

## Analysis Effectiveness Printed Media and Visual Media on the Knowledge of Hygiene Workers About Basic Life Assistance in Cardiac Arrest Events at Provita Hospital, Jayapura City, Papua

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### ARTICLE INFO

*Keywords:* Print Media, Visual Media, Basic Life Support, Cardiac Arrest, Provita Hospital

*Received :* 27, May

*Revised :* 11, June

*Accepted:* 12, July

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### ABSTRACT

This study aims to analyze the effectiveness of print media and visual video media on janitors' knowledge of basic life support in cardiac arrest at Provita Hospital, Jayapura City. This type of research is quantitative using Pre-Experiment method with Pre-test and Post-test method. The number of samples was 20 respondents, each of whom was asked questions before and after the intervention using print media and visual videos to see the comparison of the effectiveness of changes in knowledge. The results of the study of the two methods on increasing knowledge before and after the intervention obtained a  $p$  value of  $0.001 < 0.05$  ( $\alpha$ ) with an average difference between the print media method of 85.30 and visual video of 77.20 with an IK value of 95%. The print media method is more effective in increasing knowledge about the concept of heart massage in cardiac arrest patients compared to the visual video media method. The conclusion in this study is that there is an effect of increasing knowledge through print media and visual videos about the basic concepts of heart massage in cardiac arrest patients at Provita Hospital Jayapura City, Papua Province.

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## **INTRODUCTION**

One of the targets in the 2030 Sustainable Development Goals (SDGs) is to reduce the incidence of non-communicable diseases (NCDs), where NCDs have received special attention and become one of the efforts in Goal 3, Ensure healthy lives and well. In 2015, NCDs caused 38 million deaths each year, 28 million of which were in developing and least developed countries and are expected to reach 55 million deaths by 2030 (Asriati and Adimuntja, 2022).

Heart and blood vessel diseases are the most common non-communicable diseases that cause death. Sudden cardiac arrest can happen anywhere and anytime. Sudden cardiac arrest is a case with emergency priority. Emergency is a clinical situation that requires immediate medical action to save lives and prevent disability (Permenkes RI No. 47 of 2018). Patients with cardiac arrest must receive immediate help with CPR (cardiopulmonary resuscitation) and AED (automated external defibrillator), both by lay people are highly emphasized (American Heart Association, 2020).

Cardiac arrest is a condition where the heart is unable to pump blood due to malfunction of the heart muscle. The ineffectiveness of blood circulation from the atria leads to decreased oxygenation of tissues and organs throughout the body, resulting in necrosis, which causes tissue death. Heart muscle malfunction can be caused by several conditions such as myocardial infarction, drug overdose, trauma, respiratory arrest, and abnormal heart rhythms such as ventricular tachycardia (VT) and ventricular fibrillation (VF) (Keogh, 2013). Another source explains that sudden cardiac arrest is an unexpected death caused by the heart that generally occurs within a short time (1 hour) from the onset of symptoms. This condition is without precedence from other disease conditions such as cancer, head injury and so on (Zipes & Wellens, 1998). Referring to the American Heart Association (2020), with regard to cardiac arrest cases, the causes differ between infants and children and cardiac arrest in adult individuals, and there is a growing body of pediatric-specific evidence supporting this recommendation.

Cardiac arrest is still a major problem, globally the incidence of cardiac arrest was around 37% in 2012 and increased in 2016 to 43%, Indonesia is in 13th position from other countries with the number of cases of 26.4% in 2016 (World Health Organization, 2016, 2020) and cardiovascular disease currently occupies the first position of the top 10 causes of death in the world (WHO, 2020). According to Putri (2022), the incidence of cardiac arrest is often found in public places and crowds. cardiac arrest occupies 50% of deaths in heart problems, and the problem is that the incidence of cardiac arrest is as much as 50% of the first symptoms that appear in patients who previously had no history of heart problems, so it can also be interpreted as a silent killer. In patients who have heart defects but previously had no complaints at all, HJM could be the first symptom to appear (HJM is an acronym in Indonesian language that means Sudden Cardiac Arrest).

