

# ANALYSIS OF FACTORS ASSOCIATED WITH THE COMPLIANCE OF PREGNANT WOMEN IN CONDUCTING TRIPLE ELIMINATION CHECKS (HIV, SYPHILIS AND HEPATITIS B) AT JONGAYA HEALTH CENTER MAKASSAR CITY YEAR 2023

Riska <sup>1\*</sup>, Masni <sup>2</sup>, Apik Indarty Moedjiono <sup>3</sup>, Tahir Abdullah <sup>4</sup>,  
Ridwan Mochtar Thaha <sup>5</sup> and Wahiduddin <sup>6</sup>

<sup>1</sup> Postgraduate Student, Department of Reproduction Health, Faculty of Public Health, Hasanuddin University, Indonesia. (\*Corresponding Author)

<sup>2,3,4</sup> Department of Reproduction Health, Faculty of Public Health, Hasanuddin University, Indonesia.

<sup>5</sup> Department of Health Promotion, Faculty of Public Health, Hasanuddin University, Indonesia.

<sup>6</sup> Department of Epidemiology, Faculty of Public Health, Hasanuddin University, Indonesia.

DOI: [10.5281/zenodo.11616100](https://doi.org/10.5281/zenodo.11616100)

## Abstract

**Background:** Based on data from the Makassar City Health Profile in 2019-2022, the number of pregnant women who conducted Triple Elimination checks increased by 20.41%. Looking at the amount of data based on the Makassar City Health Profile, HIV, Syphilis and Hepatitis B testing has increased every year, but has not met the targets set by the government. **Objective:** To determine the factors associated with the compliance of pregnant women in conducting HIV, syphilis and hepatitis B testing in the Jongaya Health Center Working Area, Makassar City in 2023. **Methods:** This research is a cross-sectional study design. The number of samples in this study was 163 pregnant women who visited Jongaya Health Center, with a purposive sampling technique. Bivariate data analysis using Chi-Square test and multivariate analysis using binary logistic regression. **Results:** the results of univariate analysis show that most pregnant women who are not compliant in conducting triple elimination checks are 66.9%, not working 67.5%, gestational age that is not at risk 58.3%, lack of knowledge 68.1%, negative attitudes 76.3%, parity that is not at risk 75.5%, close service distance 63.2%, no support 70.6%, and no health worker support 76.7%. The results of the bivariate analysis showed that there was no significant relationship between gestational age and parity with compliance with triple elimination checks in pregnant women and there was a relationship between occupation, knowledge, attitude, distance to health services, husband support, and health worker support with compliance with triple elimination checks in pregnant women... The results of the multivariate analysis show that of all the variables, the distance of health services is the most influential variable on compliance with Triple Elimination checks in pregnant women in the Jongaya Health Center Working Area of Makassar City in 2023. **Conclusion:** Most of the pregnant women were not compliant in performing triple elimination checks. Factors associated with compliance with triple elimination checks in pregnant women are occupation, knowledge, attitude, distance to health services, husband support and health worker support. Of all the variables that most influence the compliance of triple elimination checks in pregnant women is the distance of health services.

**Keywords:** Triple Elimination Screening, Compliance, Pregnant Women.

## INTRODUCTION

Pregnant women are one of the populations at risk of contracting HIV/AIDS, Hepatitis, and Syphilis diseases that can threaten survival, thereby increasing morbidity and mortality rates of infants, children, and toddlers. HIV, syphilis, and hepatitis infections in children are transmitted from the mother. The risk of mother-to-child transmission for HIV/AIDS, Hepatitis B and Syphilis is very high. . However, this can be prevented with simple and effective interventions such as early detection (screening) during antenatal care, early treatment, and immunization.

Triple elimination is a program that aims to achieve and sustain mother-to-child elimination of HIV/AIDS, Hepatitis B, and Syphilis in order to achieve better health for women, children, and their families through a coordinated approach. (Darma, 2022).

