

Article Number :  
389-1466-1-SM  
Received :  
2022-07-14  
Accepted :  
2022-12-13  
Published :  
Volume : 08  
Issue : 02  
Month, Year  
December 2022  
pp.1502-1507

## Little Doctor Virtual Training With Snow Ball Technique In Pandemic Covid 19 Era In Elementary School In Malang

**Merlya Balbeid<sup>1\*</sup>, Dyah Nawang Palupi P<sup>1</sup>, Khusnul Munika L<sup>2</sup>,  
Zefry Zainal Abidin<sup>3</sup>, Trias Arlis Subekti<sup>4</sup>, Renita Rahma Chairu Nisa<sup>4</sup>**

<sup>1</sup> Department of Preventive and Public Health Dentistry, Faculty of Dentistry, Brawijaya University

<sup>2</sup> Department of Periodontics, Faculty of Dentistry, Brawijaya University,

<sup>3</sup> Department of Oral and Maxillofacial Surgery, Faculty of Dentistry, Brawijaya University,

<sup>4</sup> Dentistry Program, Faculty of Dentistry, Brawijaya University, Malang, Indonesia.

\*Author: merlya.fk@ub.ac.id

### ABSTRACT

**Introduction:** Even in this Pandemic Covid 19 the delivery of counseling or promotive materials is not done face-to-face, because it avoids the risk of local transmission Covid-19 virus. **Method:** The method was through audiovisual media facilitated with online meeting zoom and e-Book. This activity was carried out using the snow-ball technique, 6 elementary schools doing this activity. The activity started with dental training by the FKGUB team through the media zoom with room separation in 6 breakout rooms, so a total of 42 participants attended. After that were held for Little Doctors activities to educate 5 friends in their elementary schools, so there was 150 participants.

**Result and and discussion:** Results obtained from the pre-test and post-test, there were significant differences in results, where in the pre-test results the percentage/number of correct answers was below 50%, while in the post-test results the percentage of correct answers was above 50% and some were even 100% correct. **Conclusion:** There is a difference knowledge level oral health of students by little doctor with online education in pandemic Covid-19 Era in elementary school Malang.

### KEYWORDS

**Little doctor, Virtual training, Snowball technique, Pandemic Covid-19**

### INTRODUCTION

The Covid-19 pandemic is a Covid-19 outbreak that affects most countries in the world. Currently (06/05/2020), there are more than 3,727,893 people infected and almost 258,341 people died spread over 214 countries. In Indonesia alone, there have been more than 11,587 cases found and nearly 864 people have died. The virus that causes Covid-19 spreads through droplets. Droplets can spread to other people either directly or indirectly when shaking hands, touching surfaces that have been contaminated with droplets. The Covid-19 protocol has begun to be implemented in several countries in accordance with the

recommendations of the World Health Organization (WHO). Many have started working from home (WFH) schemes [1].

The e-Health era is an era where information and communication of health services utilizes technology. Where in this era people can consult online (telemedicine) and also get advice and health education online too, this is very appropriate to be applied in the era of adapting new habits [2].

In order to realize a caries-free Indonesia 2030, the Ministry of Health established a Dental and Oral Health Committee through the Decree of the Minister of Health Number 189 of 2019 concerning the Committee on Dental and Oral Health. This committee is tasked with assisting

the Ministry of Health in formulating strategic plans and action plans for dental and oral health efforts, advocating with other stakeholders, monitoring and evaluating, and providing recommendations for solving problems related to the implementation of dental and oral health efforts.

To support the government's program, namely increasing promotive and preventive efforts for dental and oral health services, especially at the age of 12, in UKGS activities in elementary schools in the working area of Puskesmas. Even in this New Normal Period, the delivery of counseling or promotive materials is not done face-to-face, because it avoids the risk of local transmission/transmission of the Covid-19 virus. Effective media for conducting health education/promotion in the New Normal era/adaptation of new habits, can be done through social media (Intagram, WhatssApp), mass media, or online meeting media (Zoom, GoogleMeet, or others).

Audiovisual media is media that can display moving objects accompanied by sound. This allows increasing children's attention and concentration during the learning process [3]. One of the software-based conference room media that can display audiovisual media is Zoom Meeting. Zoom is a cloud-based meeting application used for video and audio conferencing, chat fields, and web seminars across computers and smartphones. The zoom device really supports HD and 3D audiovisual quality so that it can make it easier to provide material in every meeting [4].

Online learning or education media with various online platforms, there are several studies that have been published in health journals about this online education. Where online education can still increase knowledge significantly [5]. Health education can increase public knowledge and awareness so that they can participate in maintaining dental and oral health. Dental and oral health education at the age of 6-12 years is very important. At that age, it is a period of changing milk teeth into permanent teeth and a good time for mental

development, giving rise to attitudes, knowledge, and behaviors that support dental and oral health [6].

