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Original Research Article

THE EFFECT OF HEALTH EDUCATION BASED ON ANIMATED CARTOON VIDEOS ON THE PREVENTION OF PROP SERUMEN AS A RISK OF CONDUCTIVE DEAFNESS IN STUDENTS IN THE WORK AREA OF THE BULU COMMUNITY HEALTH CENTER

Dwi Anjarwati[1)*], Tiara Putri Riyandini[2)]
[1),2)]Institut Ilmu Kesehatan Nahdlatul Ulama Tuban,
[*]Corresponding Author, E-mail: watianjar771@gmail.com

ABSTRACT

Introduction. Cerumen (earwax) can clump and harden to form a cerumen blockage or cerumen prop. This hardening of earwax occurs slowly and over a long period of time, so we often don't realize it. Lumps of earwax (cerumen prop) are only discovered after they cause a disturbing impact in the form of disturbances or complaints to our sense of hearing. **Method.** This type of research is pre-experimental research using a one group pre-post test design. The population in this study was 54 children with a sample of 48 children under five using simple random sampling. The independent variable in this study is health education based on animated cartoon videos. And the dependent variable is prevention of prop cerumen as a risk of conductive deafness. The instruments in this research were a module outreach program unit and a prop cerumen prevention questionnaire. **Result & Analysis.** The research results obtained through the Wilcoxon test were p-value 0.000 < -0.05, it can be concluded that H1 was accepted, the difference between the results of preventing prop cerumen with health education based on cartoon animated videos for the pre test and post test. **Discussion.** This research shows that preventing prop cerumen with health education based on cartoon animation videos has an effect on preventing prop cerumen, shown by almost all students having good knowledge after receiving the intervention compared to before the intervention.

Keywords: Health education, Prevention of prop cerumen, Students

INTRODUCTION

Earwax, or often considered as earwax, can normally be found in the ear canal. Excessive earwax production that cannot migrate out can block the ear canal and cause hearing loss called earwax prop blockage. A person can absorb information through the hearing process about 20% better than absorbing information from reading activities.

Hearing loss in school-age children is mostly caused by earwax blockage (cerumen prop). The reason children often experience ear disease is because the child's eustachian tube is shorter, wider and flatter than adults so that they are at greater risk of experiencing otitis media or middle ear infections, this can cause a decrease in hearing threshold of 5 - 10 dB (WHO, 2021). Research by Charisma (2019) states that there is a relationship

between cerumen blockage and student hearing loss. Hearing loss in school children will cause hearing loss so that children have difficulty receiving material during the learning process which can have an impact on the level of children's learning achievement at school (Martini et al., 2017; Ministry of Health, 2013).

Earwax (cerumen) can clump and harden to form a cerumen blockage or cerumen prop. The hardened earwax clump occurs slowly and over a long period of time, so we often don't realize it. Earwax clumps (cerumen prop) are only discovered after they cause disturbing effects in the form of disorders or complaints in our hearing.

Hearing loss is still a problem in Indonesian society. Hearing loss is experienced by more than 5% of the world's population and around 34 million are found in children (WHO, 2021). In Indonesia, 16.8% of the population was found to have hearing loss and 0.4% had deafness. Tuban is one of the districts in East Java, which has many hearing disorders. The sense of hearing or ear is a sense that is needed for hearing and communication by humans.

Hearing loss can occur in adults, children and newborns. Data from RSUD dr. R. Koesma Tuban for the period January 2020 to July 2022 provides an overview of the top ten diseases. The first to fifth most common ear and hearing diseases are otitis externa (25.56%), acute otitis media (22.46%), otitis media with stenosis (16.15%), chronic purulent otitis media (7.56%), and sensorineural hearing loss (5.72%) (KSM ENT KL RSUD R. Koesma. 2022).