Heart health is always an endless conversation, especially in certain age groups where cardiovascular problems begin to lurk. Heart health problems often have the appearance of fatal symptoms that often run very fast until

sudden death (Putri, 2022). Therefore, education about basic life support is very important. Education about basic life support with the concept of heart massage can be found through health education media. Along with the times, the health world is increasingly innovating and creative in providing health information about basic life support for cardiac arrest patients through print media and visual video media.

Departing from the description above, this study aims to analyze changes in the level of knowledge of janitors at Provita Hospital, Jayapura City about basic life support for cardiac arrest patients using print and visual video education media and see the effectiveness of education using a comparison of print and visual video media. This study is a quantitative study that uses the Pre-Experiment method with the Pre Test and Post Test method. The sample was 20 respondents of janitors at Provita Jayapura Hospital, each of whom was asked questions before and after the intervention using print media and visual videos to see the comparison of the effectiveness of changes in knowledge.

## **THEORETICAL REVIEW**

### ***Definition of Effectiveness***

The word effective comes from the English word effective which means successful or something that is done well. The popular scientific dictionary defines effectiveness as accuracy of use, results in use or supporting goals. The opinion of H. Emerson quoted by Soewarno Handyaningrat S. (1994: 16) which states that effectiveness is a measurement in the sense of achieving predetermined goals. The opinion expressed by Hidayat (1986) which explains that: "Effectiveness is a measure that states how far the target (quantity, quality and time) has been achieved. Where the greater the percentage of targets achieved, the higher the effectiveness".

Effectiveness is a level of success that has been achieved quickly and precisely in accordance with previously set goals (Ilham and Yunita, 2022: 8). According to Asiah (2016) effectiveness is something that shows the level of achievement of a goal. Furthermore, according to Erawati et al., (2017) effectiveness is a condition in which there is a match between the goals and objectives that have been set previously and the results achieved. Thus it can be concluded that effectiveness is the success that has been achieved in accordance with the expected goals effectively and efficiently.

### ***Getting to Know Print Media and Visual Media***

Media is a tool as an intermediary to convey messages (Ilham et al., 2022). Several forms of media, but below the discussion is focused on print media and visual media. Print media is media that is displayed in printed form on paper. This media was first discovered in 1455 by Johannes Gutenberg. At the beginning of its appearance, the media used were still leaves or clay. Until now, the development of print media is increasingly advanced, both in terms of media, forms, and technical and printing equipment. Print media is an intermediary or messenger from the source of the message to the recipient, in

the form of writing or images printed with ink on paper (Suyasa and Sedana, 2020).

Meanwhile, according to Eric Barnouw (in Suyasa and Sedana (2020), print media has the definition of all items that are printed and intended for the public. Print media are various forms of printed matter such as magazines, newspapers, or others that are made with the aim of disseminating information or communication messages to the wider community. Furthermore, visual media is media that relies on the sense of sight. Usually utilizing a projection device or projector as an intermediary. The message to be conveyed is poured into video form. There are two types of visual media, namely still visual media and motion visual media. Both can be combined or used one of them (Ardan, 2021). There is also what is called audio visual, as the name implies, Fauziah and Ninawati (2022) say Audio-Visual media is a combination of media that can be seen and heard, for example educational videos, instructional videos, and sound slide programs.

### ***Basic Life Support***

Basic life support is a basic aspect of lifesaving measures in relation to cardiac arrest. To support the success and quality of life of patients, important aspects include prevention of cardiac arrest, early cardiopulmonary resuscitation (CPR), activation of the emergency response system, effective advanced life support, and integrated post cardiac arrest management (Irfani, 2019). According to Erawati (2015) Basic life support is the basis for saving lives when cardiac arrest occurs.