Pedagogy comes from the Greek *paedagogeos*, which consists of *paider* (child) and *ago* (to lead), so that literally pedagogy means to lead children. In ancient Greek, the word pedagogy means a slave (household supervisor) who supervises the teaching of his master's son or master, when the daughter is not given special instruction, this housemaid escorts, waits and accompanies her master's son to and from school or gym. The word pedagogy is also derived from Latin which means to teach children, while in English the term pedagogy (pedagogy) is used to refer to teaching theory, where teachers try to understand teaching materials, get to know students and determine how to teach them [7]. In this community service activity using the snowballing method, divided into groups, or individually, then each person discusses or trains several other people.

## MATERIALS AND METHODS

The samples of this study is 30 students from 6 elementary schools in Malang, such as Tunjung Sekar 2 Elementary School, Unggulan Al-Ya'lu Elementary School, Tulusrejo 2 Elementary School, Mohammad Hatta Elementary School, MI Nahdatul Ulama Pagelaran, Landungsari 1 Elementary School.

Sampling using purposive sampling technique where respondents who are included in the inclusion criteria that have been made. The data was taken based on the pre-test and post-test scores of 5 multiple choice questions through Google form which were distributed before and after the counseling. Data analysis using Wilcoxon tes.

The counseling in this research used the snowball technique method by dividing the respondents into 6 groups according to the school group. On the day of TOT (Training of Trainers), respondents are considered as Little Doctors enter the breakout rooms at zoom meeting. There were a teacher, a FKG team, and

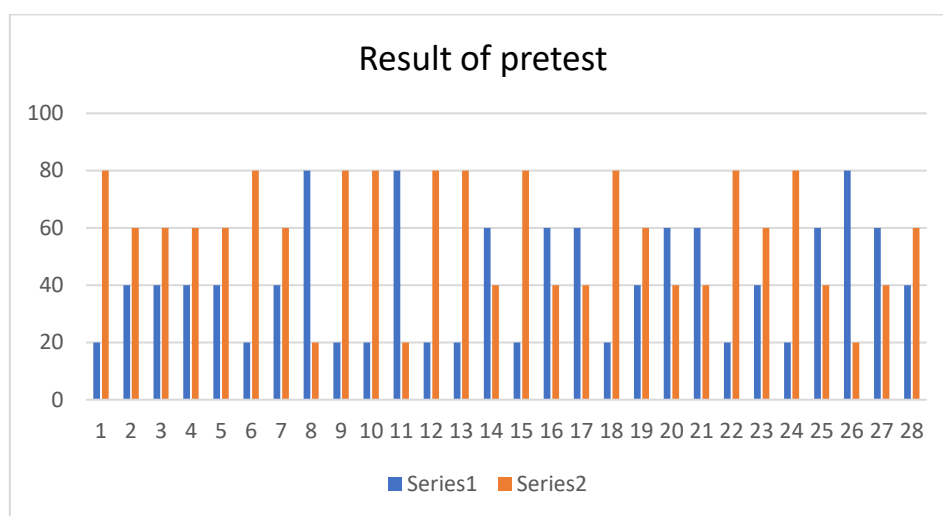
5 Little Doctors in breakout room. Then, in the next week, each Little Doctor will provide counseling to 5 of their friends. Total of students who will provide counseling from Little Doctors are 150 students.

The trainers (FKG team) trained TOT (Training Of Trainers) 5 little doctors from each elementary school, there were 6 elementary schools, using pedagogical training methods with the online meeting zoom media platform.

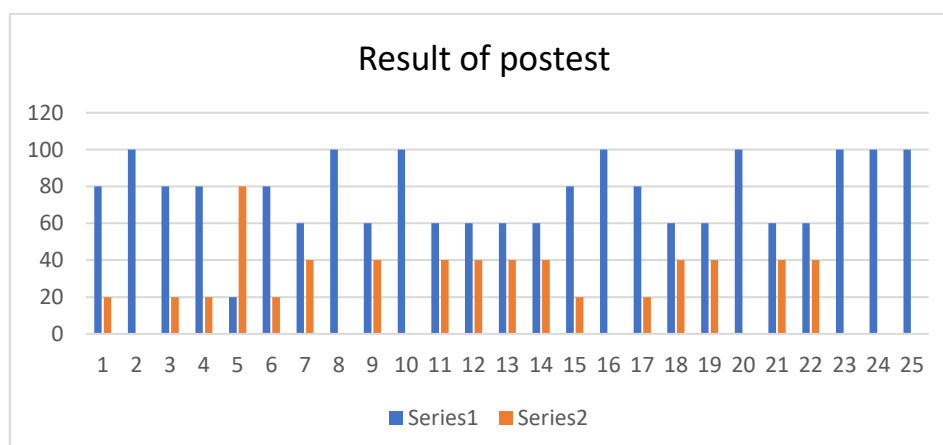
The teaching aids used are E-books, PPT, and animation video of development of teeth and oral health.

