

# The effect of training with educational video media based on local wisdom on mothers' level of knowledge and attitudes in recognizing the signs and dangers of ISPA in toddlers

Lamria Situmeang<sup>1</sup>, Sulistiyani<sup>2</sup>, Yudi Prayitno<sup>3</sup>

<sup>1,2,3</sup>Bachelor of Applied Nursing Study Program, Department of Nursing, Jayapura Ministry of Health Health Polytechnic, Indonesia

## ARTICLE INFO

### Article history:

Received Sep 16, 2023

Revised Sep 29, 2023

Accepted Oct 12, 2023

### Keywords:

Attitude  
Danger of ISPA  
Knowledge  
Training

## ABSTRACT

This research is motivated by the importance of increasing the knowledge and attitudes of mothers of toddlers in recognizing the signs and dangers of ISPA. The aim of this research is to determine the effect of ISPA training using the Wisdom educational video media in the East Sentani regional language on the knowledge and attitudes of mothers of toddlers in recognizing the signs and dangers of ISPA. This research uses a Quasi experimental design with a pretest-posttest control group design approach. The research subjects were 82 mothers of toddlers at the Harapan Sentani Timur Health Center, Jayapura Regency, who were divided into 2 (two) groups of 41 people each, namely the control group and the intervention group. Data were analyzed statistically using the Mann-Whitney U test. The results of this study showed that there was a difference in the median difference in the posttest results of mothers of toddlers' knowledge between the intervention group and the control group. There is a difference in the median difference in the posttest results of mothers of toddlers' attitudes between the intervention group and the control group. The results of this research indicate that ISPA training with audio-visual educational wisdom videos in East Sentani is much better understood because it is the language of the local area where the population of East Sentani, the majority of whom use East Sentani in their daily lives with lecture, visual and discussion methods, has a significant influence on respondents' knowledge and attitudes regarding ISPA.

This is an open access article under the [CC BY-NC](https://creativecommons.org/licenses/by-nc/4.0/) license.



## Corresponding Author:

Lamria Situmeang,  
Applied Nursing Undergraduate Study Program,  
Ministry of Health Jayapura Health Polytechnic,  
Padang Bulan, RW.2, Hedam, Kec. Heram, Jayapura City, Papua 99351, Indonesia  
Email: situmeanglamria1@gmail.com

## INTRODUCTION

Acute Respiratory Tract Infection is an infection that lasts less than 14 days which can attack the respiratory tract such as the throat, nose and lungs. Acute Respiratory Tract Infection attacks the respiratory system in the upper and lower tract with stimulants or sequentially (Sabila et al, 2021).

Acute Respiratory Infection (ARI) is a disease that occurs very often and this ARI disease can cause the most deaths in children under five (Parwanti, 2021).

Training will be successful if it is in accordance with the principles, namely participation, repetition, relevance, feedback, transparency (Dewi et al, 2023). Symptoms that usually appear in acute respiratory infections are fever accompanied by one or more other symptoms such as a sore throat or painful swallowing, runny nose, dry cough or phlegm (Gusmaliza, Masdalipa & Yadi, 2022). Mother's knowledge about ISPA is one of the most important things a mother has. Therefore, to find out the mother's level of understanding about ISPA in toddlers, it is necessary to know the mother's knowledge and attitude towards everything related to ISPA (Daeli et al, 2021). Efforts to increase mothers' knowledge and skills require a lot of effort, including providing training on how to prevent and treat ISPA (Tisnawati & Muchtar, 2020). It is hoped that by providing training on ISPA, it can explain that ISPA is a serious disease that can be life-threatening, mothers will know about ISPA, identify if a toddler is attacked by ISPA and mothers will quickly take their child to the nearest hospital or health center (Cahyaningsih, Hamzah & Suheti, 2021).

