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CORRELATION OF EDUCATIONAL LEVEL AND AGE OF PREGNANT WOMEN ON TRIPLE ELIMINATION EXAMINATION IN SENTUL HEALTH CENTER WORKING AREA BOGOR DISTRICT IN 2023

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Abstract

Background: According to the 2020 Indonesia Health Profile, more than 90% of children contract HIV, Syphilis, and Hepatitis B infections from their mothers. Triple elimination is a program that aims to achieve and maintain mother-to-child elimination of HIV/AIDS, Hepatitis B, and Syphilis.
Method: This study, which is of significant importance, aims to determine the correlation between the educational level and age of pregnant women on triple elimination examinations in the work area of the Sentul Health Center, Bogor Regency, in 2023. This research uses a quantitative analytical research design. The population of this study is all pregnant women in the work area of the Sentul Health Center, Bogor Regency, for the month. December 2023, a total of 50 people used a sampling technique, namely total sampling.
Result: The results of this study were based on the chi-square test, namely that there was a significant correlation between the level of education of pregnant women and the triple elimination examination, the p-value was 0.001 <α value (0.05), and there was a significant correlation between the age of the pregnant mother and the triple elimination examination, the value was obtained a p-value of 0.001 <α value (0.05).
Suggestions: Providing knowledge and information about triple elimination examinations for pregnant women is recommended.

Keywords: Education Level, Age, Triple elimination, Pregnant Women

Introduction

Maternal Mortality Rate (MMR) moment This is still far from the target of the Sustainable Development Goals (SDGs), which aim to lower the Maternal Mortality Rate (MMR) by 70 per 100,000 Live Births (LB) and the Neonatal Mortality Rate (NMR) in lower 25 per 100,000 LB for the 2016-2030 period. WHO plans to eliminate the transmission of infectious diseases from mother to child (*mother-to-child transmission*). The three primary diseases focus are HIV, Hepatitis B, and Syphilis. These three diseases are endemic contagious diseases in the Asia and Pacific region. (WHO, 2018). *The United Nations Program on HIV and AIDS* (UNAIDS) reports that In 2015, globally, around 36.7 million people had HIV, with around 2.1 million of them being new cases. In 2021, there are an estimated 160,000 infections of new HIV in children, and globally, about 3.1 million children are HIV positive. Transmission of HIV from Mother to child accounts for 9% of all new infections in the world (UNAIDS, 2021).

The purpose of HIV testing for pregnant women is to prevent HIV transmission to babies born to HIV - infected mothers. Transmission of HIV from mother to baby can occur during pregnancy, childbirth, and breastfeeding. HIV infection in babies can cause pain, disability, And Death, thus harming the survival and quality of life of children. The National Program for Prevention and Control of Viral Hepatitis B moment Focuses on the Prevention of Mother-to-Child Transmission (PPIA) because 95 % of Hepatitis B infections are transmitted vertically, meaning from a mother who is positive for Hepatitis B to the baby she gives birth to. Early Detection of Hepatitis B (DDHB) activities have been implemented since 2015. If a pregnant woman with syphilis does not get appropriate treatment, it can infect 67 babies, and some pregnancies may end in abortion, stillbirth, or congenital syphilis. Also, If a Mother suffers from hepatitis B, 95% of babies born will be infected, and the babies will not be protected from hepatitis B unless they accept treatment standards (Ministry of Health, 2017).

According to the 2020 Indonesian Health Profile, more than 90% of children contract HIV, Syphilis, and Hepatitis B infections from their mothers. The prevalence of HIV, Syphilis, and Hepatitis B infection in pregnant women is 0.3%, 1.7%, and 2.5%, respectively. The risk of mother-to-child transmission for HIV is 20%-45%, for Syphilis is 69-80%, and for Hepatitis B is more than 90%. With Indonesia's large population, the above figure is relatively high, so more attention is needed to handle it

(Ministry of Health, 2017).

Triple Elimination is a program that aims to achieve and maintain mother-to-child elimination from HIV/AIDS, Hepatitis B, and Syphilis. To achieve better health for women, children, and their families through a coordinated approach, by 2020, 51.37% of pregnant mothers will carry out Detection of Early Hepatitis B. Your role in this research is crucial in understanding and improving the outcomes of this program.

