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The Effect of Dental Health Education with Video Media on Knowledge and Interest Odontectomy Procedures

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ABSTRACT

In Indonesia the number of dental and oral problems reaches 57.6%. The results of a preliminary study at a dental practice in Sumberadi Sleman found that 60% were not interested in carrying out an odontectomy. Odontectomy is a method of extracting or removing teeth that cannot grow or grow partially. The influence of dental health education using video media on knowledge and interest in odontectomy procedures is known. This research design is quasi-experimental with a Non-Equivalent Control Group design. The research was conducted in February 2024, the research population was patients at dental practices in Sumberadi Sleman with a sample of 64 respondents. Data were collected using a knowledge and interest questionnaire for odontectomy procedures. Data analysis used the Wilcoxon Test and Mann Whitney Test. The results of the research showed that the frequency of knowledge level was mostly good criteria (93.8%) and the highest frequency of interest in odontectomy (93.8%). The Wilcoxon test showed that there was a significant difference before and after being given education about odontectomy using video media with a p value <0.05. The results of the Mann Whitney test showed that there was a significant difference between promotion using video media and lecture media on knowledge and interest in odontectomy procedures, with a p value <0.05. Education about odontectomy using media influential videos to increase knowledge and interest in odontectomy procedures.

Keyword: Dental Health Education, Odontectomy, Videos, Knowledge, Interests

Introduction

Oral health education or Dental Health Education (DHE) is an educational process that aims to improve oral health through existing educational media. Oral health education is an educational process that arises on the basis of oral health needs which aims to produce good dental health and improve living standards.[1] Knowledge is the result of a person's knowledge of objects through his senses obtained in a scientific way or through the educational process.[2] Knowledge is one of the factors that can shape a person's behavior, lack of knowledge forms the wrong behavior and attitude towards maintaining dental health and oral health individual mouth. [3] Interest is personal and closely related to attitudes. Interests

and attitudes are the basis for prejudices, and interests are also important in making decisions. Interest can cause someone to actively work towards something that has attracted his interest. Interests are not carried from birth but are acquired later. Interest as one of the psychological aspects is influenced by various factors, both internal and external. [4] Internal factors of interest are influenced by ideals, satisfaction, needs, talents and habits. External factors can be in the form of complete facilities and infrastructure, association with parents, and community perceptions of objects and socio-cultural background. [5] The development and growth of teeth is often impaired at the time of eruption. Teeth that do not erupt completely and are buried in the jaw in a position

that is abnormal is called impaction. The most common tooth impaction is the mandibular third molar.

Impaction of the mandibular third molar can also interfere with the masticatory process and often leads to various complications. Efforts to remove impacted teeth, especially in the third molar of the lower jaw, are carried out by surgery called odontectomy. [6]Odontectomy is a method of removing an impacted tooth from its socket by performing a flap or surgery and performing an alveolectomy. [7]The purpose of this study was to determine the effect of DHE using video media on knowledge and interest in odontectomy.

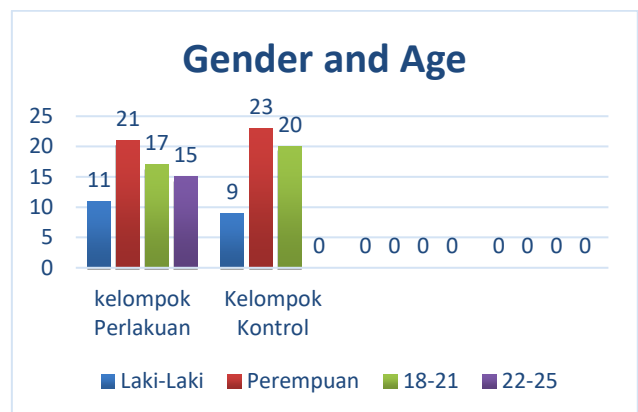
Research Methods

This type of research uses the type of Quasi Experimental with Non-Equivalent Control Group design. The study population was X Dentist Practice Patients Sumberadi Sleman Yogyakarta which amounted to 65 respondents. Sampling using purposive sampling technique, namely the total sample of 64 respondents. Inclusion criteria are patients who have impacted teeth, patients whose third molar teeth have not erupted, age 18-25 years, patients are willing to become respondents. Research Treatment Group Control Group. The study was conducted from January to April at X Sumberadi Dentist Practice Sleman Yogyakarta. The purpose