Referring to Irfani, it is explained that basic life support is a basic aspect of rescue actions in relation to cardiac arrest events. To support the success and quality of life of patients, important aspects include prevention of cardiac arrest, early cardiopulmonary resuscitation (CPR)/cardiac pulmonary resuscitation (CPR), activation of the emergency response system, effective advanced life support, and integrated post cardiac arrest management. Furthermore, quoting Hermayudi & Ariani (2017), basic life support (BLS) is an action when a patient is found in a sudden state of not moving, unconscious, or not breathing, then check the patient's response. If the patient has no response, activate the emergency system and perform basic life support measures.

### ***Objectives of Basic Life Support (BLS)***

The primary goal of BLS is to perform emergency oxygenation to maintain pulmonary ventilation and distribute blood-oxygen to body tissues. BLS also strives to provide systemic circulation support as well as effective and optimal ventilation and oxygenation of the body until spontaneous systemic circulation is regained or help arrives with more complete equipment to perform advanced life support. In brief, the objectives of BLS include: 1) Reduce morbidity and mortality rates by minimizing suffering, 2) Prevent further illness or injury, and 3) Promote recovery. Actions in BLS include: 1) Recognizing cardiac arrest or respiratory arrest, 2) calling for help, 3) Opening and freeing the airway, 4) Giving breathing support, and 5) Maintaining circulation (Kusumaningrum, 2021).

### ***Incidence of Cardiac Arrest***

Referring to Yunita (2024), cardiac arrest is a condition when the heart stops beating. A common cause of cardiac arrest is abnormal heart rhythm, which occurs when the heart's electrical system is not working properly. Cardiac arrest is different from a heart attack. People who experience cardiac arrest usually faint and do not always end up dying. Many cases of cardiac arrest can be saved by cardiopulmonary resuscitation (CPR). This is also coupled with medical treatment according to the cause.

Cardiac arrest is an emergency case that must get proper and immediate treatment from trained medical personnel or the general public (Wiliastuti et al., 2018). Brain death and permanent death occur within 8 to 10 minutes after a person experiences cardiac arrest (Pusponegoro, 2010). According to Jameson et al., (2005), cardiac arrest, also known as cardiopulmonary arrest or circulatory arrest, is the cessation of normal circulation of blood due to the failure of the heart to contract effectively. Cardiac arrest is different from (but can be caused by) acute myocardial infarction or heart attack, where there is a blockage of blood flow to the heart (Mallinson, dalam *wikipedia.org*, 2021)

Cardiac arrest is evidenced by a pulse that is not palpable. However, due to inadequate cerebral circulation, the patient may lose consciousness and may experience respiratory arrest. The main diagnostic criteria for diagnosing cardiac arrest (as opposed to respiratory arrest which has similar signs and symptoms) is lack of circulation which can be evidenced in several ways (*wikipedia.org*, 2021)

### **METHODOLOGY**

To achieve the research objectives, it is important to determine the method that will be used (Tokang et al., 2023; Renyaan, 2023; Wambrauw; 2023). This method is a tool to answer the research questions to be carried out (Patmasari, 2022; Ohoiwutun and Ilham; 2023). Therefore, this study uses a quantitative method with the Paired T-Test test method where researchers want to see the difference or comparison of the average knowledge of the sample before and after being given information using visual media in the form of videos and prints about basic life support. This study also wants to see the effectiveness of education using print media or visual video media on basic life support heart massage for janitors at Provita Jayapura Hospital.

The informants in this study were all cleaning staff working at Provita Jayapura Hospital, Papua, totaling 20 people, consisting of 10 male respondents and 10 female respondents. In addition, literature searches are also carried out to obtain data relevant to the research topic (Tebay and Ilham, 2023 ; Sapioper et al., 2022), where data is obtained from articles such as journals, books, online media, and so on (Ilham et al. 2021). Data Collection, the research procedure includes research preparation such as preparing a letter of permission to

conduct research at Provita Jayapura City Hospital, experiments using print media and visual videos with pretest and posttest methods. Before conducting in-depth experiments, informants will sign a letter of consent to participate in this study. The analysis used in this study uses the Paired T-Test and Independent T-Test analysis techniques by comparing the results of the pre-test and post-test, as well as seeing the effectiveness of print media and video media in educating janitors.