Training is a source of information, where with training mothers can obtain information about ISPA disease, which in turn means mothers are able to take action to prevent ISPA disease (Widianti, 2020). Training will be successful if it is in accordance with the principles, namely participation, repetition, relevance, feedback, transparency (Wahyuningsih & Astarani, 2018). Training carried out based on these principles can provide maximum results, namely increasing the knowledge of the training participants. The best training method is lectures and questions and answers using transparent booklets (Notoatmodjo, 2007; Yuliana, Paradise, & Kusri, 2021).

In connection with the high incidence and death rate of toddlers due to ISPA in Jayapura City and mothers of toddlers affected by ISPA at the Harapan Sentani Community Health Center, Jayapuradi Regency because they have never received training about ISPA so they do not have the knowledge and are unable to act in recognizing the Danger Signs of ISPA in their toddlers who are affected. ISPA.

Research on mothers' knowledge and attitudes in recognizing the dangers of ISPA in toddlers has been carried out by several previous studies, including research by Risal Surudin and Atoy (2016) which revealed that in general 60% of mothers had poor attitudes and knowledge about the dangers of ISPA. Furthermore, Suwito research (2012) explains that the implementation of Integrated Management of Sick Toddlers (MTBS) is related to Mothers' Knowledge and Attitudes towards the Prevention of ISPA in Toddlers. Apart from that, research by Fahrizal and Zulaikha (2018) shows that there is a relationship between maternal knowledge about vitamin A and the incidence of ARI.

Based on the background of the problem and previous research, researchers are interested in studying the influence of training using educational video media based on local wisdom on the level of knowledge and attitudes of mothers in recognizing the signs and dangers of ISPA in toddlers in the Noklokla Village Community Health Center working area. The novelty of this research compared to previous studies is that this research includes training variables using educational video media based on local wisdom, while previous studies are about general descriptions of attitudes and knowledge, the implementation of Integrated Management of Sick Toddlers (MTBS) and vitamin A on mothers' attitudes and knowledge.

The aim of this research is to determine the effect of providing training on ISPA on mothers' knowledge and attitudes in preventing and caring for toddlers affected by ISPA at the Harapan Sentani Community Health Center, Jayapura Regency. It is hoped that the findings of this research will be able to provide understanding and insight for stakeholders regarding the importance of training using educational video media based on local wisdom to improve mothers' attitudes and knowledge in recognizing the dangers of ISPA in toddlers.

## RESEARCH METHOD

This research uses a quasi experimental design with a pretest-posttest control group design approach (Arikunto, 2012). The instrument used in the research was a questionnaire. The demographic data questionnaire contains questions regarding age, education, status, employment, income and number of children. A questionnaire on the level of knowledge and attitudes of respondents was given to measure the level of knowledge and attitudes of respondents regarding ISPA (Riyanto and Budiman, 2013). The questions for each questionnaire consist of 20 questions with 4 answer choices with favorable and unfavorable types (Sugiyono, 2010). The higher the score achieved, the better the respondent's knowledge and attitudes.

The research subjects were 82 mothers of toddlers at the Harapan Sentani Community Health Center, Jayapura Regency, who were divided into 2 (two) groups of 41 people each, namely the control group and the intervention group. The intervention group was a group of mothers of toddlers who took part in ISPA training by providing training using educational video media in the East Sentani regional language by watching videos, doing demonstrations and leaflets, while the control group was a group of mothers of toddlers who took part in training in the form of lectures and giving leaflets after carrying out the ISPA post test. . The research instrument was ISPA training using educational Wisdom video media in the East Sentani area which was carried out using visual and discussion methods. The lecture is a presentation of ISPA knowledge and how to behave in recognizing the Danger Signs of ISPA in toddlers suffering from ISPA. This lecture is supported by visual demonstration tools, namely audio visual VCD/DVD and visual media such as leaflets and booklets. The discussion is a question and answer session both between the lecturer and the participants and between fellow ISPA training participants in the form of an FGD (Focus Group Discussion).

