Vol 8 No 2, July 2024

eISSN : 2579-8324 pISSN : 2579-8413

ANDALAS OBSTETRICS AND GYNECOLOGY JOURNAL

Correspondence Address:
Editorial Room Andalas Obstetrics and Gynecology Journal, 2nd Floor Obstetrics and Gynecology Department. M. Djamil Central General Hospital Padang, Jl. Perintis Kemerdekaan Padang, West Sumatra 25127

Website:
http://jurnalobgin.fk.unand.ac.id/

RESEARCH ARTICLE

The Relationship of Mother's Knowledge and Educational Level With Triple Elimination Examination

Nada Amelinda Irya[1], Bobby Indra Utama[2], Erda Mutiara Halida[2], Rauza Sukma Rita[2], Fitrayeni[2], Laila[2]

[1] *Student of Study Program In Midwifery ,Faculty of Medicine, Andalas University, Padang, West Sumatra, Indonesia*

[2] *Lecturer of Study Program In Midwifery ,Faculty of Medicine, Andalas University, Padang, West Sumatra, Indonesia*

Correspondence: *Nada Amelinda Irya; amelindanada5@gmail.com ; +62 823-8297-4780*

DOI: *https://doi.org/10.25077/aoj.8.2.775-785.2024*

Abstract

Introduction: *Triple elimination examination can protect mothers and babies from diseases that* are *transmitted from mother to fetus, namely HIV, Hepatitis B, and Syphilis.*

Aims: *This research aims to determine the relationship between the knowledge and education level of pregnant women and triple elimination examination visits at the Ophir Community Health Center, West Pasaman Regency.*

Methods: *The research design uses analytical research with a cross-sectional method. The population of all pregnant women in the third trimester at the Ophir Community Health Center, West Pasaman Regency in 2023. The total sample was 57 pregnant women taken by total sampling. The data used is primary data using interview and observation methods. The instrument uses a questionnaire sheet.*

Results: *Based on the p-value of the relationship between maternal knowledge and triple elimination examination visits, the p-value was 0.000 (p<0.05). Then, based on the p-value of the relationship between maternal education level and triple elimination examination visits, the result was a p-value of 0.000 (p<0.05).*

Conclusion: *The relationship between knowledge and maternal education level with triple elimination examination visits at the Ophir Community Health Center, West Pasaman Regency.*

Keywords: *knowledge, education level, triple elimination*

© 2024 Author. (CC BY) license.
Published by Faculty of Medicine Andalas University.

https://doi.org/10.25077/aoj.8.2.775-785.2024

INTRODUCTION

Human immunodeficiency virus (HIV), Syphilis, and Hepatitis B are infectious diseases that have similarities in the mode of transmission. The ways of transmission of these three diseases can be through blood, sexual contact, and by transmission, namely transmission from mother to child. Transmission by transmission from mother to child occurs through the placenta during pregnancy, the birth canal during delivery and breast milk during breastfeeding. The risk that can occur is that the child will die either during the birthing process or during breastfeeding and even though the fetus/baby can survive, there is a big possibility for the child to suffer from sexually transmitted diseases from infancy so they must continue to receive treatment throughout their life [1]. Transmission of infection from mother to child has a high presentation, stated in the Guidebook for the Program for Preventing Transmission of HIV, Syphilis and Hepatitis B from mother to child published by the Indonesian Ministry of Health in 2019, the presentation of HIV transmission ranges from 20-50% and the risk of transmission can decrease by 2% If good transmission prevention is carried out, in Syphilis the figure is in the range of 69-80%, while in Hepatitis B it is 90% depending on the mother's HBV DNA level[2]. Transmission of these viruses can be prevented effectively through prevention at reproductive age, preventing early pregnancy. undesirable, ANC (Ante Natal Care) screening, management and vaccination [3].