Based on the results of the screening examination in the Bulu Health Center work area, there were 27 grade 1 elementary schools found 4 schools with the most cerumen after ranking the data tabulation found 54 children with cerumen, namely UPT SDN Tengger Kulon, SD Mohamadiyah Bulu, SDN Tlogoagung 1 and SDN Tlogoangung 2 (Bulu Health Center, Screening Year 2024) Because they rarely clean their ears properly and do not understand the dangers of cerumen if not cleaned, children with cerumen experience hearing loss mostly due to earwax blockage (cerumen prop). Cerumen can block the ear canal, causing mechanical obstruction to sound waves, causing hearing loss.

Children who are generally of school age. These children are usually required to be independent in maintaining their own hygiene. Ear hygiene and health still receive less attention for children. This is proven based on research conducted by Darmito (2018), hearing loss problems have a significant relationship with students' academic achievement. The habit of cleaning your own ears using cotton buds often causes bad things that need to be watched out for. It should be noted that earwax consists of 2 types, namely wet and dry. Dry earwax tends to be brittle, dry and varies in color from light to brownish gray and is usually more dominant in people of Asian and Native American descent, while wet earwax is often dark, wet and sticky. Wet earwax is usually dominant in people of African and European descent (Horton et al., 2020).

If wet earwax is often scraped, it will easily become solid so that it more often causes non-permanent hearing loss and if it occurs in school children, it will affect their academic performance. The negative impact of the habit of cleaning your own ears if it is too deep will cause severe headaches and can even cause a ruptured eardrum. Can cause infection due to irritation when cleaning earwax yourself. Fungus also often grows in ears that are often scraped. The habit of cleaning your

own earwax will cause earwax / earwax to be too clean, even though earwax has several functions, namely protecting the ear canal from bacteria because earwax is known to have bactericidal properties that are thought to come from fatty acid components, lysozyme and immunoglobulin. Earwax also functions as a means of transport in the process of removing epithelial debris and contaminants from the tympanic membrane.

In addition, the process of removing the remaining stratum corneum that is released will also be removed. Another function of cerumen is as a lubricant for the external auditory canal by maintaining an acidic pH environment and preventing dryness so that fissures do not form in the epidermis of the ear canal. The natural cleaning mechanism of cerumen in the external ear canal involves the mechanism of epithelial migration in the external ear canal with the help of jaw movements. The outer layer of skin (epidermis) in the ear canal, along with the tympanic membrane layer will migrate out. This migration mechanism can help heal small wounds and can move scars out and transport cerumen out of the ear canal (Horton et al., 2020). The negative impact of the habit of cleaning your own ears if it is too deep will cause severe headaches and can even cause a ruptured eardrum. Can cause infection due to irritation when cleaning earwax yourself. Fungus also often grows in ears that are often picked. The natural cleaning mechanism of cerumen in the external ear canal involves the mechanism of epithelial migration in the external ear canal with the help of jaw movements. The outer layer of skin (epidermis) in the ear canal, along with the tympanic membrane layer will migrate out. This migration mechanism can help heal small wounds and can move scar tissue out and transport cerumen out of the ear canal (Horton et al., 2020)

Hearing loss and tinnitus and tubal occlusion are conditions that also affect daily activities, where these health problems can interfere with a person's communication and psyche. Hearing loss and tinnitus can be experienced by anyone, regardless of age. If it occurs in old age, this condition occurs due to the process of degeneration or decreased function of the hearing organ, while if it occurs in children or adolescents, it can be caused by problems with the outer or middle ear, or because of noise. The habit of listening to music using earphones for a long time and at high volume also greatly affects hearing (Yuliyani et al., 2022).

There are so many variations of health problems in the field of ENT-KL that can occur in society where these conditions can cause problems both socially, work, school and even economically, so it is very necessary to carry out health promotion or education efforts through counseling (Suprayitno et al., 2021). This educational activity can be carried out using various methods, in an interesting way so that it can increase public knowledge. Providing health education with conventional methods is still an effective choice to be carried out to the community apart from other online media (Yusnitasari et al., 2022).

Conducting education to overcome problems of hearing loss and deafness, (1) controlling risk factors and strengthening health Communication, Information, and Education (KIE) to children (2) early detection activities in at-risk groups through health screening activities (3) strengthening community access to comprehensive and quality health services. By conducting health education so that children understand how to clean earwax properly and correctly.