Data collection using a questionnaire with a total of 20 questions in the form of a check-list with two answers, namely "Yes" and "No". Favorable questions when answering "Yes" were given a score of 1 and "No" answers were given a score of 0. Unfavorable questions when answering "Yes" were given a score of 0 and "No" answers were given a score of 1. How to measure by looking at the answers to the questionnaire using an ordinal scale, scoring with high criteria with a score of 8-10, medium with a score of 6-7, and low with a score of 0-5 and the research instrument using a questionnaire about odontectomy actions. That the required research video is a Youtube video(https://drive.google.com/file/d/1InA7nQpA_AojpS4Da8Oeb-LIZ7RP8CBr/view?usp=sharing) Has obtained an IPR certificate from the Poltekkes

and procedure of the research to be carried out on that day was a pretest before counseling, the time for the pretest was 10 minutes. Then given treatment by providing counseling using video in the treatment group and counseling using lecture media in the control group for 20 minutes, after which a posttest questionnaire was given for 10 minutes. Data processing analyzed data using the Wilcoxon Signed Rank Test and Mann-Whitney U- Test. The study was conducted after obtaining permission from the Health Research Ethics Committee (KEPK) of the Poltekkes Kemenkes Yogyakarta with No.DP.04.03?e-KEPK.1/082/2024 on January 22, 2014.

Results and Discussion



Kemenkes Yogyakarta no 000769869 informed consent, and stationery. The implementation of the study was carried out using a lottery to determine into two sample groups. Distribution of the lottery with number 1 for the treatment group and number 2 for the control group, an explanation was given to the respondents regarding,

Frequency Distribution Based on Gender and Age at X Dentist Practice.

The results of the study in Figure 1 show that the most respondents in the treatment and control groups were female, namely 21 respondents (65.6%) and 23 respondents (71.9%). The highest age in the treatment and control groups was 18-21 years old, namely 17 respondents (53.1%) and 20 respondents (62.5%).

Table 1.
Statistical Description Table

Research Variables	Mean	Standar Deviasi	Minimum	Maximum
Treatment Knowledge (pretest)	6,03	1,332	4	9
Treatment Knowledge (posttest)	8,63	751	7	10
Control Knowledge (pretest)	4,97	782	3	6
Control Knowledge (posttest)	6,00	950	4	8
Treatment Interest (pretest)	6,69	1,203	4	10
Treatment Interest (posttest)	8,56	801	7	10
Control Interest (pretest)	5,47	983	3	8
Control Interest (posttest)	6,50	880	4	8

Table 2.
Frequency Distribution of Pretest and Posttest Knowledge in Treatment Group and Control Group

Knowledge	Treatment Group				Control Group			
	Pretest		Posttest		Pretest		Posttest	
	n	(%)	n	(%)	n	(%)	N	(%)
Both	6	18,8	30	93,8	0	0	2	6,3
Simply	23	71,9	2	6,3	24	75,0	29	90,6
Less	3	9,4	0	0	8	25,0	1	3,1
Amount	32	100	32	100	32	100	32	100

Table 3.
Frequency Distribution of Pretest and Posttest of Interest in the Treatment Group and Control Group

Interest	Treatment Group				Control Group			
	Pretest		Posttest		Pretest		Posttest	
	n	(%)	n	(%)	n	(%)	N	(%)
Low	5	15,6	0	0	16	50,0	4	12,5
Medium	22	68,8	2	6,3	15	46,9	26	81,3
High	5	15,6	30	93,8	1	3,1	2	6,3
Amount	32	100	32	100	32	100	32	100