According to WHO, the transmission rate can be reduced to below 5% and should be 15% with preventive activities. Based on this, through Minister of Health Regulation No. 52 of 2017 concerning Elimination of Transmission of Human Immunodeficiency Virus, Syphilis and Hepatitis. The government is taking action by holding a program called Triple Elimination. Triple elimination is an effort program to eliminate infection with three infectious diseases from mother to child, namely HIV/AIDS, Syphilis and Hepatitis B infections which are integrated directly into maternal and child health programs [4]. Early detection can only be done by laboratory examination which can be done from the start pregnancy and carried out inclusively at the same time as the 10 T examination in fully monitored antenatal care which is carried out with a rapid diagnostic test. The government has set an initial target of achieving the Elimination of Transmission of HIV, Syphilis and Hepatitis B from mother to child by 2022, by reducing the number of cases of newborn infection to <50 cases of children infected with HIV, Syphilis and Hepatitis per 100,000 live births through optimizing the coverage of antenatal care and Quality early detection, targeting 100% of pregnant women to be tested for HIV, Syphilis and Hepatitis B by 2022 [5].

Based on data obtained from WHO, the world achievement in implementing triple elimination examinations is 1,100,000,000 (1.1 billion) pregnant women in 2020, in 2021 it will be 1,000,000,000 (1 billion) pregnant women, and in 2022 as many as 1,200,000,000 (1.2 billion) pregnant women have been examined. From this data, it can be seen that it decreased in 2021, but then increased again in 2022 [6].

For Asia itself, when compared to the triple elimination examination, the lowest was found in South Asian and Southeast Asian countries [7]. As a Southeast Asian country, Indonesia has achieved triple elimination of 2,404,754 pregnant women in 2020, then 2,485,430 pregnant women in 2021,

© 2024 Author. (CC BY) license.
Published by Faculty of Medicine Andalas University.

and 2,824,039 pregnant women in 2022. Based on these data, it is clear that there are increase in triple elimination checks in 2022. This is very good news, even though this achievement has not yet met the national target.

Then, data sourced from the West Sumatra Provincial Health Service revealed that in 2020 as many as 50,376 pregnant women had been examined, in 2021, 79,162 pregnant women had been examined, and in 2022, 65,107 pregnant women had been examined. It can be concluded that triple elimination examinations in West Sumatra have a fairly good trend, where every year there is an increase in the number of pregnant women undergoing triple elimination examinations [8].

However, from data obtained from the West Pasaman Health Service [9], it is known that in the last 3 years West Pasaman has experienced a decreasing trend. In 2020 there were 7,089 pregnant women who underwent triple elimination examinations, in 2021 this decreased to 5,982 pregnant women who underwent examinations, and decreased again in 2022 to only 1,022 pregnant women. The same thing was found at the Ophir community health center, based on data, triple elimination examinations in the Ophir community health center work area also experienced a decline. A total of 595 pregnant women were examined in 2020, as many as 516 pregnant women were examined in 2021, and as many as 509 pregnant women were examined in 2022. This downward trend is influenced by many factors, the factors that make this possible can be the influence of age. , education, gestational age, maternal family, economic social, income, knowledge, motivation and attitudes.

The government's strategy in preventing the transmission of HIV, Syphilis and Hepatitis B from mother to child is greatly influenced by pregnant women's knowledge regarding triple elimination screening [10]. Therefore, it is necessary to increase the knowledge of pregnant women by providing information to mothers. The mother's knowledge and acceptance of new information is closely related to the mother's level of education, one of which is health education. The higher the level of education, the more knowledge one has, which will influence the mother's awareness and compliance in implementing triple elimination. The definition of health education itself is the process of changing life behavior based on self-awareness of individuals, groups and communities in an effort to maintain and improve health status. The higher a mother's knowledge regarding HIV, Syphilis and Hepatitis B, the higher the mother's level of awareness so that the mother will be more compliant in implementing triple elimination, which proves that the level of knowledge and education influences maternal compliance in implementing triple elimination [11].

