

## Dental Health Education with Zoom Meeting Application During the COVID-19 Pandemic: Is it Effective?



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**ABSTRACT:** Maintenance of dental and oral health is very important during the Covid-19 pandemic because the oral cavity is the gateway for disease germs to enter, therefore it is important for everyone to maintain oral hygiene and health. The goal is to avoid the possibility of damage and disturbance to the teeth and all soft tissues in the oral cavity. Covid-19 is a disease caused by a type of corona virus that attacks the respiratory system, so you are required to wear a mask to protect your nose and mouth. Indonesia is one of the countries exposed to Covid-19.

**Objective:** To describe the effectiveness of dental health education with the zoom meeting application during the COVID 19 pandemic for junior high school students.

**Methods:** This study uses a quasi-experimental method. The sampling technique was purposive sampling, with 68 samples used. The instrument used in this study was a questionnaire about the maintenance of dental and oral health during the COVID-19 pandemic using a google form.

**Results:** Knowledge before and after being given dental health education during the covid-19 pandemic was in the good category before being given education (61.8%). Then, after being given education there were (67.6%) in enough categories before being given education (36.8%) after being given education given education (30.9%) in the less category before being given education there were (1.5%) and after being given education there were (1.5%).

**Conclusion:** there is an increase in knowledge of dental health before and after being given dental health education with the application of zoom meetings in junior high school children.

**KEYWORDS:** Dental health education, zoom meeting application, COVID-19 pandemic

### I. INTRODUCTION

Dental and oral health service is every service dental and oral health Efforts made to improve dental and oral health, preventing and curing disease and restoring the dental and oral health of individuals, families, groups or communities in a complete, integrated and quality manner. Actions are carried out in a planned manner, aimed at certain groups that are sustainable in the fields of promotive, preventive, and simple curative given to the community [1–3].

The School Dental Health Business (UKGS) is an effort to maintain health in the school environment and anticipation of emergency conditions as first aid in the school environment. The main role of UKGS as one of the units formed as health services for students in the school environment must be supported by efforts to increase human resources (human resources). It is necessary to increase the capacity of human resources through training or mentoring on a regular basis to be able to improve the ability to handle and manage UKGS done. Training and mentoring to improve the knowledge and skills of UKGS managers so that they can provide good health education to students. This is a form of individual health efforts as a step for dental and oral health care [3–5].

The Covid-19 pandemic has forced Indonesia to implement physical distancing to minimize the transmission of Covid-19 in the community. The Ministry of Education and Culture implements learning from home policy, through online learning. Online learning has an effect on UKGS activities that are routinely carried out, so that it is not optimal because there is no preparation of UKGS implementation guidelines that follow changes in the implementation of online learning. Given the informal atmosphere of online learning from home, such as face-to-face learning at school, it allows children to snack (consuming snacks) so that the risk Tooth decay increases if these conditions are not balanced with proper oral health maintenance. includes knowledge, attitudes and actions related to dental health maintenance [6–8].

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Covid-19 is a disease caused by a type of corona virus that attacks the respiratory system. Coronavirus Disease 2019 is a new type of disease that has never been previously identified in humans. Covid-19 is currently a serious world problem with the number of cases increasing every day. Attacks everyone regardless of age or gender and has been categorized as a global pandemic. Indonesia is included as one of the exposed countries, where the number of victims continues to increase with the spread and transmission of increasingly rapid and widespread [9,10].

The results of the 2018 Basic Health Research stated that the largest proportion of dental problems in Indonesia were damaged/cavities/sick teeth, which was 45.3%, while the majority of oral health problems experienced by the population were swollen gums and/or abscesses at 14%. When viewed by age, the proportion of 67.3% of those aged 5-9 years, and 55.6% of those aged 10-14 years, the proportion of oral cavity diseases in school-age children is quite high pandemic period. To prevent the increase in the number of toothaches, the next effort is more emphasis on preventive action. One of the causes of dental and oral health problems in the community is behaviour factors or attitudes that ignore dental and oral hygiene. Efforts to maintain dental and oral health and foster dental health, especially for school-age children, need special attention because at this age children are undergoing a process of growth and development, and at this school age children are still very young depend on adults in terms of maintaining dental health and hygiene [10–12].