**RESULTS**

*Descriptive Analysis*

**Table 1. Descriptive Analysis of Pre-test and Post-test**

Statistics	Statistical Value			
	Print Media		Visual Media	
	Pre-test	Post-test	Pre-test	Post-test
Number of Officers	20			
Maximum Score	76	92	81	89
Minimum Score	56	80	55	67
Mean	67.80	85.30	67.35	77.20
Standard Deviation	6.005	3.570	7.088	5.386

Based on Table 1 shows the results of knowledge of janitors about the concept of heart massage at Provita Hospital Jayapura City using print and visual media is the maximum value of pre-test print media 76, post-test print media 92, pre-test visual media 81 and post-test visual media 89. The minimum value of the print media pre-test is 56, the print media post-test is 80, the visual media pre-test is 55 and the visual media post-test is 67. The mean or average value of this study is print media pre-test 67.80, print media post-test 85.30, visual media pre-test 67.35 and visual media post-test 77.20. The standard deviation value of the print media pre-test is 6.005, the print media post-test is 3.570, the visual media pre-test is 7.088 and the visual media post-test is 5.386. Based on the picture above, it can be seen that there is a very significant effect before and after being given different treatments to respondents.

*Data Normality Test*

**Table 2. Normality Test Analysis**

Data	Kolmogrov Smirnov	Sig.	Shapiro Wilk	Sig.	Description
Print Media Pre-test	.147	.200	.931	.160	Normal
Print Media Post-test	.122	.200	.954	.424	Normal
Visual Media Pre-test	.180	.088	.928	.140	Normal
Visual Media Post-tes	.119	.200	.967	.694	Normal

In table 2. it can be seen that the significance value obtained in the print media pre-test is 0.200 and 0.160, print media post-test is 0.200 and 0.424, visual media pre-test is 0.088 and 0.140, visual media post-test is 0.200 and 0.694. Because the significance value is  $> 0.05$ , then the data can be concluded that normal distribution.

*Paired Sample T-Test*

**Table 3. Paired T-Test Analysis**

	Variable		T	df	Sig.	Description
<b>Pair 1</b>	Print	Media	-14.130	19	< 0,001	There is a Change
	Pre-test					
	Print	Media				
	Post-test					
<b>Pair 2</b>	Visual	Media	-7.426	19	< 0,001	There is a Change
	Pre-test					
	Visual	Media				
	Post-test					

Table 3. shows that there is a change in each of the variables studied, namely a significance value of  $0.001 < 0.05$  using print media and a significance value of  $0.001 < 0.05$  using visual media, which is in accordance with the requirements of the Paired Sample T-Test test, namely  $H_0$  is rejected from each variable and  $H_1$  and  $H_2$  are accepted by each variable, meaning that there is an influence on the results of knowledge of the concept of heart massage using teaching aids in the form of print media and visual media on cleaning staff at Provita Jayapura City Hospital. Each variable is given an influence by using print media and control in the form of visual media. It can be seen from the picture above that knowledge undergoes significant changes before and after being given influence.

*Independent T-Test*

**Table 4. Independent T-Test Analysis**

Variable	n	Mean	SD	T	(T-Test)	Sig.
<b>Post-test Print Media</b>	20	85.30	3.570	5,606		0,001
<b>Post-test visual media</b>	20	77.20	5.386			

Based on the table above, it can be interpreted that there are differences in the knowledge of janitors at Provita Hospital on the concept of heart massage using print and visual media. This can be seen from the significance value of  $0.001 < 0.05$ . In table 4. also presented data which states that there is a difference in the mean value between the post test of print media 85.30 and post-test visual media 77.20 which can be concluded that print media is more effective in

influencing the knowledge of the concept of heart massage for janitors at Provita Jayapura City Hospital.