Of the target number of pregnant women in 2020, 5,221,784 Mothers were pregnant. Achievements This still has not achieved the target, namely Early Detection of Hepatitis B; at least 80% of pregnant women are examined integrated with HIV and Syphilis (Triple Elimination). In 2020, there were 2,404,754 pregnant women tested for HIV in Indonesia. From this examination, getting it 6,094 (0.25%) pregnant women were HIV positive. Provinces with a percentage of pregnant women who positive for HIV highest is Province Papua West at 2.56%, Riau Islands at 2.32%, and Papua at 0.88% (Ministry of Health of the Republic of Indonesia, 2021).

Urgent efforts are needed to break the chain of transmission of HIV, Syphilis, and Hepatitis B by eliminating transmission, which is carried out as a form of State responsibility in ensuring the survival of children. HIV infection, Syphilis, and Hepatitis B have relatively the same transmission pattern, namely transmitted through sexual contact, blood exchange/contamination, and vertically from mother to child (Ministry of Health, 2017). According to Wulandari's research results (2023), the title factors related to triple examination elimination in the Way Mili Community Health Center Working Area, East Lampung Regency. Based on the research results using statistical tests, the p-value = 0.001 (< 0.05), this shows a relationship between education and triple elimination examinations in the Way Mili Health Center Working Area, East Lampung Regency. With developments in the world of education, Which changed significantly, Lots of change patterns, and educators, from a typical and rigid educational pattern to a more modern one.

Meanwhile, according to the research results by Sabilla et al. (2020), the title research on the relationship between education level and age of pregnant women on the behavior of visiting triple elimination examinations at the Sumberlawang Community Health Center, Sragen. Based on the results of the analysis using the Fisher method show that there is a relationship between age and triple elimination examination visits with p-

value = 0.010 (< 0.05).

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Based on the data above, the author is interested in researching "Level Relationships Education and Mother's Age Pregnancy against Triple Elimination Examination in the Sentul Community Health Center Working Area, Bogor Regency in 2023."

Method

The type of research used by researchers is type study quantitative Analytical is research to determine whether there is a relationship between variable independent and Dependent, with a Cross-Sectional approach design. In this research, we will study the relationship between the level of education and the age of the pregnant mother on the triple elimination examination, namely the level of education and the age of the pregnant mother as independent variables and the triple elimination examination as the dependent variable. The population in the study was all pregnant women in the work area of the Sentul Health Center, Bogor Regency, for the period December 2023, a total of 50 people.

The researcher used the technique that will be used in sampling is *total sampling*, so the sample in the research is all pregnant women in the work area of the Sentul Community Health Center, Bogor Regency, for the period December 2023 with a total of 50 people at the same time as the research time.

Univariate analysis is an analysis of each variable expressed by describing it and summarizing data scientifically in tables or graphs. In this study, bivariate analysis was carried out on two variables that were thought to be related or correlated.

Results

A. Univariate Analysis

Table 1

Distribution Frequency Level Pregnant Women's Education

Level of Education	Amount	Percentage (%)
Primary	13	26.0
Intermediate	35	70.0
High	2	4.0
Total	50	100

Based on the results of Table 1, a picture of the education level variable shows that out of 50 respondents, respondents had a level 13 people had primary education (26.0%), 35 people had secondary education (70.0%), and two people had higher education (4.0%).

Table 2
Distribution Frequency Age Pregnant mother

Age	Amount	Percentage (%)
< 25 years	13	26.0
25-40 Year	35	70.0
> 40 Years	2	4.0
Total	50	100

Based on the results of Table 2, an overview of the age variable shows that out of 50 respondents, 13 were < 25 years old (26.0%) and were 25-40 years old. As many as 35 people (70.0%), And Those aged > 40 years were two people (4.0%).

Table 3
Distribution Frequency Examination Triple Elimination of Pregnant Women

Examination Triple Elimination	Amount	Percentage (%)
Do the test	26	52.0
Didn't do the test	24	48.0
Total	50	100

Based on the results of Table 3, an overview of the triple elimination examination variables is obtained results that from 50 respondents who carried out the triple elimination test were 26 (52.0%), and those who did not do the triple elimination test were 24 (48.0%).

