. Conducting dental and oral health examinations includes using the OHI-S (Oral Hygiene Index-Simplified) and DMF-T (Decayed, Missing, Filled-Teeth) methods. These examinations are carried out by dental health professionals at each location. Through these examinations, potential dental and oral health issues can be identified early, allowing for more effective preventive measures.

The community was also provided with facilities to consult about their dental and oral health complaints with the on-duty dental specialist. By offering easy and affordable access for the community to consult about their dental and oral health concerns, it is hoped that awareness of the importance of routine dental care can be increased. In addition to providing concrete solutions to dental and oral health issues, this step also creates a space for the community to obtain further information on proper dental care practices and receive personalized advice tailored to their needs.

The examination activities utilized a numbered queue system. While waiting for their turn, residents could listen to counseling provided by health students. The counseling was delivered through posters. Additionally, we distributed door prizes to residents using a random number calling system. The door prizes consisted of household items, which were given to the residents who won the door prizes.



Figure 1. Material Poster

3. RESULTS AND DISCUSSION

The counseling and examination activities for the community in the Muhammadiyah and Aisiyah branches in Kedungwinong, Nguter, Sukoharjo, have been carried out. The local community participated enthusiastically and cooperatively, engaging in dental and oral health counseling and undergoing OHI-S and DMF-T index examinations with assistance from professional students of the Faculty of Dentistry at Muhammadiyah University of Surakarta. Additionally, door prizes and free groceries were distributed to residents who completed all examinations. The event was attended by approximately 250 people, ranging from teenagers to the elderly. Community knowledge could not be tested in more depth because of the large number of participants and it was carried out outdoors. There were many disturbing sounds during the assessment process.

Table 1. Changes in knowledge after counseling

test	Average score
Pre-test	35
Post-test	65

Residents began arriving at the location at 08:30 AM WIB and were directed to the registration table for sign-in and refreshments. Dental and oral health counseling took place simultaneously with the OHI-S and DMF-T index examinations. Participants were called by the organizers according to their queue numbers for the examinations. After completing the examination process, residents were directed to the grocery distribution area to collect their free groceries.

From the examination, the following results were obtained Average DMF-T are high. DMF-T obtained by Sum of D+M+F divided Number of people checked (1033/169). The DMF-T index is an index to assess dental and oral health status in terms of permanent dental caries. Dental caries is generally caused by poor oral hygiene, resulting in the accumulation of plaque containing various types of bacteria. OHI-S was a number that states the clinical condition or cleanliness of a person's teeth and mouth obtained during an examination. Result of OHI-S in Kedung Winong was good (OHI-S: Debris index + Calculus index/Number of segments examined (187.57/169= 1.10).



figure 2. Registration (a) Counseling on Kebun winong Branch (b) oral examination (c)

4. CONCLUSION

The counseling and examination activities for the community in the Muhammadiyah and Aisiyiah branches in Kedungwinong, Nguter, Sukoharjo, were successfully implemented, with enthusiastic and cooperative participation. Overall, the activities effectively raised awareness about the importance of dental and oral health, provided valuable knowledge and preventive measures, and highlighted the need for improved oral hygiene practices within the community.

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