Based on the data and background above, the researcher is interested in

conducting a study entitled "The effect of health education based on animated cartoon videos on preventing cerumen prop as a risk of conductive deafness in students in the Bulu Health Center work area.

METHOD AND ANALYSIS

This study is a quantitative study using an experimental research type, with a pre-experimental design using a one group pre-post test design. In this study, purposive sampling was used, namely a sample determination technique based on the consideration of researchers or evaluators about which samples are most useful and representative. The sample of this study was part of the first grade elementary school students in the Bulu Health Center work area, as many as 48 respondents who met the inclusion criteria. The population was part of the first grade elementary school students in the Bulu Health Center work area, as many as 54 respondents.

Based on the data obtained by the researcher by using the questionnaire sheet in the pre-test and post-test, then the editing process was carried out by selecting the data that had been entered and checking the answers. The next step is coding for each variable that is appropriate and listed in the operational definition, then the next step is tabulating into a table which is then analyzed using the Wilcoxon Nonparametric Tests test with a significance level of α = <0.05 and the calculation is carried out with SPSS software version 21 for windows, the results of the Asymp value were obtained. Sig. (2-tailed) = 0.000 which means that the smaller the p-value, the more significant the results of the study, so that p = 0.000 <0.05 then H1, is accepted, meaning that there is an influence of animated cartoon video-based media on knowledge of preventing cerumen prop as a risk of conductive deafness in students in the Bulu Health Center work area.

RESULTS

Table 1 Characteristics Based on gender, age, occupation, last education, length of hospitalization

Characteristic	*F*	Percentage
Age		
6 years	12	25,0%
7 years	36	75,0%
Gender		
Man	29	60,4%
Women	19	48 %
Total	169	100%

Based on the table above, most of the respondents were 7 years old, namely 36 respondents or 75.0%. Most of the respondents were male, namely 29 respondents or 60.4%.

Table 2 Distribution of cerumen prop prevention as a risk of conductive deafness in students in the Bulu Health Center work area before being given health education based on animated cartoon videos in 2025

No	Prevention of cerumen	*f*	percentage
1	Not euough	32	66,7%
2	Enough	16	33,3%
3	Good	0	00,0%
	Total	48	100%

Based on table 5.3 above, it can be seen that the majority of 32 (66.6%) do not understand much about preventing cerumen.

Table 3 Distribution of cerumen prop prevention as a risk of conductive deafness after being given health education based on animated cartoon videos to students in the Bulu Health Center work area in 2025

No	Prevention of cerumen	*f*	percentage
1	Not euough	0	00,0%
2	Enough	5	10,4%
3	Good	43	89,6%
	Total	48	100%

Based on the table 5.4 above shows that almost all 43 (89.6%) have good knowledge.

Table 4 Distribution of the Influence of Health Education Based on Cartoon Animation Videos on the Prevention of Cerumen Prop as a Risk of Conductive Deafness in Students in the Bulu 2025 Health Center Work Area

	Prop cerumen prevention			Total
	Not euough	Enough	Good	
Pre - Test	32 (66,7%)	16 (33,3%)	0%	48 (100,0 %)
Post - Test	0%	5 (10,4%)	43 (89,6%)	48 (100,0%)
Wilcoxson signed Rankn Asymp.Sig.(tailed) = 0,000				

Based on the table 5.6, Shows that out of 48 (100%) respondents before being given health education, the majority had poor understanding, namely 32 (66.7%) respondents. Meanwhile, after being given health education based on animated cartoon videos, the respondents' understanding changed, almost all children understood prevention methods, namely 43 (89.6%) respondents.

DISCUSSION

Identification of prevention of cerumen prop as a risk of conductive deafness in students in the Bulu Health Center work area before being given health education based on animated cartoon videos.

Based on the results of research conducted by researchers using a questionnaire on the prevention of cerumen prop on students in the Bulu Health Center work area regarding the prevention of cerumen prop as a risk of conductive deafness, it was found that most of the 32 children (66.6%) had a lack of understanding before the animated cartoon video-based education was carried out.