B. Bivariate Analysis

Table 4
Connection Level Education and Age Mother Pregnant to Inspection Triple Elimination

Variable	Inspection of *Triple Elimination*						
	Doing Tests *Triple Elimination*		Not doing the test *Triple Elimination*		Total		P *Value*
Level of education	n	%	n	%	N	%	
%Primary	12	92.3	1	7.7	13	100	0.001
Intermediate	13	37.1	22	62.9	35	100	
High	1	50.0	1	50.0	2	100	
Total	26	52.0	24	48.0	50	100	
Mother's Age							
< 25 years	12	92.3	1	7.7	13	100	0.001
25-40 years	13	37.1	22	62.9	35	100	
> 40 years	1	50.0	1	50.0	2	100	
Total	26	5 2 .0	24	48 .0	50	100	

The results of Table 4 show that of the 50 respondents, the majority of them were 35 respondents who had higher education and carried out the triple elimination test. As many as 13 (37.1%) and 22 (62.9%) did not complete the triple elimination test. The results of the chi-square test between the educational level of pregnant women and the triple elimination examination showed a p-value of 0.001 <α value (0.05), so it can be concluded that there is a significant relationship between the educational level of

pregnant women and the triple elimination examination in the work area Sentul Community Health Center, Bogor Regency in 2023.

Whereas For variable age Mother Pregnancy shows that of the 50 respondents, the majority were 35 respondents who were aged 25-40 years and carried out the triple elimination test as many as 13 people (37.1%) and did not carry out the triple elimination test as many as 22 people (62.9%). Intermediate *chi-square test results aged Mother pregnant to inspection triple elimination obtained a mark p-value* as significant as 0.001 <α value (0.05), so it can be concluded that there is an essential relationship between age pregnant women for triple elimination examinations in the Sentul Regency Health Center working area Bogor in 2023.

Discussion

A. Frequency Distribution of Education Levels and Ages of Pregnant Women in the Working Area of Sentul Community Health Center, Bogor Regency, in 2023

Based on the results of univariate analysis, a picture of the education level variable showed that out of 50 respondents, respondents had a level education base as much 13 people (26.0%), 35 people had a secondary education level (70.0%), and two people had a higher education level (4.0%). Meanwhile, for variables, age obtained results from fifty respondents, respondents were aged < 25 years, 13 people (26.0%), 35 were aged 25-40 years person (70.0%), and> 40 years as many as two people (4.0%).

According to theory, Arisandra (2016) states that the level of education is a unit of organized information that usually consists of a fact or procedure applied directly to performance. Karuniawan (2019) noted that education with various programs has a vital role in obtaining and improving the quality of a person's professional abilities. Hidayat and Nurasyiah (2017) state that education is an activity that increases a person's general knowledge, including theory, to decide problems related to goal achievement activities. Age is a period since a person existed and can be measured using unit time seen from a chronological perspective, average individuals can be seen to have the same degree of anatomical and physiological development (Sonang *et al.*, 2019). Age is also defined as a person's last birthday (Nur *et al.*, 2018).

Based on researchers' assumptions, the level of education is a stage of

education that is determined based on students' development level, the goals to be achieved, and the will to be developed. The level of education influences changes in attitudes and healthy living behavior. Higher education will make it easier for a person or community to absorb information and implement it in daily behavior and lifestyle, especially regarding health.

Age is defined as the length of a person's existence measured in units of time. The mother's age at the time of pregnancy influences the condition of the mother's pregnancy itself because apart from being related to the maturity of the reproductive organs, it is also related to psychological conditions, including readiness to accept pregnancy.

B. Frequency Distribution of Triple Elimination Examinations in the Working Area of Sentul Community Health Center, Bogor Regency, in 2023

Based on the results of the univariate analysis, an overview of the examination variable of the triple elimination test variable showed that out of 50 respondents, the number of respondents who carried out the triple elimination test was 26 person (52.0%), and not doing test *triple* as many *eliminations as possible* 24 people (48.0%).

