

The effect of educational videos on the level of community knowledge and awareness of the importance of treatment in prosthodontics

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ABSTRACT

In addition to chewing and speaking, teeth play an important role in a person's appearance. The concerns that are often experienced by patients are usually caused by the opinion of the patient who is not included in the planning of treatment in the field of prosthodontics, the patient's understanding and knowledge about treatment in the field of prosthodontics is minimal, and the patient's attitude towards treatment in prosthodontics. Counseling is one of the efforts to increase understanding and knowledge related to prosthodontic treatment. In this study, the patient's level of understanding and knowledge will be evaluated after and before watching the educational video of Prosthodontics, Faculty Dental Medicine, Universitas Airlangga. This research is an analytic observational study with a cross-sectional approach and used a questionnaire before and after being given an educational video. After watching the educational video, there was an increase in knowledge about follow-up care after tooth extraction from those who previously did not know to know as much as 42.5%. It was concluded that there is an increase in public knowledge and awareness about the impact of tooth loss and restoration options after watching educational videos.

Keywords: tooth loss, prosthodontics, treatment, knowledge, video

INTRODUCTION

Apart from chewing and speaking, teeth contribute significantly to an individual's look. Cavities, periodontal disease, and trauma can all result in tooth loss that have an emotional impact due to speech, chewing, and cosmetic problems.¹ Dentures can be used to restore masticatory and aesthetic functions. With the advancement of communication technology, public awareness of dental health has improved, so creating an opportunity to promote denture use in the community. However, Indonesian Basic Health Research or Rikesdas reports that 42.2 % of the Indonesian population with oral health concerns self-medicate. As many as 13.9% of respondents visited a dentist, while the remainder visited general practitioners (5.2%), dental nurses (2.9%), speciality dentists (2.4%), and dental craftsmen (1.3%).² This thing demonstrates that, while public awareness is relatively high, public information about whom to consult for treatment is still quite limited. People choose to self-medicate, even dental care from expert doctors.

Prosthodontic treatment encompasses many procedures, including tooth replacement for individuals with imperfect teeth, rehabilitation following partial or complete tooth loss, fabrication of maxillofacial and finger prostheses, and even treatment of temporomandibular joint (TMJ) disorders. A pros-

thodontist can do all of these procedures. All procedures are performed to restore the function and aesthetics of the entire dental and oral care system and the organs being restored. However, this treatment is less popular and less well-known among the general public. As a result, patients frequently choose to abandon it, lowering their quality of life.

Comfort, function, and aesthetic are the three primary factors that influence patient acceptance and success with any form of prosthetic treatment. Mechanical and biological variables determine comfort and function. Acceptance of aesthetic features is influenced by social and cultural factors and individual attitudes and opinions.³

Concerns frequently expressed by patients stem from the fact that the patient's opinion is not included in the planning of treatment in the field of prosthodontics, the patient's understanding and knowledge of minimally invasive treatment in the field of prosthodontics, and the patient's attitude toward treatment in the field of prosthodontics.^{4,5} Patient non-participation in treatment planning is frequently due to a lack of patient knowledge, and the patient's attitude toward treatment is linked to the patient's capacity to absorb the information provided by the dentist. Thus, it is vital to raise patient awareness and education, as this is necessary for success in performing treatments in prosthodon-

tics that improve these patients' quality of life.

Counselling is one of the strategies used to promote patient comprehension and information about prosthodontic therapy. Through counselling regarding prosthodontic therapy, the larger community and patients will receive accurate knowledge regarding the necessary prosthodontic treatment. Choosing the appropriate strategy and media is critical when counselling the general audience. This is to ensure that the general population absorbs the most information possible.

Health education is delivered through a combination of face-to-face interactions and certain media. Print media, exhibition/display media, audio media, audio-visual media, and multimedia are all examples of media used. Video media can be used to counsel patients about treatment options in the field of prosthodontics. Media in videos containing explanations about treatments that prosthodontic specialists can carry out with visual messages supported by sound and explanations by dentists can increase knowledge and understanding. The effectiveness of extension media is highly dependent on the number of accepted senses involved. The more engaged senses, the more easily counselling messages can be comprehended.⁶

In this study, patients' level of understanding and knowledge will be evaluated before and after watching the educational video of the Prosthodontics Department, Faculty of Dental Medicine, Universitas Airlangga.