The results of this study are in line with previous research conducted by Mayang et al. (2021). The Effect of Using Zoom Meeting-Based Animated Video Learning Media on Elementary School Students' Science Interests and Learning Outcomes. However, classes that were not given the media had the same enthusiasm for learning as usual and after being given a questionnaire on student interests, many did not like animated video learning media. There may be several factors that influence this, namely students do not know what animated video learning media is, then students are comfortable with the media that teachers usually use during this pandemic, namely PPT and WAG, which causes a lack of interest in class V-A students.

However, on the other hand, there are still patterns of behavior that are lacking in preventing earwax, such as not cleaning the ears properly, avoiding the use of objects such as chicken feathers, cotton buds, pencils, needles because the use of these objects can cause earwax to be pushed further into and injure the ear. This is an indication that not everyone has a good understanding or awareness of the importance of maintaining the cleanliness of their ears. This is a serious problem because poor ear care can cause various complications, ranging from itching, ringing, infection, conductive deafness, to hearing loss.

One of the main factors causing non-compliance in ear hygiene is the lack of

proper education about this disease. Many people still think that earwax is just a trivial matter, when in fact there are many contributing factors, such as rarely cleaning the ears, cleaning the ears in the wrong way. Students need to be given more understanding that earwax is not just a disease that can be controlled by cleaning alone but also requires the right way to clean the ears and the right time.

In addition, lack of motivation and support from the environment can also be the cause of someone having difficulty maintaining a healthy lifestyle. Some sufferers may feel that changing health patterns and understanding how to care for their ears is something that is troublesome or difficult to do in the long term. Therefore, the role of family and medical personnel is very important in providing moral support and ongoing education so that the prevention of earache is more motivated to manage their ear health better. Mentoring programs, support groups, and with medical personnel can help sufferers feel more motivated and easier to carry out the necessary lifestyle changes.

On the other hand, there is still an assumption among students that earwax prop is not a dangerous disease as long as someone does not experience severe symptoms. This is a mistaken view, because earwax prop can damage organs of the body slowly without being realized. Many sufferers only realize the serious impact of this disease when severe complications have occurred, such as ear irritation due to unhealed wounds. Therefore, it is important to instill awareness from an early age that managing ear hygiene is not just about avoiding pain or discomfort, but also about preventing permanent damage to the body.

In addition, bad habits such as ear digging and lack of understanding are the main factors that worsen the condition of earwax. The wrong way to clean the ears causes more earwax to accumulate. Therefore, it is important for students who are affected by earwax to understand that preventing earwax in the right way is not only temporary, but must be applied for life. The right tools, the correct number of times to clean the ears, and compliance with proper ear care must be part of the daily habit, not just a momentary effort when the ear hurts.

The results of the study found that some sufferers felt the need to undergo a cerumen cleaning examination which showed an awareness to pay more attention to their health. This is a positive step that needs to be supported by adequate health facilities and easier access to medical personnel. The government and health institutions also have a role in providing more affordable health services and wider education about cerumen prop as a risk of conductive deafness.

Ultimately, success in preventing earwax props is highly dependent on the individual's own commitment. Without high awareness and discipline, it is difficult for someone to maintain ear hygiene in the long term. Therefore, a change in mindset that earwax props are earwax that can be controlled with consistent effort must be cleaned. With a combination of good education, support from family and medical personnel, and adequate health facilities, earwax can have a better quality of life and prevent the risk of more serious hearing loss in the future.

Identification of prevention of cerumen prop as a risk of conductive deafness after providing health education based on animated cartoon videos to students in the Bulu Health Center work area.

From the research results, it can be seen that almost all respondents (43) (89.6%) had a better understanding of preventing cerumen prop after being given health education based on animated cartoon videos as a risk of conductive deafness.