Based on an initial survey conducted by researchers on 10 pregnant women in the first trimester, 8 of them had not yet undergone a triple elimination examination. This is because pregnant women do not understand the benefits of triple elimination, mothers are worried that the results will be reactive and will cause problems for their health. Then, several respondents also stated that they were too busy taking care of the house so they did not have time to carry out triple elimination checks. This shows that the mother does not fully understand the importance of triple elimination examinations.

© 2024 Author. (CC BY) license.
Published by Faculty of Medicine Andalas University.

In a journal researched by Bintang Petralina (2020), it was found that there was a significant relationship between maternal knowledge and triple elimination examination visits. Pregnant women who have good knowledge about triple elimination will carry out triple elimination examinations during their pregnancy. Good knowledge greatly influences a person's mindset, because the higher the knowledge, the higher a person's ability to understand information. Then, based on research in 2021 conducted by Shuviatul Chasanah, et al, the results showed that there was an influence on the mother's education level with triple elimination examination visits. Education is very influential on a person's learning process, the higher a person's education, the easier it is for that person to obtain information. If the mother has a high level of education, it will be easier for the mother to get information about triple elimination.

Based on the description presented in the background, the researcher intends to conduct research on "The Relationship between Knowledge and Education Level of Pregnant Women and Triple Elimination Examination Visits in the Ophir Health Center Working Area".

METHODS

This type of research uses a cross-sectional method in the work area of the Ophir Health Center, West Pasaman Regency. This research was conducted from March 2023 to March 2024. The case population in this study was all mothers in their third trimester in the working area of the Ophir Health Center, West Pasaman Regency. The sample for this research was 57 respondents. The sampling technique used was total sampling.

The tool used to collect data in this research was a questionnaire regarding triple elimination, HIV, Hepatitis B, and Syphilis. After the data was collected and entered, univariate and bivariate data analysis was carried out.

RESULT

Based on the p-value of the relationship between maternal knowledge and triple elimination examination visits, the p-value was 0.000 ($p<0.05$). Then, based on the p-value of the relationship between maternal education level and triple elimination examination visits, the result was a p-value of 0.000 ($p<0.05$).

© 2024 Author. (CC BY) license.
Published by Faculty of Medicine Andalas University.

https://doi.org/10.25077/aoj.8.2.775-785.2024

DISCUSSION

Knowledge

Table 1. Frecuency Distribution of Knowledge and Education Level of Pregnant Women at the Ophir Community Health Center, West Pasaman Regency

Variable	f (n=57)	%
Knowledge		
Good	19	33,3
Enough	12	21,1
Not Enough	26	45,6

Based on the research results, it was found that of the 57 respondents, the majority of mothers with less knowledge were 26 (45.6%) respondents and of the 25 respondents, 25 (71.4%) respondents did not undertake triple elimination examination visits. This is in line with research conducted by Ketut Eka Larasati Wardana and Yopita Triguno in 2022 with the title "Health Education Regarding the Triple Elimination Examination of Pregnant Women at the Seririt II Health Center" which obtained the same results, namely the frequency of mothers with good knowledge was 14 (20.5 %) respondents, mothers who had sufficient knowledge were 20 (31.8%) respondents, and 30 (47.7%) respondents had less than 30 knowledge [12].

Table 2. Relationship Between Knowledge and Triple Elimination Examination Visits at the Ophir Community Health Center, West Pasaman Regency

Knowledge	*Triple* Elimination Examination Visit						*p-Value*
	Checked		Not Checked		Total		0,000
	f	%	f	%	f	%	
Good	19	100,0	0	0,0	19	100	
Enough	2	16,7	10	83,3	12	100	
Not Enough	1	4,5	25	71,4	26	100	
Total	22	38,6	35	61,4	57	100	

Based on the Table 2 results of statistical tests using the Chi-square test to determine the analysis of the relationship between knowledge and triple elimination inspection visits, a p-value of 0.000 was obtained (p-value < 0.05), then H0 was rejected and Ha was accepted, which means there is a relationship between knowledge and triple elimination inspection visit in the Ophir Community Health Center Working Area, West Pasaman Regency. This research is in line with that carried out by Rini Kundaryanti in 2022 with the title "Factors Associated with Triple Elimination Examination in Pregnant Women" which shows the results of analysis using the Chi-square test with a p-value of 0.00 (p-value < 0.05), then H0 is rejected and Ha is accepted, meaning there is a relationship between knowledge and triple elimination examination visits in pregnant women [13].