HIV, hepatitis and syphilis can be transmitted from mother to fetus, leading to high morbidity and mortality especially in developing countries. Transmission of these infections can be prevented easily and effectively such as by preventing transmission at reproductive age, preventing unwanted pregnancies, ANC (Ante Natal Care) screening and vaccination.

Pregnant women and newborns are vulnerable to contracting STIs. Diagnosis and management of STIs in pregnancy can reduce mortality and morbidity. (F. Chandra. K. T. P. Wulandari, 2022)..

The prevalence of HIV infection in pregnant women was 0.3%, syphilis 1.7% and hepatitis b 2.5%. Meanwhile, the risk of mother-to-child transmission for HIV is 20-45%, for syphilis 69-80%, and for hepatitis b more than 90%. The elimination launched by WHO is referred to as 3E (Triple Elimination). (UNAID, 2021).

HIV, Syphilis, and Hepatitis B An HIV-infected mother can transmit the virus to her child during pregnancy, labor, and breastfeeding. Like other sexually transmitted diseases, syphilis increases the risk of HIV by three to five times.

67% of pregnancies involving syphilis-infected pregnant women will be adversely affected, resulting in abortion, stillbirth, or congenital syphilis. Pregnancy infections or maternal infectious diseases such as syphilis and rubella are major contributors to congenital malformations in low- and middle-income countries. (Septiyani et al., 2023).

Efforts to break the chain of transmission of HIV, Syphilis and Hepatitis B infections from mother to child are through triple elimination examinations, namely programs that aim to cut off HIV, Syphilis and Hepatitis B infections from mother to baby through a coordinated approach .

The implementation of triple elimination in Indonesia is based on Permenkes No. 52 of 2017 concerning Elimination of Transmission of HIV, Syphilis and Hepatitis B from mother to child into a package in integrated antenatal services by setting a minimum indicator coverage of 95% of all pregnant women. (Kundaryanti et al., 2022).

Based on data from the Ministry of Health of the Republic of Indonesia (Kemenkes RI) in 2018 HIV testing in pregnant women was only around 13.38% (761,373) of the total number of pregnant women in Indonesia of 5,291,143 people. Hepatitis B testing in pregnant women found that 30,965 (1.88%) pregnant women were detected as HBsAg Reactive (Positive) (Director General of P2P, Ministry of Health, 2019).

During 2020 there were 2,404,754 pregnant women tested for HIV in Indonesia. Of these examinations, 6,094 (0.25%) pregnant women were HIV positive. The provinces with the highest percentage of HIV-positive pregnant women are West Papua Province at 2.56%, Riau Islands at 2.32% and Papua at 0.88% (Indonesian Ministry of Health, 2021).

Based on data from the Makassar City Health Profile in 2019-2022, it was found that the number of pregnant women who conducted Triple Elimination checks increased by 20.41%. In 2019 the number of pregnant women who conducted the examination amounted to 40.84%, in 2020 44.41%, in 2021 58.21%, in 2021 53.12% and in 2022 amounted to 60% (Makassar City Health Office, 2023).

The results of the pre-survey at Jongaya Health Center Makassar city, 2020-2022 pregnant women who performed Triple Elimination checks were only 55.70% of the 100% target. for the year 2023 in January-september showed coverage of the number of pregnant women as many as 720 and those who performed Triple elimination checks were 43.28% of the 100% target. From the data obtained, the Triple Elimination examination carried out still does not reach the estimated number of pregnant women in Jongaya Health Center Makassar City in 2023.

Based on this background, it can be seen that the percentage of pregnant women who carry out Triple Elimination checks is still low, so it is necessary to conduct research to analyze the factors associated with HIV, Syphilis and Hepatitis B Testing Compliance in pregnant women in the Jongaya Health Center working area of Makassar City in 2023.

## RESEARCH METHODS

### a. Study Design

This research used analytic observational with a Cross-Sectional study design. The location in this study is in the working area of Jongaya Health Center Makassar City in 2023.