The results of this study are in line with previous research conducted by Moch Sandika Gustian in 2024, The Effect of

Anemia Education on Increasing Knowledge of Anemia in Adolescent Girls at SMKN 1 Ciamis. The combination of education in schools with appropriate promotional methods in implementation and application is a strategic step to improve health levels. They emphasize the importance of media in health education as a tool to convey material, although the media is not the only determining factor for success in health education.

Earwax prop is one of the ear conditions that requires long-term ear care and high discipline from the sufferer. Based on the data presented, it can be seen that there is a change in understanding about earwax prop prevention before and after being given health education based on certain animated cartoon videos. The majority of individuals experienced an understanding of earwax prop prevention after being given health education, which indicates that interventions such as health education, causes of earwax prop, earwax prevention, impact of earwax, characteristics of earwax containing earwax and compliance with proper ear care contribute to controlling the prevention of this disease. However, not all individuals showed a significant decrease, indicating that there are various factors that influence its success.

The Importance of Compliance in Earwax Prop Prevention Non-compliance with earwax prop prevention can be caused by various factors, including lack of awareness of the dangers of ear complications, discomfort in earwax prop prevention, and minimal support from the surrounding environment. Some sufferers may feel that as long as they do not experience severe symptoms, their condition is still safe. In fact, earwax if left to accumulate causes conductive deafness which interferes with learning activities.

The Role of Education in Raising Awareness of Earwax Prop Prevention. In addition, education should not only be given to sufferers, but also to their families and those around them. Families have a big role in helping children in preventing earwax prop health. If families do not understand how to clean their ears properly, they may not provide enough support, for example by continuing to clean their ears with the wrong tools and the wrong way. Therefore, a broader educational approach that includes the family and the environment around the sufferer is very important to ensure the success of education.

Social and Environmental Factors in Ear Wax Prevention In addition to medical and educational factors, social and environmental aspects also play a major role in ear wax prevention. Many students who are affected by ear wax feel itchy, ringing or even sick due to their condition. This lack of understanding can affect the habit of cleaning ears in the wrong way and compliance with prevention. Therefore, prevention should not only focus on physical aspects, but also on the surrounding environment.

Support from a community or support group can be an effective solution to help respondents feel more motivated in maintaining their health. In such groups, respondents can share experiences, provide emotional support, and get practical tips on living a life with proper ear hygiene. This can help them overcome feelings of protection and be more enthusiastic in undergoing healthy lifestyle changes. The importance of understanding prevention, characteristics, impacts, and how to care for From the available questionnaire, it can be seen that there are still respondents who often avoid proper ear care. In fact, this second factor is the main element in managing students' motivation to maintain ear hygiene.

Cleaning the ears properly can help ear hygiene, control ear hygiene and reduce the risk of hearing loss. Therefore, earwax prevention should be given an understanding that ear hygiene is not a burden, but an important part of their ear care.

In addition to the method, tools, and time are also very important in preventing earwax. Many students still have the habit of cleaning their ears using catten bad and sharp objects that can cause earwax to go deeper. Education about proper prevention, such as cleaning the ears 3 times a week using a clean cloth soaked in warm water only on the outside of the ear, not inward because it can cause trauma due to pain, earwax can come out on its own with jaw movements when eating and swallowing with an understanding of low earwax prevention, the right tools to clean the ears, and the right time how many times to clean the ears, must be checked by an ENT doctor or the nearest health center so that students can control the level of ear cleanliness.

In addition, a broader health campaign needs to be conducted to raise public awareness about the dangers of earwax props and the importance of prevention. Programs such as free ear examinations, counseling on healthy lifestyles, and training for medical personnel in treating students and communities with earwax props can help reduce the number of hearing disorders.

Based on the available data, it appears that interventions in the prevention of cerumen prop can provide positive results in the prevention of cerumen prop, although there are still some challenges that need to be overcome. Compliance factors, education, social support, and access to health services are key elements in determining the success of cerumen prop prevention.

Earwax is an ear condition that can be cured instantly, but it is a condition that requires patience in treating it. With a combination of good education, motivation from the surrounding environment, and access to adequate health facilities, those with earwax have a better quality of life and reduce the risk of more serious complications in the future. Therefore, it is important for all parties, including medical personnel, government, families, and the wider community, to work together.