Maintenance of dental and oral health is very important in this era the Covid-19 pandemic, because the oral cavity is the gateway for germs to enter, it is important for everyone to maintain oral hygiene and health. The goal is to avoid the possibility of damage and disturbance to the teeth and all soft tissues in the oral cavity [13]. Based on the description above, dental health education will be given during the Covid-19 pandemic with the zoom meeting application, which is important to do to minimize the spread of Covid-19.

### II. METHOD AND MATERIAL

The research design used was a quasi-experimental study with a one group pretest and posttest design. It is called a quasi-experiment because this experiment has not or does not have an actual experimental design method, because the variables that should be controlled or manipulated cannot or are difficult to do [14]. The research was conducted at junior high school students DPN 86 Pondok Labu in May 2021. The research sample was taken using a total purposive sampling technique, as many as 86 students. The independent variable in this study was dental health education with the zoom meeting application and the dependent variable was the dental health knowledge of junior high school students.

The instrument used in data collection used a questionnaire sheet to measure knowledge of dental health through the google form. The activity stages are as follows: pre-test by giving a questionnaire via google form and conducting dental health education interventions with the zoom meeting application and one week after the intervention a post-test is carried out by giving a questionnaire. Return via google form to see the changes. This research is processed and analyzed and presented in the form of a frequency distribution.

### III. RESULT

**Table 1. Distribution of knowledge levels before and after dental health education with the Zoom Meeting application**

Knowledge category	Pre-test		Post-test	
	n	%	n	%
Good	42	61.8	46	67.6
Enough	25	38.8	21	30.9
Less	1	1.5	1	1.5
Total	68	100	68	100

Tabel 1 shows that for knowledge before and after being given dental health education in the good category before being given education as many as 42 people (61.8%). Then, after being given education there were 46 people (67.6%) in the enough category before being given education as many as 25 people (36.8%) after being given education as many as 21 people (30.9%) in the less category

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### V. DISCUSSION

Data collection was carried out online due to the Covid-19 outbreak which did not allow direct data collection. The initial stage of the researcher explains the aims and objectives of the researcher to the homeroom teacher. In the first stage, data was collected by distributing questionnaires to DPN Pondok Labu junior high school students, by giving a pretest questionnaire in the form of a google form link, which was sent via a WhatsApp group.

The results of the study on the effectiveness of knowledge before and after dental health education with the zoom meeting application showed that there was a change in children's knowledge after being given dental health education. The pretest activity showed that the results of measuring knowledge before being given dental health education during the covid-19 pandemic that entered the good criteria were 42 people with a percentage of 61.8%. The posttest was given after dental health education counseling was carried out during the COVID-19 pandemic through the Zoom meeting application. The results of this posttest activity which included good criteria were 46 people with a percentage of 67.6%. There was an increase in knowledge from the results of the research due to the students' thinking abilities that developed both insight and intellectuality. Intellectual development is the process of changing the individual's ability to think. Intellectual development means discusses the development of individuals in thinking or cognitive processes or the process of knowing their intelligence to work, learn, imagine [15].

This research was conducted online using the Zoom application, there was an increase in changes knowledge on pretest and posttest scores. There is an increase knowledge occurs after being given dental health education. During the Covid-19 pandemic, students began to realize the importance of maintaining dental and oral health. Knowledge is Knowledge is the result of knowing, and this happens after people perform sensing of a particular object. This is in line with research conducted by Soesanto et al. proved that the knowledge of the dJatipulo community on how to brush their teeth properly and even increased by providing counseling materials with the zoom meeting application [16].

### VI. CONCLUSIONS

Based on the results of the study, it can be concluded there is an increase in knowledge before and after dental health education with the zoom meeting application for junior high school children during the covid-19 pandemic

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