The validity test of the knowledge and attitude instrument shows that all items (20 statements) for each knowledge and attitude variable are valid, shown by all items having a calculated  $r$  value  $>$   $r$  table of 0.361 ( $n = 30$ ,  $\alpha = 5\%$ ). The reliability test of mother's knowledge obtained an alpha value of 0.909 and an alpha value of mother's attitude of 0.915. The alpha value is  $>$  0.6 so it can be concluded that the item is reliable. The overall survey data results were analyzed statistically using the Mann-Whitney U test.

## RESULTS AND DISCUSSIONS

In Table 1 it is shown that all samples of 82 mothers of toddlers have an average age of 28.76 years with a standard deviation of 5.48 years, a minimum age of 20 years and a maximum age of 43 years, the majority are  $<$  26 years old (25 people or 41.5%) , the majority have high school/vocational education (49 people or 59.8%), the majority work as housewives (IRT) (29 people or 35.4%), the majority are married (80 people or 98.8%), the majority have  $>$  2 children (57 people or 69.5%), and the majority earn  $<$  Rp. 2.45 million/month (54 people or 65.9%).

**Table 1.** Frequency distribution of respondent characteristics (n=82)

Characteristics Respondent	Group Control (n=41)		Group Intervention (n=41)		Total (n=82)	
	F	%	F	%	F	%
Age	M=28.45 Min=20	SD=5.32 Max=41	M=29.21 Min=20	SD=5.67 Max=43	M=28.76 Min=20	SD=5.48 Max=43
< 26 years old	17	20.7	8	9.8	25	41.5
26-35 years old	13	15.9	20	24.4	33	40.2
36-45 years old	11	13.4	13	15.9	24	29.3
Total	41	50.0	41	50.0	82	100.0
Education						
Elementary/Middle School	11	13.4	9	11.0	20	24.4
SMA/SMK	25	30.5	24	29.3	49	59.8

	Diploma/S1/S2	5	6.1	8	9.8	13	15.9
	Total	41	50.0	41	50.0	82	100.0
Work	IRT	4	4.9	25	30.5	29	35.4
	Civil servants	18	22.0	2	2.4	20	24.4
	Private employees	18	22.0	4	4.9	22	26.8
	Self-employed	1	1.2	10	12.2	11	13.4
	Total	41	50.0	41	50.0	82	100.0
Status	Not married	0	0.0	1	1.2	1	1.2
	Marry	41	50.0	40	48.8	80	98.8
	Total	41	50.0	41	50.0	82	100.0
Number of children	> 2 children	32	39.0	25	30.5	57	69.5
	1-2 children	9	11.0	16	19.5	25	30.5
	Total	41	50.0	41	50.0	82	100.0
Income	< IDR 2.45 million/month	24	29.3	30	36.6	54	65.9
	IDR 2.45 - 2.55 million/month	10	12.2	7	8.5	17	20.7
	IDR 2.55 - 2.60 million/month	2	2.4	2	2.4	4	4.9
	> IDR 2.60 million/month	5	6.1	2	2.4	7	8.5
	Total	41	50.0	41	50.0	82	100.0

(Source: Processed Primary Data)

The results of this description are in accordance with the results of research by Erlinda (2015), which states that mothers of toddlers are generally young housewives aged < 26 years, have a primary and secondary education (SMA/SMK), are married and earn less than Rp. 2.5 million/month. Which is somewhat different in the number of children, if in research Erlinda (2015) mostly mothers of toddlers have 1-2 children, but in this study the majority had more than 2 children. If in the research journal Erlinda (2015) only discussed ISPA knowledge, in this study it was not only knowledge, but also the attitudes of mothers of toddlers and included ISPA training as a treatment instrument.

The difference in the characteristics of the control group and the intervention group as listed in Table 1 above is in age, where the majority of the control group is < 26 years old (17 people or 20.7%) and the majority work as civil servants/private employees (36 people or 44.0 %); however, for the intervention group, the majority were aged 26-35 years (20 people or 24.4%) and the majority worked as housewives (25 people or 30.5%). The selection of the intervention group is closely related to the employment status of the respondents, namely the majority group of housewives who are in fact easily present in ISPA training.