Analysis of the influence of Health Education based on animated cartoon videos on preventing cerumen prop as a risk of conductive deafness in students in the Bulu Health Center work area.

From the results of the study conducted by the researcher, it was found that 48 (100%) respondents before being given health education, most of them had poor understanding, namely 32 (66.7%) respondents. Meanwhile, after being given health education based on animated cartoon videos, almost all respondents experienced changes, 43 (89.6%) respondents understood how to prevent good cerumen prop as a risk of conductive deafness.

The analysis in this study used the Wilcoxon Nonparametric Tests with a significance level of $\alpha = <0.05$ and the calculation was carried out using SPSS software version 21 for windows, the results of the Asymp. Sig. (2-tailed) = 0.000, which means that the smaller the p-value, the more significant the results of the study, so that $p = 0.000 <0.05$ then H 1 is accepted, meaning that there is an effect of vidon cartoon media on preventing cerumen prop as a risk of conductive deafness in students in the Bulu Health Center work area.

The results of this study are in line with previous research conducted by Stella Eka Sari (2021) The Effect of Education Using Animated Videos on Dental and Oral Health Behavior in Elementary School Children (Study at State Elementary School 1 Tunggulrejo, Tuban Regency) There is an effect of education using animated videos on dental and oral health behavior in elementary school children at SDN Tunggulrejo Tuban. So it is recommended for school principals to integrate dental health education programs with the school curriculum, including regular sessions on dental health using animated videos. Animated Videos, Dental

and Oral Health, Elementary School Children.

Students who have been given an overview of health education based on animated cartoon videos on the prevention of earwax props as a risk of conductive deafness, many have experienced changes in understanding the prevention of earwax props, but some remain the same or do not understand. Because the health education given is the prevention of earwax props, so that respondents cannot remember the education that has been given, another factor in triggering less attention in caring for the ears.

Based on the description of theory and facts, the researcher argues that changes in students' social interactions can be seen from the results of the comparison between the pre-test and post-test showing significant changes. In addition to the scores obtained, the difference can also be seen from the results of observations that show changes. This statement is also supported by the results of the post-test that the prevention of cerumen prop as a risk of conductive deafness has an increase in the number of scores from the post-test questionnaire.

The results of the study showed that students who had an increase in average earwax were caused by respondents only knowing the basic concept of cleaning ears in general but did not know how to do self-care for the ears such as setting the time and how the recommended tools were used, so that respondents were at risk of complications and hearing disorders.

From the results of the study it can be explained that the intervention carried out clinically is beneficial, which can reduce the incidence of conductive deafness. This requires the role of nurses in helping students who have earwax. Meanwhile, researchers consider this intervention as a new approach, especially nurses to provide an important role in caring for the ears, the intervention carried out has significant results in preventing earwax.

The success of the prevention was due to the provision of health education based on animated cartoon videos running well and carried out with SAP implementation instructions. The success of this therapy was also supported by the role of the students themselves, the principal and midwives of the Bulu Health Center working area, and a supportive environment, so that it can have a positive impact on increasing the prevention of earwax prop as a risk of conductive deafness in students who have earwax prop in their ears

CONCLUSION

The results of the study can be concluded as follows

1. Most of the prevention of cerumen prop before using animated cartoon video-based health education for female students in the Bulu Health Center work area was given less.
2. Almost all prevention of cerumen prop after using animated cartoon video-based health education for female students in the Bulu Health Center work area was bright.
3. There is an effect of health education using animated card videos on the prevention of cerumen prop as a risk of conductive deafness, as evidenced by. the results of the Wilcoxon Signed Ranks Test obtained a p-value = 0.000.

REFERENCES

Bungaalsa, S. K. (2024). Edukasi Telinga Tentang Serumen Prop Dan Cara Membersihkan Telinga Di Poli Rs Pertamina Bintang Amin Bandar Lampung. Jurnal Abdimas Kedokteran & Kesehatan, 2(2).