## **DISCUSSION**

### ***Respondents' Knowledge Before and After Being Given Knowledge About the Concept of Heart Massage Through Print Media Methods***

Based on the results of the study, the average distribution of the knowledge value of janitors at Provita Hospital can be seen that before the intervention was carried out, it was 67.80 about the knowledge of the concept of heart massage in cardiac arrest patients and after being given intervention through print media about the concept of heart massage in cardiac arrest patients, the average value using print media intervention increased by 85.30 to 20 janitors with the same form and type of question or questionnaire. With a  $p$  value of  $0.001 < 0.05$ , the test results mean that there is an effect of changes in knowledge in janitors at Provita Hospital about the concept of heart massage using print media. The results of this study are in line with previous research (ÖCAL 2021) which states that print media has an influence in increasing knowledge.

Research by Kasman et al (2017) states that health promotion using print media or leaflets is effective in increasing the knowledge of poor people about the dangers of smoking, however. The existence of information with printed media can increase the respondent's desire to pay attention to any information presented carefully and not rush to digest it. The information in the print media is clarified with text and images so that respondents can read and understand the contents of the message in the print media image, it can increase the knowledge of respondents, the increase in knowledge of these respondents where respondents can read and see the images presented so as to accelerate the memory of respondents about knowledge of the concept of heart massage in cardiac arrest patients.

### ***Respondents' Knowledge Before and After Being Given Knowledge About the Concept of Heart Massage Through Visual Video Media.***

Based on the results of the study obtained the average distribution of knowledge of janitors on the concept of heart massage in the event of cardiac arrest patients at Provita Hospital Jayapura City, it can be seen that before being given intervention through visual video media is 67.35 against 20 respondents but after being given intervention in the form of teaching aids in the form of visual videos, the post-test value has increased the average value of 77.20 with questions before and after which the type and content are still the same. The significant value in the study of assessing the knowledge of janitors at Provita Hospital on the concept of heart massage for cardiac arrest patients using visual video media shows a  $p$  value of  $0.001 > 0.05$  which can be interpreted that there is a significant effect on changes in the knowledge of janitors at Provita Hospital about the concept of heart massage for cardiac arrest patients using visual video media.



The results of this study are in line with research (Bidori and Puspitowati, 2021) which states that video media has an influence on the knowledge of Anemia of female students at SMAN [High School] Ngaglik, because the material is packaged in videos in the form of moving image effects with interesting storylines and sound so that it provides a more real picture for the audience who sees it. According to (Igianny et al. 2016) videos are easier to understand and can be shown repeatedly so that it is effective to change the views of the target to be intervened. This theory is proven when researchers conduct research tests on assessing janitors' knowledge of the concept of heart massage using visual video media, namely the difference after intervention using this method. The factors that can affect knowledge by using video media include the images displayed must be clearly visible, the volume of the sound must be heard well and the use of language that is conveyed is easy to observe by the person observing the video. observed by the person observing.

*Differences In the Effectiveness of Print and Visual Video Methods on Janitors' Knowledge of The Concept of Heart Massage in Cardiac Arrest Patients at Provita Hospital Jayapura City*

There is a difference in the knowledge of janitors about the concept of heart massage in cardiac arrest patients at Provita Jayapura Hospital before and after being given interventions through print media and visual video media. Based on the results of the study, the average result after intervention using print media is 85.30 and the average value after intervention using visual video media is 77.20 with a difference of 8.1 points. To see the effectiveness of the two interventions, a statistical test can be carried out with an independent t-test, to analyze the difference between print media and visual videos on the knowledge of janitors about the concept of heart massage in cardiac arrest patients. Where for the  $\rho$  value obtained a result of  $0.001 < 0.05$  ( $\alpha$ ).