Table 4.***Mann-Withney U Test of Knowledge and Interest Variables in the Treatment Group and Control Group***

Group	n	Mean Rank	Asymp.sig (p)
Difference In Knowledge	32	44,08	
Difference In Knowledge Of Control	32	20,92	0.000
Difference In Treatment Interests	32	41,31	
Difference In Interest Of Control	32	23,69	0.000

Table 5***Wilcoxon Test of Treatment Group and Control Group***

Group	n	Positive Rank	Ties	Negative Rank	Sign (P-Value)
Behavior	32	30	2	0	0,000
Control	32	30	2	0	0.000

The results of the study in Table 1 show that the mean value of odontectomy knowledge of the treatment group is 6.03 and 8.63, respectively. The mean value of odontectomy knowledge of the control group was 4.97 and 6.00, respectively. The mean value of interest in odontectomy in the treatment group was 6.69 and 8.56, respectively. The mean value of interest in odontectomy in the control group was 5.47 and 6.50, respectively.

The results of the study in table 2 show the results of pretest and posttest measurements of knowledge in the treatment group, knowledge of sufficient criteria as many as 23 respondents (71.9%) at pretest and knowledge of good criteria as many as 30 respondents (93.8%) at posttest. The results of pretest and posttest measurements of knowledge in the control group, knowledge criteria were sufficient as many as 24 respondents (75.0%) at pretest and good knowledge criteria as many as 2 respondents (6.3%) at posttest.

The results of the study in table 3 show the results of pre-test and post-test measurements of interest in the treatment group, moderate criteria interest as many as 22 respondents (68.8%) at pretest and high criteria interest as many as 30 respondents (93.8%) at posttest. The results of pretest and posttest measurements of interest in the control group, moderate interest criteria were 15 respondents (46.9%) at pretest and high knowledge criteria were 2 respondents (6.3%) at posttest.

The results of the study in table 4 show that the average increase in knowledge and interest in the treatment group has an average value of 44.08 and 41.31, where the average value of the treatment group is greater than the control group. This shows that DHE using video media is more effective than conventional promotion in the control group. However, statistically, the significance value of $p=0.000$ was obtained, so $p<0.05$ means that H_0 is accepted and H_a is rejected, so there is a significant

difference in increasing knowledge and interest in the treatment group and control group.

The results of the study in table 5 Wilcoxon test showed a significance value of $p = 0.000$ if the p value (<0.05) then there is a significant effect of DHE. So it can be concluded that there is a significant influence between knowledge and interest in odontectomy before and after being given education using video media in the treatment group and control group.

Based on Figure 1, in the treatment group most of the respondents were female as many as 21 respondents (65.6%), and in the control group most of the respondents were female as many as 23 respondents (71.9%). This is because patients of X Sumberadi Dentist Practice, Sleman are dominated by women. This is supported by research that most of the respondents were female as many as 23 people (60.5%), and in the control group, most of the respondents were female most of the respondents were female as many as 22 people (57.9%)[8].

Frequency distribution based on age in Figure 1, shows the number of respondents aged 18-21 as many as 17 respondents (53.1%) in the treatment group and 20 respondents (65.6%) in the control group. (Zamrodah, 2019) (Zamrodah, 2019) most of the female gender were 17 respondents (68%) and male gender were 8 respondents (32%). So it can be seen that most research respondents are 18-21 years old and the fewest research respondents are 22-24 years old. This is due to the frequency distribution because more patients of the Sumberadi Dental Practice, Sleman are aged 18-21 years. The results of researchers at this age have broader experiences and social relationships so that a person is active in seeking new information and always pays attention to their dental health. Age is one of the factors that can determine a person's maturity to think, act, and learn. Maturity in one's

thinking that can affect both knowledge, attitudes, and one's practice. [9]