METHODS

This research was an analytic observational study with a cross sectional approach, used a questionnaire as a measurement before and after being given an educational video. The research was conducted using cluster sampling. Subjects were taken in Dental Hospital of Universitas Airlangga on May-August 2021. Each member in the selected group will be taken as a subject. The population of this study were all people who had experienced tooth extraction and had never experienced tooth extraction.

To determine the level of community knowledge in missing teeth, measurements were used by answering questions before and after being given an educational video. Questions that will be asked are the history of dental treatment, knowledge about treatment after tooth extraction, knowledge of teeth that have been extracted and not replaced, knowledge of the field of dentistry that manufactures dentures, knowledge of treatments that are not included in the field of prosthodontics,

knowledge of treatment including maxillofacial in the field of prosthodontics, knowledge of jaw joint care including in the field of prosthodontics. The data that has been obtained was then presented to determine the characteristics of the respondents and the mean final score of all samples.

RESULTS

The study was conducted by means of respondents filling out a questionnaire before and after watching an educational video about the importance of replacing missing teeth that had been prepared (fig. 1) to see the differences in the level of knowledge of the respondents. There are 80 total respondents with an age distribution between 16-70 consisting of 27.5% male (22 people) and 72.5% female respondents (58 people). The distribution of all respondents can be seen in fig. 2 and fig. 3A. From the total of 80 respondents, almost 80% had experienced tooth extraction (64 people) and the remaining 16 people had never experienced extraction.

After watching the educational video, there was an increase in knowledge of follow-up care after tooth extraction from those who previously did not know as much as 42.5% (34 respondents) and the rest answered that they knew the procedure (fig. 3B). As many as 70% of respondents (56 people) understand the consequences of not replacing dentures after watching educational videos and the rest already know before watching educational videos. As many as 72.5% respondents (58 people) only understood the scope of prosthodontic treatment after watching educational videos, but only 18.7% of respondents (15 people) knew that TMJ care was included in prosthodontics field before watching the video, the remaining 81.3% (65 people) knew after watching the educational video.

DISCUSSION

This study was conducted to obtain informa-



Figure 1 Snippets from the educational video

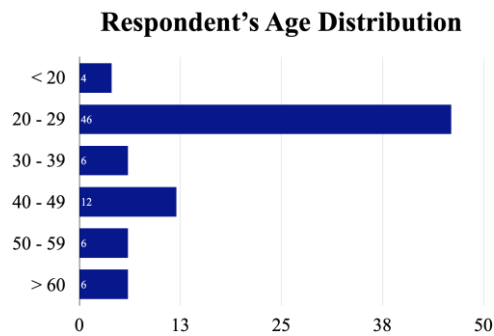


Figure 2 Characteristics of respondent by ages

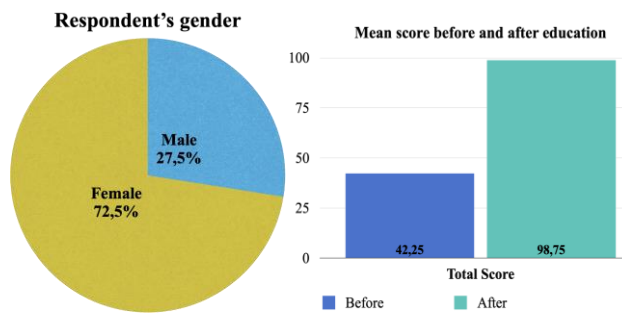


Figure 3A Characteristics of respondent by genders; B the mean score pre and post watching educational video

tion about public knowledge and awareness of the impact of tooth loss and the available restoration options in the field of prosthodontics obtained from the results of questionnaires conducted before and after viewing educational videos. The results obtained showed more female respondents than male respondents. Therefore, the study results will show the influence of female sex characteristics compared to the male gender. The number of female respondents who are more dominant can be caused by women generally pay more attention to appearance than men. In conditions there is tooth loss, especially in the front, generally, women will immediately seek treatment to restore the missing tooth. This study also follows the results of Teofilo and Leles, which stated that women felt the impact of tooth loss on chewing function more than men. This may be caused by women generally prioritize dental health compared to men.⁷