Research conducted by Fitriani Veronika in 2023 with the title "Relationship between sources of information, knowledge and the role of health workers with triple elimination

© 2024 Author. (CC BY) license.
Published by Faculty of Medicine Andalas University.

examinations" obtained results of 29 respondents with good knowledge, there were 22 (75.9%) respondents who carried out triple elimination examinations and only 7 (24.1%) respondents did not carry out triple elimination examination. Then, for 46 respondents with low knowledge, the results were obtained from 5 (10.9%) respondents carrying out a triple elimination examination, while 41 (89.1%) respondents did not carry out a triple elimination examination [14].

In contrast to research conducted by Riana Septiyani with the title "Factors Associated with Triple Elimination Examinations for Pregnant Women at the Cibeber Health Center, Cimahi City in 2022" stated that there were 51 respondents with good knowledge and of these 51 respondents, 22 (43, 1%) did not carry out a triple elimination examination, and 29 (56.9%) respondents had carried out a triple elimination examination. Meanwhile, among pregnant women with less knowledge, there were 37 respondents, 26 (74.3%) of whom did not carry out triple elimination examinations and only 9 (25.7%) respondents carried out triple elimination examinations [15].

According to the researchers' assumptions, these results show that if the mother's level of knowledge is good regarding triple elimination examinations, the possibility of mothers carrying out triple elimination examinations will increase. Based on this, it can be concluded that, if there are pregnant women who have the same characteristics and background, then mothers who have higher knowledge will be better at complying with triple elimination examinations, because mothers who have higher knowledge will have greater awareness. also higher in carrying out triple elimination examinations.

Education

Table 3. Frequency Distribution of Pregnant Women's Education Levels at the Ophir Community Health Center, West Pasaman Regency

Variable	f (n=57)	%
Education		
Low Education	33	57,9
Higher Education	24	42,1

Based on the research results, it was found that the percentage of respondents who had a low level of education was greater than respondents with a high level of education, namely 33 (57.9%) respondents. Then, of the 33 respondents, 28 (84.8%) respondents did not undertake a triple elimination examination visit. This is in line with research conducted by Dewi Dedes Rahayu with the title "Factors that Influence Pregnant Women on the Use of the Triple Elimination and PMTCT Program" in 2023, which obtained results from 20 respondents who had a higher education level, 17 (85%) of whom carried out a triple elimination examination and 3 (15%) respondents did not carry out a triple elimination examination. Meanwhile, there were 56 respondents with low education, 30 (53.6%) respondents carried out a triple elimination examination and there were 26 (46.4%) respondents who did not carry out a triple elimination examination [16].

© 2024 Author. (CC BY) license.
Published by Faculty of Medicine Andalas University.

https://doi.org/10.25077/aoj.8.2.775-785.2024

Table 4. Relationship Between Maternal Education Level and Triple Elimination Examination Visit at the Ophir Community Health Center, West Pasaman Regency

Education	***Triple* Elimination Examination Visit**					***p-Value***
	Checked		**Not Checked**		**Total**	**0,000**
	f	%	f	%	f	%
Higher Education	**17**	**70,8**	**7**	**29,2**	**24**	**100**
Low Education	5	15,2	28	84,8	33	100
Total	**22**	**38,6**	**35**	**61,4**	**57**	**100**

Based on the Table 4 results of statistical tests using the Chi-square test to determine the analysis of the relationship between knowledge and triple elimination inspection visits, a p-value of 0.000 was obtained (p-value < 0.05), then H0 was rejected and Ha was accepted, which means there is a relationship between the level of education with a triple elimination inspection visit in the Ophir Community Health Center Working Area, West Pasaman Regency. This research is in line with that carried out by Rika Seha Wijayanti in 2023 with the title "Determinants of the Implementation of Triple Elimination in Pregnant Women in the Wanajaya Cibitung Community Health Center Area for the January-June 2023 Period" which obtained the results of the Chi-square test which resulted in a p-value of 0.000 (p -value < 0.05), which means H0 is rejected and Ha is accepted. It can be concluded that there is a relationship between education level and triple elimination examination visits for pregnant women in the Wanajaya Cibitung Community Health Center area in 2023 [17].