From these results it can be concluded statistically that there is a significant difference in the average difference in scores between the print media and visual video media groups. From these data, it can be concluded that print media intervention is more effective than using visual video media, but this research is not in line with research (Spooner et al. 2012) which states that the use of instructional DVDs to teach basic life skills is more effective than print media. This makes a comparison between two media, namely print and visual video in providing health knowledge about basic life support heart massage for cardiac arrest patients, this study states that print media is more effective in increasing knowledge because cleaners have more time and do not rush to read. have more time and are not in a hurry to read in digesting and reading information through print media about basic life support for cardiac arrest patients.

According to research (ÖCAL 2021) states the same thing that printed media in the form of leaflets is more effective than using visual video media on knowledge of Covid-19 prevention using the WhatsApp group intermediary, which based on the results of the independent t-test test obtained a value of  $\rho$  value =  $0.031 < 0.05$  then  $\rho < (\alpha)$  it can be concluded that  $H_a$  is accepted so that there is a difference in the effectiveness of video media and leaflets or printed

media on knowledge of handling Covid-19. Knowledge can also be influenced by the speed at which a person receives the information obtained, so that the more a person obtains information, the better his knowledge, and vice versa. Knowledge is the result of knowing and this occurs after people perceive certain objects. Sensing occurs through the five human senses, namely the senses of sight, hearing, smell, taste and touch. Most human knowledge is obtained through the eyes and ears. Knowledge or cognitive is dominant which is very important for a person's actions.

## **CONCLUSIONS AND RECOMMENDATIONS**

Based on the results of research and discussion in this study on the effectiveness of knowledge results through print media and visual videos on janitors at Provita Jayapura Hospital about the concept of heart massage in cardiac arrest patients, the following conclusions can be drawn:

1) There is an effect of print media on the knowledge of janitors at Provita Jayapura City Hospital about basic life support with the concept of cardiac massage in cardiac arrest patients before and after the intervention, 2) There is an effect of visual video media on the knowledge of janitors at Provita Jayapura City Hospital about basic life support with the concept of heart massage in cardiac arrest patients before and after intervention, 3) In this study it can be concluded that print media is more effective in influencing the knowledge of janitors about the concept of heart massage in cardiac arrest patients at Provita Jayapura City Hospital compared to visual video media, it can be seen through the average value of print media 85.30 and video media value 77.20 with a point difference of 8.1.

Based on this, it is recommended that in the future more print media be used because it can be more effective in influencing the knowledge of janitors about the concept of heart massage in cardiac arrest patients at Provita Hospital Jayapura City compared to using visual video media.

## **FURTHER STUDY**

This research was only conducted at Provita Hospital in Jayapura City. Therefore, similar research is expected to be conducted in the future in other hospitals in Jayapura City, Papua Province.

## **ACKNOWLEDGMENT**

The author would like to thank all parties who have contributed to the research process. Especially to the supervisors and examiners who have provided valuable suggestions and inputs, so that the results of this research can be completed until publication.