This result is in accordance with opinion Kadrianti (2019) The respondents aged over 41 years said that it was easy for housewives to participate in the training because they were active at home in ISPA training, apart from that they had a lot of free time and it was also not difficult to attend the training because they were not busy outside the home.

The difference in the median difference in *pretest results* and *posttest results* in maternal knowledge in recognizing Danger Signs of ISPA, before and after training, in the control group and intervention group, was analyzed using the *Mann-Whitney U test* with the following results:

**Table 2.** Differences in median differences in mothers' knowledge about recognizing danger signs of ISPA in the control and intervention groups

	Control Group (n=41)	Intervention Group (n=41)	Difference Median	<i>p-value</i>
Test results	Median ± SD	Median ± SD		
<i>Pretest Results</i>	39.88 ± 0.49	41.46 ± 0.49	1.59	0.021
<i>Posttest Results</i>	39.76 ± 0.49	85.37 ± 0.35	45.61	

(Source: Processed Primary Data)

In Table 2 above, it is shown that the median difference between the *pretest results* and the *posttest results* is the knowledge of mothers of toddlers in recognizing the Danger Signs of ISPA for the control group (n=41) it was 1.59 and for the intervention group (n=41) it was 45.61. Thus, there is a difference in the median difference in *pretest results* and *posttest results* in the knowledge of mothers of toddlers regarding prevention and treatment of ARI between the control group (n=41) and the intervention group (n=41), namely 45.61 and a significant *p-value* =  $0.021 \leq 5\%$ , where the median *posttest result* for the intervention group was greater than the control group. These results mean that the ISPA training using the Wisdom educational video media given to the intervention group had a positive effect on the knowledge of mothers of toddlers in recognizing Danger Signs of ISPA. There is also research being done Dewi et al (2015) with the title of research on the use of ISPA training as a learning video medium for mothers of toddlers in recognizing the Danger Signs of ISPA in their children who are affected by ISPA. The results of this research are also in line with the results of research conducted Susanti et al (2022) stated that ISPA training increases the knowledge of mothers of toddlers so that they can develop a correct understanding of the Danger Signs of ISPA. The results of this research are also in line with opinions Hanik & Wiharti (2022) and Megasari Ardhianti and Juliarti (2020) which states the need for ISPA training for housewives who have toddlers at home, especially those with lower middle school education.

The difference in the median difference in *pretest results* and *posttest results* in mothers' attitudes in recognizing the Danger Signs of ISPA, before and after training, in the control group and intervention group, was analyzed using the *Mann-Whitney U test* with the following results:

**Table 3.** Differences in median differences in mother's attitudes in recognizing danger signs of ISPA in the control and intervention groups

	Control Group (n=41)	Intervention Group (n=41)	Difference Median	<i>p-value</i>
Test results	Median ± SD	Median ± SD		
<i>Pretest Results</i>	54.24 ± 0.78	56.55 ± 0.75	2.32	0.038
<i>Posttest Results</i>	54.94 ± 0.82	84.57 ± 0.53	29.63	

(Source: Processed primary data)

In Table 3 above, it is shown that the median difference between the *pretest results* and the *posttest results* of the attitudes of mothers of toddlers for the control group (n=41) was 2.32 and for the intervention group (n=41) was 29.63. Thus, there is a difference in the median difference in the *pretest results* and *posttest results* in the attitudes of mothers of toddlers in recognizing the Danger Signs of ISPA between the control group (n=41) and the intervention group (n=41), namely 29.63 and a significant *p-value* =  $0.038 \leq 5\%$ , where the median *posttest result* for the intervention group was greater than the control group. These results mean that the ISPA training given to the intervention group had a positive effect on the attitudes of mothers of toddlers in recognizing the Danger Signs of ISPA.

The results of this research are in accordance with the results of research conducted WHO (2007) researched ISPA training as a tool to sharpen the practical attitudes of mothers of toddlers in caring for their children affected by ISPA. The results of this study are also in accordance with the research results WHO (2007) states that ISPA training can improve the practical attitudes of mothers of toddlers so that they can foster correct care regarding ISPA. The results of this research are also in line with the opinions of Heriyani and Budiarti (2019) and the opinions of Simunati et al (2022) which states the need for ISPA training for housewives who have toddlers at home, especially those with lower middle school education (WHO, 2008).