Based on Table 1 shows the tabulation of the mean on knowledge and interest in odontectomy action in respondents has changed. In the treatment group, knowledge increased by 8.63, while interest in odontectomy action increased by 8.56. This proves that the treatment group increased more in knowledge and interest in odontectomy compared to the control group. Video media can be used as an option in health promotion activities because video media is considered effective as an educational medium. Video media has a positive influence on knowledge and attitudes. Providing education with video will activate more senses making it easier to understand the information presented. The advantages of video media are that it can be played repeatedly, saves time, and attracts more attention so that it increases the respondent's interest in the material presented. [10]

Based on Table 2, the frequency distribution shows that there is a significant effect between education and knowledge, characterized by an increase in the level of knowledge from adequate to good as many as 30 respondents (93.8%) in the treatment group while the control group had knowledge which was originally sufficient to good as many as 2 respondents (6.3%). These results are supported by the results of research conducted by which states that the effect of promotion on knowledge is characterized by an increase in the level of knowledge from moderate to good as many as 38 respondents (100%) in the treatment group. The control group had sufficient knowledge of good criteria as many as 38 respondents (100%) [11].

Based on Table 3, the frequency distribution shows that there is a significant effect between education and interest characterized by an increase in the level of interest which initially showed that the results of measuring the initial interest level in the treatment group had moderate and low interest after being given education using video media, the most interest was in high criteria, namely 30 respondents (93.8%) in the treatment group while in the control group the most interest was in high criteria, namely 2 respondents (6.3%). [12] The video method can present what cannot be experienced directly by respondents, this is because audio-visual media presents a real situation of the information conveyed to create a deep impression, in addition to accelerating the learning process with the help of audio-visual media being able to increase the level of intelligence and change

passive and static attitudes towards active and dynamic attitudes. [13]

Based on Table 4 Mann-Whitney U shows the average increase in knowledge and interest in the treatment group has an average value of 44.08 and 41.31, where the average value of the treatment group is greater than the control group. This shows that DHE using video media is more effective than conventional promotion in the control group. However, statistically, the significance value of $p=0.000$ was obtained, so $p<0.05$, which means that H_0 is accepted and H_a is rejected, so there is a significant difference in the increase in knowledge and interest in the treatment group and the control group. odontectomy action The results of the Mann-Whitney test showed a significance value of 0.000 ($p<0.05$) at the level of knowledge and interest of the treatment group while the control group was 0.000 ($p<0.05$), which is a significant difference in the level of knowledge and interest in the treatment group means there is a difference in interest after being given a promotion using video media.

Based on Table 5, the Wilcoxon test shows a significance value of $p = 0.000$ if the p value (<0.05) then there is a significant effect of DHE. So it can be concluded that there is a significant influence between knowledge and interest in odontectomy before and after being given education using video media in the treatment group and control group. The results of the Wilcoxon Test showed the effect of video media on the knowledge and interest of patients in odontectomy. The Wilcoxon test results show a significance value of 0.000 ($p < 0.05$) at the level of knowledge and interest of the treatment group and control group, which means that there is an influence after being given a promotion using video media.

A person's awareness of the importance of dental health can be seen from their knowledge. When someone has a high level of knowledge, the attention to maintaining dental health is also high. [14] The media should be able to stimulate or enter information through various senses. The more that is stimulated, the easier the entry of information will be. Video media provides stimulation through the eyes and ears. The combination of information channels through the eyes which reach 75% and ears 13% will provide good enough stimulation so that it can provide optimal results, interesting counseling and involving more five senses will increase a person's knowledge. [15]

Conclusions

Based on the results of research and discussion regarding the effect of DHE using video media on knowledge and interest in odontectomy, it can be concluded that DHE using video media can increase knowledge and interest in patients at X Dentist Practice in Sumberadi, Sleman Yogyakarta.

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