## REFERENCES

- American Heart Association (2020). *Kejadian Penting Pedoman Cpr dan Ecc*.  
eccguidelines.heart.org
- Ardan, Farrel. (2021). Pengertian, Jenis-Jenis, serta Fungsi Media.  
<https://mediaindonesia.com/humaniora/451206/pengertian-jenis-jenis-serta-fungsi-media> (Accessed on July 4, 2024).
- Asiah, S. (2016). Efektivitas Kinerja Guru. *TADBIR: Jurnal Manajemen Pendidikan Islam*, 4(2), 1-11.
- Asriati., & Adimuntja, N. P. (2022). Determinants of Increased Risk Coronary Heart Disease in Posbindu PTM Participants in Jayapura. *Miracle Journal of Public Health*, 5(1), 52-59.
- Erawati, S. (2015). *Tingkat Pengetahuan Masyarakat Tentang Bantuan Hidup Dasar (BHD) Di Kota Administrasi Jakarta Selatan* (Bachelor's thesis, UIN Syarif Hidayatullah Jakarta: Fakultas Kedokteran dan Ilmu Kesehatan, 2015).
- Erawati, I., Darwis, M., & Nasrullah, M. (2017). Efektivitas Kinerja Pegawai pada Kantor Kecamatan Pallangga Kabupaten Gowa. *Jurnal Office*, 3(1), 13.
- Fauziah, M. P., & Ninawati, M. (2022). Pengembangan media audio visual (video) animasi berbasis Doratoon materi hak dan kewajiban penggunaan sumber energi mata pelajaran PPKn di sekolah dasar. *Jurnal Basicedu*, 6(4), 6505-6513.
- Handyaningrat, S. (1994). *Pengantar Studi Ilmu Administrasi dan Manajemen*. Jakarta: CV. Haji Masagung
- Hermayudi & Ariani, A. P. (2017). *Panduan Rematik (Reumatologi)*. Yogyakarta: Nuha Medika.
- Hidayat. (1986). *Teori Efektifitas Dalam Kinerja Karyawan*. Gajah Mada University Press.
- Igiany, P. D., Sudargo, T., & Widyatama, R. (2016). Efektivitas penggunaan video dan buku bergambar dalam meningkatkan pengetahuan, sikap, dan keterampilan ibu mencuci tangan memakai sabun. *Berita Kedokteran Masyarakat*, 32(3), 89-94.

- Ilham, M., Mz, I. U., & Renyaan, D. (2022). Era Digital: Influencer Dalam Sistem Politik Indonesia. *Jurnal Ekologi Birokrasi*, 10(1), 69-80.
- Ilham, I., Frank, S. K. A., Flassy, M., Muttaqin, M. Z., Idris, U., & Yunita, D. I. (2021). Hjiir Mentuk: Potensi Kuliner Lokal Olahan Masyarakat Kampung Tobati Sebagai Daya Tarik Wisata Di Kota Jayapura. *Jurnal Pariwisata Pesona*, 6(2), 95-104.
- Irfani, Q. I. (2019). Bantuan hidup dasar. *Cermin Dunia Kedokteran*, 46(6), 458-461.
- Jameson, J. N. St C.; Dennis L. Kasper; Harrison, Tinsley Randolph; Braunwald, Eugene; Fauci, Anthony S.; Hauser, Stephen L; Longo, Dan L. (2005). *Harrison's principles of internal medicine*. New York: McGraw-Hill Medical Publishing Division. ISBN 0-07-140235-7.
- Kasman, K., Noorhidayah, N., & Persada, K. B. (2017). Studi Eksperimen Penggunaan Media Leaflet Dan Video Bahaya Merokok Pada Remaja. *Jurnal Publikasi Kesehatan Masyarakat Indonesia*, 4(2).
- Keogh B (2013) Review into the quality of care and treatment provided by 14 hospital trusts in England: overview report. [www.nhs.uk/NHSEngland/bruce-keogh review/Documents/outcomes/keogh-review-final-report.pdf](http://www.nhs.uk/NHSEngland/bruce-keogh-review/Documents/outcomes/keogh-review-final-report.pdf) (Accessed on July 5, 2024).
- Kusumaningrum, N. S. D. (2021). Karya HKI: Modul Pembelajaran BLS (Basic Life Supports). *Departemen Ilmu Keperawatan Fakultas Kedokteran Universitas Diponegoro*
- Öcal, Sema. (2021). Indikator Terkait Kesehatan Pada Lansia Di Rumah, Fokus Pada Persepsi Kesehatan Subjektif. *Analisis Struktur Kovarians*, 3(2): 6.
- Ohoiwutun, Y., & Ilham, I. (2023). Archives Management System in the General Bureau and Papua Province Governor's Office Protocol. *Formosa Journal of Applied Sciences*, 2(11), 2087-2102.
- Patmasari, E. (2022). Multiplier Effect of Dam Development in Indonesia (A Study on Dam Development during the Leadership of President Joko Widodo). *Research and Analysis Journal*, 5(9), 17-23.