There was an increase in the median value of ISPA knowledge in the intervention group from 30 (*pretest results*) to 90 (*posttest results*), namely 200%, and this increase was very significant because  $200\% > 5\%$ ; and there was an increase in the median value of respondents' attitudes from 56 (*pretest results*) to 86 (*posttest results*), namely 30%, and this increase was very significant because

53.6% > 5%. The higher the knowledge of ISPA, the better the attitude of mothers of toddlers in recognizing the Danger Signs of ISPA in their toddlers who are affected by ISPA. On the other hand, there was no increase in the ISPA knowledge media score in the control group from 35 (*pretest results*) to 35 (*posttest results*), namely 0%, and this is not significant because 0% < 5%; and there was an increase in the median value of respondents' attitudes from 54 (*pretest results*) to 56 (*posttest results*), namely 3.7%, but this increase was not significant because 3.7% < 5%. Apart from that, the *pretest* and *posttest* results of respondents' ISPA knowledge were influenced by age, education, employment, income and number of children, because each had a *p-value* ≤ 5%. The *pretest* results of respondents' attitudes were influenced by age, education, employment, income and number of children (each has a *p-value* ≤ 5%); and the *posttest results* of respondents' attitudes are influenced by age, education, marital status, and number of children (each has a *p-value* ≤ 5%).

## CONCLUSION

Based on the results and discussion presented above, the author can draw conclusions if there is a difference in the median difference in the *posttest results* of the knowledge of mothers of toddlers between the intervention group and the control group. In addition, there is a difference in the median difference in the *posttest results* in the attitudes of mothers of toddlers between the intervention group and the control group. The ISPA training was carried out using the Wisdom educational video method using the East Sentani regional language to convey exposure to ISPA knowledge and how to behave in recognizing the Danger Signs of ISPA. This lecture is supported by visual tools, namely audio-visual video and visual media such as leaflets and booklets. The discussion is a question and answer session both between the lecturer and the participants and between fellow ISPA training participants in the form of FGD (Focus Group Discussion).

Training has been proven to be able to increase mothers' knowledge and attitudes in preventing and caring for toddlers with ISPA. Therefore, it is hoped that health service agencies at the Harapan Sentani Community Health Center, Jayapura Regency will improve services to the community, especially regarding ISPA disease in recognizing the Danger Signs of ISPA in toddlers, through training so that the public knows and can recognize the Danger Signs of ISPA in toddlers. In order to increase understanding and attitudes regarding ISPA, mothers of toddlers are expected to take ISPA training at a Community Health Center close to where they live. This training is very important for the health of toddlers suffering from ISPA. Families are expected to support efforts to recognize the Danger Signs of ISPA by implementing behaviors in recognizing the Danger Signs of ISPA.

So that mothers of toddlers can easily understand and practice attitudes when participating in ISPA training, the Harapan Sentani Community Health Center, Jayapura Regency is increasingly improving the quality of learning in nursing care for toddlers with ISPA, and mothers of toddlers can play an active role in recognizing Danger Signs of ISPA. Apart from that, Harapan Sentani Community Health Center, Jayapura Regency can increase the socialization of the health development program for toddlers with ISPA and *posyandu* to the community in general and to mothers of toddlers in particular, especially in terms of caring for toddlers with ISPA which provides a place for interaction and discussion (Focus Group Discussion).

The limitation of this research is that this research is only limited to looking at the effect of training using Local Wisdom-Based Educational Video Media on Mothers' Level of Knowledge and Attitudes in Recognizing the Signs and Dangers of ISPA in Toddlers as measured by *pretest* and *posttest* and has not looked at the implications for reducing ISPA cases in Toddlers after it was held. this training. So further research needs to be carried out on the effect of training on reducing ISPA cases among toddlers in the Noklokla Village Community Health Center Working Area.