The media used in this research are visual media (power point) which contains material on dental growth and dental and oral health, audiovisual (animated video), and ebook (pocket book) which contains a summary of the material that has been given.

**Table 1.** The Result of Pre-test



**Table 2.** The Result of Post-test



## RESULT AND DISCUSSION

Based on the results obtained from the pre-test and post-test, there were significant differences in results, where in the pre-test results the percentage/number of correct answers was below 50%, while in the post-test

results the percentage of correct answers was above 50% and some were even 100% correct.

This study aims to Increase understanding of the prevention and management of dental and oral health in the pandemic era. The research subjects were 5th grade elementary school students with the same age characteristics (11-

12 years). Characteristics of children aged 11-12 years have the ability to think rationally so they can conclude the action to be taken and apply it to the situation that will be faced next [8]. In general, grade 5 elementary school students have good memory, are able to think and solve problems, and are able to concentrate for longer periods of time [9]. Patterns and ways of thinking are influenced by a person's age. The older the age, the better the grasping power and mindset so that the knowledge gained is getting better [10].

Based on the results obtained from the pre-test and post-test, there were significant differences in results, where in the pre-test results the percentage/number of correct answers was below 50%, while in the post-test results the percentage of correct answers was above 50% and some were even 100% correct. This shows that there is a significant difference in the level of knowledge before and after the intervention or training. This shows that the counseling provided with the online snowball technique can affect the level of knowledge of elementary school students.

The extension method used in this study is the snowball extension method. The snowball is an extension method that divides participants into several small groups. This method is more responsive in receiving messages and more effective in conveying material and respondents can play an active role that has been delivered [13].

This study using the snowball method which has divided the respondents into small groups based on the school. There are six elementary schools where each school consists of 5 students. Before the counseling, each group will enter a breakout room in the Zoom virtual meeting application. Each breakout room has one FKG team and one teacher. All students will receive material on dental growth and dental and oral health using PowerPoint media, ebooks, and educational videos. Students who take part in this counseling are considered as Little doctors who will later provide counseling to other students. Each little Doctors will provide

counseling to 5 other friends about the material for growing teeth that have been obtained.

The snowball counseling method is a series of teaching and learning activities when counseling in groups to work together to master the material. This extension method can make students more responsive and active in receiving information to increase knowledge. Students can also convey messages and information they have received to other friends [12]. In a study conducted by Eppy (2019), it was stated that the snowball method could increase knowledge which was marked by an increase in the post-test score in brushing teeth as much as 46.2% for the better. From the research results, it is known that the snowball method can improve students' understanding and practice properly and correctly [13].

The success of outreach efforts to elementary school students cannot be separated from the media used. Through outreach media, the message to be conveyed can be more interesting and easy to understand. The media used in this study are visual media in the form of power points and ebooks, as well as audiovisual media in the form of educational videos contained in power points. Audiovisual media can focus their attention on explaining the material presented and can effectively increase knowledge. This media can stimulate children's brain cells to produce a better understanding of concepts [3]. This research is in line with the research of Dyah Triswari (2019) that audiovisual media is very effective which is used during counseling to attract attention, increase knowledge, and change respondents' behavior. There is a decrease in the OHI-S index score after being given counseling [8]. In addition to these advantages, the simulation method has a more positive impact on knowledge than only using audiovisual media. In the research conducted by drg. Taufan (2018), said that there was an increase in post-test scores after counseling with 3D pop-up fairytale books media [14].

Students who are used as research respondents are 11-12 years old or 5th grade

elementary school. Elementary school-age children are a group that is vulnerable to dental and oral diseases because they still have behaviors or self habits that are less supportive of dental health [11]. Children aged 6-12 years have mixed teeth, milk teeth are starting to be replaced by permanent teeth. The permanent teeth are generally complete by the age of 12, except for the second and third molars. At that age, dental health problems that often arise are caries and tooth position abnormalities, so it is necessary to pay attention to food choices. The role of parents here greatly determines the child's oral hygiene by maintaining and providing the necessary nutrients to avoid problems in the future [15].

Online counseling via Zoom is not a barrier to providing information about oral health. Even though it is in a new normal condition because of the Covid-19 case that is spreading in the world, counseling can be done online through media such as zoom, google meet, and others. This study using the zoom application. Zoom counseling is a good tool for learning because students can use features like the chatbox to ask questions or discuss other things with friends and teachers. This application can also form a breakout room to be able to make small groups so that the snowball method can be achieved [4]. Zoom has a positive impact on the learning process because students become more interactive and have new experiences. Another positive impact also encourages students to keep learning during the pandemic so that they can increase their knowledge [16].