- Pemerintah Indonesia. (2018). Peraturan Menteri Kesehatan Republik Indonesia Nomor 47 Tahun 2018 Tentang Pelayanan Kegawatdaruratan. *Kementerian Kesehatan Republik Indonesia*.
- Bidori, F., & Puspitowati, I. (2021). Pengaruh kebutuhan kognisi, preferensi risiko dan jenis kelamin terhadap niat berwirausaha mahasiswa. *Jurnal Manajerial Dan Kewirausahaan*, 3(3), 699-710.
- Pusponegoro A, et al. (2010). *Buku Panduan Basic Trauma Life Support*. Ed. Ke3. Penerbit Yayasan Ambulans Gawat Darurat 18.Jakarta.
- Putri, Rindayu Yusticia Indira. (2022). Henti Jantung Mendadak. [https://yankes.kemkes.go.id/view\\_artikel/1911/henti-jantung-mendadak](https://yankes.kemkes.go.id/view_artikel/1911/henti-jantung-mendadak) (Accessed on July 5, 2024).
- Sapioper, H. C., Ilham, I., Kadir, A., Yumame, J., Sriyono, S., Muttaqin, M. Z., ... & Patmasari, E. (2022). Emas Merah Paniai: Kebijakan Pengembangan Ekonomi Rakyat Berbasis Potensi Lokal. *Publikauma: Jurnal Administrasi Publik Universitas Medan Area*, 10(2), 116-126.
- Spooner, F., Knight, V. F., Browder, D. M., & Smith, B. R. (2012). Evidence-based practice for teaching academics to students with severe developmental disabilities. *Remedial and Special Education*, 33(6), 374-387.
- Suyasa, I. M., & Sedana, I. N. (2020). Mempertahankan Eksistensi Media Cetak Di Tengah Gempuran Media Online. *Jurnal Komunikasi Dan Budaya*, 1(1), 56-64.
- Tebay, V., & Ilham, I. (2023). Literature study: the community perception of rowing venue development in women's forest ecosystem, Youtefa Bay, Jayapura City, Papua. *Depik*, 12(1), 76-86.
- Tokang, M., & Yumame, J. (2023). Seeing the Atakkae Traditional House: Education, Tourism, Economic and Government Policy Perspectives in Its Development. *Journal of Educational Analytics*, 2(2), 141-156.
- Wambrauw, O. O. O. (2023). Tourism Digitalization Through the Implementation of National Tourism Information System "Sisparnas" in Papua Province. *East Asian Journal Of Multidisciplinary Research*, 2(7), 2695-2708.

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Wiliastuti, U. N., Anna, A., & Mirwanti, R. (2018). Pengetahuan tim reaksi cepat tentang bantuan hidup dasar. *Jurnal Keperawatan Komprehensif (Comprehensive Nursing Journal)*, 4(2), 77-85.

Wikipedia.org. (2021). Henti Jantung. [https://id.wikipedia.org/wiki/Henti\\_jantung](https://id.wikipedia.org/wiki/Henti_jantung).

Yunita, D. I. (2022). *Efektivitas Kebijakan "Belajar Daring" Masa Pandemi Covid-19 Di Papua*. wawasan Ilmu.

Yunita, Theresia Rina. (2024). Pertolongan Pertama pada Korban Henti Jantung Mendadak. <https://www.klikdokter.com/info-sehat/jantung/pertolongan-pertama-pada-korban-henti-jantung-mendadak> (Accessed on July 5, 2024).

Zipes, D. P., & Wellens, H. J. (1998). Sudden cardiac death. *Circulation*, 98(21), 2334-2351.