Teeth are one of the organs that have essential functions for the body. Without teeth, some parts can be disturbed. Most of the respondents in this study had experienced toothache. Functional disorders due to tooth loss include masticatory function, speech function, and aesthetic function. For example, a person who experiences tooth loss will result in a less than optimal chewing function of food, the pronunciation of words in certain letters is less than optimal and aesthetic function is disturbed. Disturbances due to tooth loss can be pre-

vented by using dentures to replace missing teeth. Dentures are artificial devices used to replace missing teeth and surrounding tissues.⁸

Knowledge is one of the supporting factors in taking action. Actions based on knowledge will be better than actions not based on knowledge. A person's actions can be seen and influenced after they know something information, and then they will assess or respond to that information.⁹ The results of the study showed that there was an increase in knowledge of follow-up care post tooth extraction after watching educational videos. This shows the importance of the knowledge that a person has to take action, for example, the knowledge obtained from the educational video information provided in this study.

Knowledge can also play a role in developing one's health. Knowledge can be a predisposing factor or a factor that makes it easier for someone to perform a health behavior such as prosthodontic treatment. Health behavior is a person's response to objects related to illness, disease, and the health care system. Services for dentures are also included in one form of dental and oral health services. Public knowledge of the use of dentures can be obtained from anywhere, even though the individual does not wear dentures.⁸ As explained in the educational video, the result of not replacing missing teeth with dentures can cause other surrounding teeth to shift, resulting in gaps in existing teeth and allowing food debris to get trapped in these gaps, and causing bad breath to teeth and caries. In addition, if the extracted tooth is not replaced with a denture, the opposing tooth will be extruded, or a condition where the tooth seems to continue growing and causing it to appear longer, sometimes causing the tooth to wobble until it is indicated to be extracted.

The area of the post-extraction tooth that is not replaced with a denture can cause the tooth arrangement to become disharmonious. If this condition is left unchecked, overtime, it can cause pain and discomfort in the jaw joint, which is usually characterized by a jaw joint that makes a sound when used to chew and limitations when opening the mouth. However, knowledge about jaw joint care is still low. In general, public knowledge about missing teeth and treatment in prosthodontics tends to increase after watching the educational video in this study. Some of the factors that cause a lack of public knowledge before watching educational videos can be caused by educational background and information obtained by the community. Information about dentures can come from anywhere, both

print and electronic media. In addition, whether or not socialization is often carried out by related parties, regarding the function, the use of dentures also plays an essential role in increasing public knowledge. Interests can also affect a person's knowledge. Interest is a tendency or strong desire for something. Interest makes someone try and pursue something to gain deep knowledge.¹⁰

Media in the form of videos in health education is a tool that aims to convey health messages by stimulating the senses of sight and hearing. The existence of information with motion models can increase the respondent's desire to pay attention to what information is presented in the video. The information contained in the video is then clarified with the researcher's explanation to the lecturers so that it can increase the knowledge of the respondents.¹⁰

This study is in accordance with the results of previous research by Sari, et al, that there was a change in the increase in respondents' knowledge before and after receiving health education videos. According to the researcher, the increase of the

respondent's knowledge reflects the respondent's understanding of the material that has been received. The knowledge that has increased in this study is influenced by learning media, namely videos, that make it easier for respondents to remember and perceive the material provided. The existence of video media helps respondents better understand the information to be conveyed through video content to create a better understanding for respondents.¹⁰

Based on this study, it is concluded that there is an increase in public knowledge and awareness of the impact of tooth loss and the restoration options available in the field of prosthodontics after watching educational videos. Several factors cause a lack of public knowledge before watching educational videos can be caused by educational and informational backgrounds. However, the information with motion models in the form of videos, can help respondents to better understand information to be conveyed through video content so as to create a better understanding for respondents.

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