Prevention of HIV transmission from mother to child programmatically starts with screening or simple, early detection of HIV infection, Syphilis, and Hepatitis B, according to the Regulation of the Minister of Health of the Republic of Indonesia No. 37 of 2012 concerning the Implementation of Public Health Center Laboratories to implement PPIA, namely to minimize the risk of transmission infection from mother to baby. The earlier the examination is carried out, the quicker treatment will be received and the smaller the risk of transmission. Pregnant women often come for PPIA examinations in the third trimester of pregnancy for various reasons. At every level of MCH services, health workers in health service facilities must carry out Triple Elimination tests for all Mothers with minimum. Once as part of a routine laboratory examination during the antenatal examination at the first visit (K1) until just before delivery. Triple Elimination Examination for HIV, Syphilis, and Hepatitis B should be done at the first visit in the first trimester (Ministry of Health, 2020).

C. The Relationship between Educational Level and Age of Pregnant Women on Triple Elimination Examinations in the Sentul Community Health Center

Working Area, Bogor Regency in 2023

The chi-square test between the educational level of pregnant women, the triple elimination test was obtained with a mark p-value as significant as 0.001 <α value (0.05), so it can be concluded that there is a significant relationship between the level of education of pregnant women of the triple elimination examination in the work area of the Sentul Community Health Center, Bogor Regency in 2023. Meanwhile, based on the results of the chi-square test between the age of pregnant women and the triple elimination examination, it was found mark p-value as significant as 0.001 <α value (0.05), so it can be concluded that there is a significant relationship between the age of pregnant women and triple elimination examinations in the Sentul Community Health Center work area, Bogor Regency, in 2023.

According to theory, the level of education is a stage of education that is determined based on the level of development of students, the goals to be achieved, and the will to be developed. The level of education affects changes in attitudes and healthy living behavior. Higher education will make it easier for a person or community to absorb information and implement it in daily behavior and lifestyle, especially regarding health. Age is defined as the length of a person's existence measured in units of time. The mother's age at the time of pregnancy influences the condition of the mother's pregnancy itself; apart from being related to the maturity of the reproductive organs, i t also relates to psychological conditions, including readiness to accept pregnancy (Putri, 2019). Age can impact an individual's ability to understand and their overall mindset. As you age, you will continue developing and improving your understanding and thinking patterns. This will make it possible to acquire knowledge more effectively and comprehensively.

The results of this research are not in line with a study in Sleman, 2015. In the study, It was concluded that the level of education did not influence visits To carry out tests for HIV and other sexually transmitted infections, including syphilis (Setiyawati, 2015). Other research in Tabanan, Indonesia, in 2018 also showed results that were not in line with this research. This study concluded that the education level of pregnant women did not influence hepatitis B examination visits (Dhyanaputri *et al*., 2019). HIV testing visits for pregnant women are not only

influenced by education level; other factors that are more influential are perceptions of obstacles, behavioral guidelines, and husband's support (Halim, 2016).

These results do not align with a study in Semarang, Indonesia, conducted in 2012. In this study, it was concluded that age did not influence maternal visits. For do inspection HIV and other sexually transmitted infections (Legiati *et al*., 2012). Research in Medan, 2019 also showed similar results. In this research, it was concluded that age does not affect visits by pregnant women to undergo hepatitis B examinations (Putri, 2019). In this study, age had no effect Because of knowledge and family support; this perception is more influential than age.

Based on the researchers' assumptions, it was concluded that the factors that influence pregnant women to carry out *triple elimination examinations* are family support, knowledge, perceptions, and attitudes.

Conclusion

1. Based on the results of univariate analysis, the picture obtained is that part of the big Mother carried out the Triple Elimination test by 52%. In the education level variable, partial results were obtained: significant respondents with a secondary education base of 70%, respondents with a level education base of 26%, and the smallest with a higher education level of 4%. While variable age, the results showed that most Mothers are aged 25-40 years 70 %, age <25 years amounting to 26%, and the least at age >40 years by 4%.
2. The chi-square test between the educational level of pregnant women and the triple elimination examination, it was found that the p-value was 0.001 <α value (0.05), so it can be concluded that there is a significant relationship between the educational level of pregnant women and the triple elimination examination in the work area of the Community Health Center. Sentul Bogor Regency in 2023. Meanwhile, the results of the chi-square test between the age of pregnant women and the triple elimination examination showed a p-value of 0.001 <α value (0.05), so it can be concluded that there is a significant difference between the age of pregnant women and triple elimination examinations in the Sentul Community Health Center work area, Bogor Regency in 2023.

Suggestion

It is hoped that it can provide knowledge and information about the importance of triple elimination examination in pregnant women.

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