Dewi, N. P., Vani, A. T., Triansyah, I., Abdullah, D., & Hansah, R. B. (2022). Edukasi Dampak Penggunaan Cotton Buds untuk Membersihkan Telinga pada Siswa

SMP YARI School Padang. Jurnal Abdimas ADPI Sains dan Teknologi, 3(2), 36-39

Hakim, G. R., Sangging, P. R. A., & Himayani, R. (2023). Serumen Prop sebagai Faktor Risiko Tuli Konduktif. Medical Profession Journal of Lampung, 13(4.1), 182-185.

Latif, S. A., Syafri, M., & Pannyiwi, R. (2022). Analisis Pengaruhi Health Education Terhadap Peningkatan Pengetahuan, Sikap Dan Perilaku Lansia Pada Kejadian Hipertensi. Jurnal Ilmiah Amanah Akademika, 5(1), 52-60.

Lopo, C., Sulistiana, R., Liwang, M. N. I., & Haruna, N. A. (2022). Ekstraksi Serumen Telinga dalam Kegiatan PGPKT Ear Cerumen Extraction in PGPKT Activity. Jurnal Medical Profession (Medpro), 4(1), 22-28.

Manalu, A. S., Naibey, R., & Simatupang, T. (2024). Hubungan Serumen Prop terhadap Pendengaran Siswa Kelas 5-6 di SD Inpres 17 Kota Sorong. Papua Medicine and Health Science, 1(1), 23-30.

Melati, T., Agustawan, D., Nasution, D. P., Riyadi, V., & Abdillah, F. (2024). Tingkat Kesadaran Terhadap Kesehatan Telinga Dan Pendengaran Di Masyarakat Ciangsana-Nagrak. Jurnal Pengabdian Masyarakat Trimedika, 1(1), 72-83.

Mustofa, F. L., Oktobiannobel, J., Wibawa, F. S., & Megawati, S. (2021). Hubungan antara penggunaan cotton bud dengan gangguan pendengaran terhadap pasien serumen obsturan di RS Pertamina Bintang Amin Bandar Lampung. MAHESA: Malahayati Health Student Journal, 1(3), 222-229.

Ndoen, P. D. M. (2023). Gambaran Tingkat Pengetahuan dan Perilaku Membersihkan Liang Telinga Terhadap Kejadian Impaksi Serumen pada Mahasiswa FK UKI Angkatan 2020-2021 (Doctoral dissertation, Universitas Kristen Indonesia).

Saraswati, L. D. (2019). Factors Associated with Cerumen Impaction in the Coastal Elementary School (Case Study in 1st Grade of Five Elementary Schools, Bandarharjo Health Centers Work Area, in North Semarang).

Septianari Paramesti Sulistiana, B. (2022). PENGARUH SUMBATAN SERUMEN TERHADAP INDEKS PRESTASI BELAJAR SISWA SEKOLAH DASAR Studi Observasional pada Siswa Sekolah Dasar di SD Negeri 01 Wiradesa dan SD Negeri Karangjati Wiradesa Tahun Ajar 2020/2021 (Doctoral dissertation, Universitas Islam Sultan Agung).

Wardani, A. T. W., & Sulistyanto, A. (2022). Perilaku Masyarakat terhadap Kebersihan telinga di Desa Muktiharjo Lor, Genuk Semarang. Jurnal ABDIMAS-KU: Jurnal Pengabdian Masyarakat Kedokteran, 1(3), 96-102.

Widiyanto, P., & Mulyaningsih, E. L. (2015). Pengaruh pengambilan serumen terhadap peningkatan prestasi belajar pada siswa sekolah dasar di wilayah kerja puskesmas mertoyudan I kabupaten magelang. Journal of Holistic Nursing Science, 2(1), 10-18.

Widuri, A. (2021). The Influence of Chewing Habits on the Degree of Impacted Cerumen. Mutiara Medika Jurnal Kedokteran dan Kesehatan, 21(1), 6.