In further research and case studies, extension methods can be used with simulations or using games. The limitation of this research is that this research was conducted online due to the conditions and situation of Covid-19 which could not provide face-to-face counseling.

## CONCLUSION

Based on the research, training of Little Doctors to elementary school students about dental and oral health and development of teeth, it is necessary to provide information and information

with the hope/objective that it will provide dental and oral health education and replacement teeth using the snow balling method. During the pandemic of the COVID-19 pandemic, dental and oral health promotion/counseling activities should continue to run, with online dental and oral health counseling/education activities through the zoom platform media.

## REFERENCES

- [1] Mungkasa, O. Bekerja dari Rumah (Working From Home/WFH): Menuju Tatanan Baru Era Pandemi COVID 19. Jurnal Perencanaan Pembangunan: The Indonesian Journal of Development Planning. 2020; 4(2), 126–150.
- [2] Agus Hadian R. Edukasi Masyarakat menggunakan Digital platform. Direktorat Jenderal Pelayanan Kesehatan. 2019.
- [3] Sopianah, Y., Sabilillah, M. F., & Oedijani, O. The effects of audio-video instruction in brushing teeth on the knowledge and attitude of young slow learners in Cirebon regency. Dental Journal (Majalah Kedokteran Gigi). 2017; 50(2): 66.
- [4] Guzacheva. Zoom technology as an effective tool for distance learning in teaching english to medical students. Bulletin of Science and Practice. 2020; 6(5): 457–460.
- [5] Sabarudin, Ruslin et al. Efektifitas Pemberian Edukasi secara online melalui media leaflet terhadap pengetahuan pencegahan Covid 19 di Kota Baubau. Jurnal Farmasi Galenika. 2020; 6(2); 309-318
- [6] Husna, N., & Prasko, P. Efektivitas Penyuluhan Kesehatan Gigi Dengan Menggunakan Media Busy Book Terhadap Tingkat Pengetahuan



- Kesehatan Gigi Dan Mulut. Jurnal Kesehatan Gigi, 2019; 6(1), 51.
- [7] Hiryanto. Pedagogi, Andragogi, dan Heutagogi serta Implikasinya dalam Pemberdayaan Masyarakat. Dinamika Pendidikan Jurnal; 2017; 22(1) 65-71
- [8] Triswari, D., & Quinta Zashika, R. A. The Effect of Audiovisual Dissemination on Students 13 – 14 Years Old to Oral Hygiene Status. Journal of Indonesian Dental Association. 2019; 2(2): 43.
- [9] Connor, C. M., Radach, R., Vorstius, C., Day, S. L., & Morrison, F. J. Individual differences in fifth graders' reading and language predict their comprehension monitoring development: An eyemovement study. 2016; 19(2), 114–134.
- [10] Miller, L. M. S. Age Differences in the Effects of Domain Knowledge on Reading Efficiency. 2009; 24(1), 63–74.
- [11] Fatimatuzzahro, N., Prasetya, R. C., & Amilia, W. Gambaran Perilaku Kesehatan Gigi Anak Sekolah Dasar di Desa Bangalsari Kabupaten Bantaeng. Jurnal IKESMA. 2016; 12(2), 85.
- [12] Putri, Y. E., & Chatri, M. The Effects of Snowball Throwing (ST) Model Aided by Activity Sheets with Nuances of Problem Solving on Student Skills. International Journal of Progressive Sciences and Technologies. 2019; 15(2): 191–194.
- [13] Eppy Setiyowati, F. The Effect of the Snowball Throwing Method on Changes in Brushing Behavior in 4th Grade Children at Surabaya. Central African Journal of Public Health. 2019; 5(6): 287–291
- [14] Bramantoro, T., Rosandi, D. K., Wening, G. R. S., Setijanto, D., Berniyanti, T., Palupi, R., & Sosiawan, A. Effectiveness of 3D Pop-up Fairytale Books as a Medium of Education to Improve the Basic Knowledge of Dental and Oral Health of Children Aged 4-5 Years. 2018; 191–199.
- [15] Eddy, F. N. E., & Mutiara, H. Peranan Ibu dalam Pemeliharaan Kesehatan Gigi Anak dengan Status Karies Anak Usia Sekolah Dasar. Medical Journal of Lampung University. 2015; 4(8), 1–6.
- [16] Sayem, A. S. M., Taylor, B., Mcclanachan, M., & Mumtahina, U. Effective use of Zoom technology and instructional videos to improve engagement and success of distance students in Engineering. Australasian Association for Engineering Education (AAEE 2017). 2017; 1(1): 1–6.