## References

- Arikunto, S. (2012). Penelitian tindakan kelas.
- Cahyaningsih, H., Hamzah, A., & Suheti, T. (2021). Pemberdayaan Ibu Balita dalam Penanganan ISPA pada Anak di Wilayah Kerja Puskesmas. *Media Karya Kesehatan*, 4(2).
- Daeli, W. G., Harefa, J. P. N., Lase, M. W., Pakpahan, M., & Lamtiur, A. (2021). Hubungan Pengetahuan Ibu dengan Perilaku Pencegahan ISPA pada Anak Balita di Kampung Galuga. *Jurnal Kedokteran Meditek*, 27(1), 33-38.
- Dewi, A. I., Kaharu, S. N., Azizah, A., Aras, N. F., & Rahma, N. (2023). Pelatihan Penggunaan Media Pembelajaran Jamboard Berbasis Seni Budaya Untuk Guru SDN 16 Poso Kota Utara Kabupaten Poso. *Jurnal Pengabdian kepada Masyarakat Bina Darma*, 3(1), 48-56.
- Dewi, S. P., Madang, K., Santri, D. J., Ermayanti, E., & Santoso, L. M. (2021). Pemanfaatan Video Pembelajaran dalam Pembelajaran dalam Jaringan (Daring). *Jurnal Pembelajaran Biologi: Kajian Biologi dan Pembelajarannya*, 8(1), 41-46.
- Erlinda, V. (2015). Penerapan Model *Family-Centered Nursing* terhadap Pelaksanaan Tugas Kesehatan Keluarga dalam Pencegahan ISPA pada Balita Di Wilayah Kerja Puskesmas Simpang Tiga kabupaten Aceh Besar. *Jurnal Kedokteran Yarsi*. 23(2). Hlm: 168-186.
- Fahrizal, I., & Zulaikha, F. (2018). Hubungan Tingkat Pengetahuan Ibu tentang Vitamin A dengan Kejadian Infeksi Saluran Pernafasan Akut (ISPA) pada Balita di Puskesmas Karang Asam Samarinda.
- Forward Chaining. *Building of Informatics, Technology and Science (BITS)*, 3(4), 738-746.
- Gusmaliza, D., Masdalipa, R., & Yadi, Y. (2022). Sistem Pakar Diagnosa Penyakit ISPA dengan Metode Forward Chaining. *Building of Informatics, Technology and Science (BITS)*, 3(4), 738-746.
- Hanik, N. R., & Wiharti, T. (2022). Penyuluhan dan Pelatihan Pembuatan Makanan Atau Snek Jajanan Sehat Pelancar Asi Pada Ibu-Ibu dan Kader Posyandu Dahlia 5 Kalurahan Jombor Sukoharjo. *Jurnal Pendidikan dan Pengabdian Masyarakat*, 5(1), 12-17.
- Heriyani, F., & Budiarti, L. Y. (2019). Pengelolaan Sampah Dan PHBS Di Rumah Tangga Sekitar Tps Kelurahan Gadang Banjarmasin. *Prosiding Konferensi Nasional Pengabdian Kepada Masyarakat dan Corporate Social Responsibility (PKM-CSR)*, 2, 679-686.
- Kadrianti, E. (2019). Upaya Menekan Penularan Penyakit ISPA dengan Pelatihan Deteksi Dini. *Indonesian Journal of Community Dedication*, 1(1), 10-13.
- Megasari, K., Ardhiyanti, Y., & Juliarti, W. (2020). Pelatihan Pemberian Mp-Asi Pada Ibu Yang Memiliki Bayi Usia 6-12 Bulan di Posyandu Permata Hati Wilayah Kerja Puskesmas Sidomulyo Pekanbaru. *Prosiding Hang Tuah Pekanbaru*, 77-82.
- Notoatmodjo, S. (2007). *Kesehatan Masyarakat: Ilmu Dan Seni*. Jakarta: Rineka Cipta.
- Parwanti, L. (2021). *Pengaruh Kombinasi Terapi Akupresur dan Madu Jahe Terhadap Lama Hari Batuk Pilek Pada Balita Dengan Ispa Di Puskesmas Yosomulyo* (Doctoral dissertation, Poltekkes Tanjungkarang).