In contrast to the research above, in research conducted by Warliana and Eneng Solihah in 2023 with the title "Utilization of Triple Elimination Services in Early Detection of HIV, Syphilis and Hepatitis B Infection from Mother to Child" the results were obtained from 92 respondents with higher education, 51 of which were (55.4%) respondents carried out a triple elimination examination and 41 (44.6%) of them did not carry out a triple elimination examination. Furthermore, there were 66 respondents with low education, of which 40 (60.6%) carried out a triple elimination examination and 26 (39.4%) did not carry out a triple elimination examination [18].

In research conducted in 2022 by Elfira Ramayanti and Sholikah Sulistyonigtyas with the title "The Factor Affecting Behavior Of Pregnant Women In Conducting Triple Elimination Examination During The Pandemic At Nani Rusnani Maternity Clinic" the results showed that respondents with low education were 38 (95%) and only 2 (5%) respondents with higher education [19].

In the research entitled "Overview of HIV/AIDS Examination in Pregnant Women Based on Characteristics at the Binjar I Community Health Center, Banjar City" it was concluded that the majority of respondents who had low education had economic problems and were prevented from continuing their education so that respondents decided to marry at a young age. Therefore, low education triggers delays in thinking and receiving information [20].

According to researchers' assumptions, education also determines how easily a person can absorb and understand the knowledge they have acquired. Because, education is guidance given from other people to someone about something in order to increase understanding so that the

© 2024 Author. (CC BY) license.
Published by Faculty of Medicine Andalas University.

https://doi.org/10.25077/aoj.8.2.775-785.2024

person can understand the material. Education clearly has an influence on knowledge, where someone who has a higher education means it is easier for that person to obtain and understand information.

CONCLUSION

Based on the results of research and discussions that have been carried out regarding the relationship between the knowledge and education level of pregnant women and triple elimination examination visits in the Ophir Health Center working area, the conclusion obtained is that there is a relationship between the knowledge and education level of pregnant women and triple elimination examination visits in the working area of the health center. Ophir.

For future researchers, they can conduct further research to identify variables related to triple elimination examination visits that have not been studied. It is recommended that future researchers examine external factors that influence triple elimination examination visits.

© 2024 Author. (CC BY) license.
Published by Faculty of Medicine Andalas University.