Wijaya, B. A., Ningsri, M. A., Wiratama, M. K., Prayogo, M. D. H., Wijaya, I. G. B. A., & Alya, A. D. P. (2024). Penyuluhan Bahaya Mengorek Kuping Dengan Cotton Bud di Rumah Sakit Pertamina Bintang Amin. Jurnal Abdimas Kedokteran & Kesehatan, 2(2).

Wijaya, V. K., Rahayu, M. L., Saputra, K. A. D., & Suanda, I. K. (2022).

Tingkat pengetahuan dalam membersihkan telinga pada mahasiswa psskpd fk unud angkatan 2019 dan 2020. Jurnal Medika Udayana.

Yolazenia, Y., Asmawati, A., & Harianto, H. (2023). Pemeriksaan dan Edukasi Gangguan Pendengaran Pada Anak Panti Asuhan. Berdikari: Jurnal Inovasi dan Penerapan Ipteks, 11(1).

Yolazenia, Y., Asmawati, A., & Ulfa, L. (2022). Edukasi Menjaga Kesehatan Telinga dan Pemeriksaan Telinga pada Anak Panti Asuhan di Desa Rimbo Panjang, Kecamatan Tambang, Kabupaten Kampar. Jurnal Kreativitas Pengabdian Kepada Masyarakat (PKM), 5(4), 1212-1219.

Yuliyani, E. A., Setyorini, R. H., Triani, E., Yudhanto, D., & Ajmala, I. E. (2020). Pemeriksaan telinga hidung tenggorok pada siswa SDN 16 Mataram. Jurnal PEPADU, 1(3), 349-353.

Yuliyani, E. A., Yudhanto, D., Setyorini, R. H., Triani, E., & Ajmala, I. E. (2019). Penyuluhan Tentang Kesehatan Telinga Pada Siswa Sekolah Dasar. Prosiding Pepadu, 1, 308-311.

Kasim, M., Prasetyo, A., Pangestu, R., Gustara, A., Fazriati, N., Nadila, P., ... & Pratiwi, N. (2023). PENYULUHAN KOTORAN TELINGA (SERUMEN PROP) PADA RUMAH SAKIT BINTANG AMIN. Jurnal Abdimas Kedokteran & Kesehatan (JAKK), 1(1).

Tan, S. T., Nathaniel, F., & Firmansyah, Y. (2023). Edukasi dan Pemeriksaan Fisik Kesehatan Telinga pada Pekerja Usia Produktif. Jurnal Pengabdian Masyarakat Nusantara, 5(2), 66-74.

Yolazenia, Yolazenia, Asmawati Asmawati, and Harianto Harianto. "Pemeriksaan dan Edukasi Gangguan Pendengaran Pada Anak Panti Asuhan." Berdikari: Jurnal Inovasi dan Penerapan Ipteks 11.1 (2023).

Alfiana, E., Wahyuni, T. D., Marcelina, S. T., & Bahari, K. PENGARUH PENDIDIKAN KESEHATAN MELALUI MEDIA VIDEO ANIMASI TERHADAP KEMAMPUAN TOILET TRAINING PADA ANAK USIA 3-4 TAHUN.

MARLIANY, Heni, et al. Pengaruh Edukasi Anemia Terhadap Peningkatan Pengetahuan Anemia Pada Remaja Putri di SMKN 1 Ciamis. In: Prosiding Seminar Nasional Unimus. 2024.

Novalita, N., Hamim, H., & Rizka, R. (2024). Pengaruh Health Education Menggunakan Video Animasi Terhadap Kebersihan Tangan dan Kuku pada Anak Sekolah Dasar di SDN Sekarputih 01 Bondowoso. Jurnal Ventilator, 2(4), 12-26.

Sari, Stella Eka. Pengaruh Edukasi Menggunakan Video Animasi Terhadap Perilaku Kesehatan Gigi Dan Mulut Pada Anak Usia Sekolah Dasar (Studi Di Sekolah Dasar Negeri 1 Tunggulrejo, Kabupaten Tuban). Diss. ITSKes Insan Cendekia Medika Jombang, 2021.