- Riyanto, A dan Budiman. (2013). *Kapita Selekta Kuesioner Pengetahuan dan Sikap dalam Penelitian Kesehatan*. Jakarta: Salemba Medika.
- Risal Surudin, P., & Atoy, L. (2016). *Gambaran Pengetahuan Dan Sikap Ibu Tentang Pencegahan Ispa Pada Balita di Puskesmas Poasia Kota Kendari* (Doctoral dissertation, Poltekkes Kemenkes Kendari).
- Sabila, I., Nusri, T. M., Fitriani, D., & Pinilih, A. (2021). Hubungan Lingkungan Fisik Rumah Dengan Kejadian Infeksi Saluran Pernapasan Akut Pada Balita di Puskesmas Sungailiat Kabupaten Bangka Tahun 2020. *SPIRAKEL*, 13(1), 1-9.
- Simunati, S., Hariani, H., Rahman, R., Subriah, S., & Tombokan, M. (2022). Upaya Keluarga dalam Pencegahan Penularan ISPA dan Perawatannya pada Balita di Masyarakat Pesisir Kel. Barombong Kec. Tamalate Kota Makassar. *Media Implementasi Riset Kesehatan*, 3(1), 49-53.
- Sugiyono. (2010). *Metode penelitian Kuantitatif, Kualitatif, R&D*. Bandung: Alfabeta.
- Susanti, N., Nahdliyyah, A. I., Hermawan, A., & Elsant, F. A. (2022). Penyuluhan dan Pelatihan Fisioterapi Pada Anak Dengan Kondisi ISPA Menggunakan Modalitas Baby Massage dan Clapping di Komunitas Posyandu Balita. *Surya Abdimas*, 6(4), 679-689.
- Suwito, B. (2012). *Hubungan Konseling Dalam Penerapan Manajemen Terpadu Balita Sakit (MTBS) Dengan Pengetahuan Dan Sikap Ibu Terhadap Pencegahan Penyakit Ispa Pada Balita Di Puskesmas Pandian Kecamatan Kota Kabupaten Sumenep: Penelitian Cross Sectional* (Doctoral dissertation, Universitas Airlangga).
- Tisnawati, T., & Muchtar, M. (2020). Upaya Peningkatan Keterampilan Ibu Balita Dalam Penatalaksanaan Ispa/Pneumonia di Rumah Dengan Menggunakan Media Kartu Baca Mtbs Di Wilayah Kerja Puskesmas Belimbing Kota Padang. *Ensiklopedia of Journal*, 2(4), 79-85.

- Wahyuningsih, A., & Astarani, K. (2018). Pendidikan Kesehatan Meningkatkan Pengetahuan, Sikap dan Keterampilan Kader Dalam Tatalaksana Anak Sakit ISPA. *Jurnal Penelitian Keperawatan*, 4(1).
- WHO. (2007). *Pencegahan dan Pengendalian Infeksi Saluran Pernapasan Akut (ISPA) yang Cenderung menjadi Pandemi dan Pandemi di Fasilitas Pelayanan Kesehatan*. Alih bahasa. Jenewa: World Health Organization.
- WHO. (2008). *Pencegahan dan Pengendalian Infeksi Saluran Pernapasan Akut (ISPA) di Fasilitas Pelayanan Kesehatan*. Alih bahasa. Jenewa: World Health Organization.
- Widianti, S. (2020). Penanganan Ispa Pada Anak Balita (Studi Literatur). *Jurnal Kesehatan Dan Pembangunan*, 10(20), 79-88.
- Yuliana, Y., Paradise, P., & Kusri, K. (2021). Sistem Pakar Diagnosa Penyakit Ispa Menggunakan Metode Naive Bayes Classifier Berbasis Web. *CSRID (Computer Science Research and Its Development Journal)*, 10(3), 127-138.