REFERENCES

1. Luh Made Ina Krishanty, Putu Dian Prima Kusuma Dewi, Indrie Lutfiana. Pencapaian Triple Eliminasi Pada Ibu Hamil Di Wilayah Puskesmas Banjar. Nersmid J Keperawatan Dan Kebidanan. 2022;5(2):134-143.
2. Azizah N, Adethia K, Damanik Lp, Sinaga R, Pitaloka D. Relationship Behavior Of Pregnant Women To The Utilization Of Triple Elimination Examination In Puskesmas Kuala Bangka Kab. Labuhan Batu Utara. Int J Midwifery Res. 2022;2(1).
3. WHO. The Triple Elimination Of Mother-To-Child Transmission Of Hiv, Hepatitis B And Syphilis In Asia And The Pacific, 2018–2030. Worls Heal Organ West Pacific Reg. Published Online 2018:2018-2030
4. Kemenkes RI. Pencegahan Penularan HIV Ibu ke Anak (PPIA).Jakarta: Kemenkes, 2019.
5. Kemenkes. Peraturan Menteri Kesehatan Republik Indonesia Nomor 52 Tahun 2017 Tentang Eliminasi Penularan Human Deficiency Virus, Sifilis Dan Hepatitis B Dari Ibu Ke Anak. Prog Phys Geogr.
6. Wahyuni C. Health Education Analysis Of Triple Elimination Of Hiv, Syphilis, And Hepatitis B Towards Interest In Screening Of Pregnant Women. J Qual Women's Heal. 2022;5(2):169-175.
7. Holifah K, Tutik Sri Hariyati R, Faradita Aryani D. Mobile Health Voluntary Counseling And Testing Untuk Pencegahan Hiv-Aids: Literature Review. J Nurs Care. 2023;6(1):87-94.
8. Ditjen P2p. Laporan Eksekutif Perkembangan Hiv Aids Dan Penyakit Menular Seksual (Pims) Triwulan I Tahun 2022. Kementeri Kesehat Republik Indones. Published Online 2022.
9. Barat Dks. Tripel Eliminasi 3 Tahun Terakhir. (Dinas Kesehatan Sumatera Barat, Ed.).; 2022.
10. Wiantini Nn, Widiastini Lp, Made N, Sumawati R. The Effect Of Counseling On Knowledge Levels And Intentions Of Pregnant Women In The Implementation Of Triple Elimination Screening. J Kesehat Pasak Bumi Jalimantan. 2022;5(1):17-21.
11. Sabilla Ff, Agustina T, Lestari N, Raharja S. Hubungan Tingkat Pendidikan Dan Usia Ibu Hamil Terhadap Perilaku Kunjungan Pemeriksaan Triple Eliminasi Di Puskesmas Sumberlawang Sragen. J Kebidanan Indones. 2020;11(2):93.
12. Wardana Kel. Pendidikan Kesehatan Pemeriksaan Triple Eliminasi Pada Ibu Hamil Di Puskesmas Seririt Ii. 2022;4(1):21-28.
13. Solama W. Faktor-Faktor Yang Berhubungan Dengan Pemeriksaan Kehamilan Pada Ibu Hamil. J 'Aisyiyah Med. 2022;2(1):177-182.
14. Veronika F. Hubungan Sumbern Informasi, Pengetahuan Dan Peran Tenaga Kesehatan Dengan Pemeriksaan Triple Eliminasi. 2023;12:167-174.
15. Septiyani R. Biograph-I : Journal Of Biostatistics And Demographic Dynamic Faktor-Faktor Yang Berhubungan Dengan Pemeriksaan Triple Eliminasi Pada Ibu Hamil Di Puskesmas Cibeber Kota Cimahi. 2023;3(1).
16. Karo Mb, Rahayu Dd, Telaumbanua Lk. Faktor Faktor Yang Mempengaruhi Ibu Hamil Terhadap Pemanfaatan Program Triple Eliminasi Dan Pmtct. Siklus J Res Midwifery Politek Tegal. 2023;12(02):173-180.

© 2024 Author. (CC BY) license.
Published by Faculty of Medicine Andalas University.

17. Wiyayanti Rs, Sutarno M. Determinan Terlaksananya Pemeriksaan Triple Eliminasi Pada Ibu Hamil Di Wilayah Puskesmas Wanajaya Cibitung Bekasi Periode Januari-Juni Tahun 2023. J Soc Sci Res. 2023;3:10457-10466.
18. Warliana. Pemanfaatan Pelayanan Triple Eliminasi Utilization Of Triple Elimination Services In Early Detection Of The Risk Of Hiv ,. 2023;15(1):144-153.
19. Chasanah S, Dewanti L, Anis W. The Influence Of Internal Factors Of Pregant Women On Triple Elimination Examination. Indones Midwifery Heal Sci J. 2021;5(1):88-102.
20. Eldiani H, Russiska R, Heryanto Ml. Gambaran Pemeriksaan Hiv/Aids Pada Ibu Hamil Berdasarkan Karakteristik Di Puskesmas Banjar I Kota Banjar. J Midwifery Care. 2020;1(1):69-77.

© 2024 Author. (CC BY) license.
Published by Faculty of Medicine Andalas University.