### b. Study Participants and Sampling

The population in this study were all pregnant women in trimesters II and III who visited the Kassi Kassi Health Center in Makassar City in January-September 2023, namely 163 pregnant women with a sample of 163.

The sampling technique used purposive sampling. Samples were taken according to the inclusion and exclusion criteria using a questionnaire that had been tested for validity and reliability.

Analyzed using a correlation test with  $r$  table (0.306). Question items are said to be valid if the results of  $r$  count  $>$   $r$  table and reliable if the Cronchbach's Alpha value  $>$  (0.60). In the validity test, it was found that all question items were valid, namely  $>$  0.306. In the reliability test, it was found that all items were  $>$  0.60.

### c. Data Analysis

Using SPSS statistic version 29 by using univariate test to assess the frequency of respondents and bivariate test using Chi-Square analysis which aims to determine the relationship between independent variables and dependent variables. Multivariate test using binary logistic regression analysis to find the effect of variables on the object simultaneously.

### d. Ethical consideration

The study was conducted after obtaining written consent from each respondent after being given an explanation of the purpose of the study. Ethical approval was obtained from the Hasanuddin University Health Research Ethics Committee with ethical approval recommendation number 6533/UN4.14.1/TP.01.02/2023.

## RESULTS

a. Univariate analysis aims to obtain an overview of the research by describing the variables used in this study. The results of univariate analysis in the study are as follows

**Table 1: Distribution of Respondents Based on Characteristics at Jongaya Health Center Makassar City, Year 2023**

Characteristics	Minimum	Maximum	n	%
<b>Age</b>				
- Healthy Reproduction	17	≥24	118	72,4
- Unhealthy reproduction			45	27,6
<b>Education</b>				
- Low	-	-	112	68,7
- High			51	31,3
<b>Jobs</b>				
- Work	-	-	53	32,5
- Not Working			110	67,5
<b>Total</b>			163	100

### Primary Data

Based on table 1, it is known from the number of 163 pregnant women respondents at the jongaya health center in Makassar city, it is found that most pregnant women are between 17-31 years old as many as (72.4%), as well as pregnant women with low education as many as (68.7%) and pregnant women who do not work as many as (67.5%).

**Table 2: Distribution of Respondents Based on Variables at Jongaya Health Center Makassar City, 2023**

Research Variables	n	(%)
<b>Compliance</b>		
- Follow	54	33,1
- Non-compliant	109	66,9
<b>Jobs</b>		
- Work	53	32,5
- Not Working	110	67,5
<b>Pregnancy Age</b>		
- Risk	68	41,7
- No Risk	95	58,3
<b>Knowledge</b>		
- Enough	52	31,9
- Lack	111	68,1
<b>Attitude</b>		
- Positive	38	23,3
- Negative	125	76,3
<b>Parity</b>		
- Risk	40	24,5
- No Risk	123	75,5
<b>Health Service Distance</b>		
- Near	103	63,2
- Far	60	36,8
<b>Husband Support</b>		
- Support	48	29,4
- Not Supportive	115	70,6

<b>Health worker support</b>		
- Support	38	33,3
- Not Supportive	125	76,7
<b>Total</b>	<b>163</b>	<b>100</b>

Primary Data

Based on Table 2, most pregnant women who were not compliant in conducting triple elimination checks were 66.9%, pregnant women who did not work were 67.5%, pregnant women with non-risk gestational age were 58.3%, pregnant women with insufficient knowledge were 68.1%, pregnant women with negative attitudes were 76.3%, pregnant women with non-risk parity were 75.5%, pregnant women with close service distance were 63.2%, pregnant women with no husband support were 70.6%, and pregnant women with no health worker support were 76.7%.

- b. Bivariate analysis is carried out to determine how much the relationship between the independent variable factors and the dependent variable. The bivariate results in the form of cross tabulation analysis results between these variables can be described as follows:

**Table 3: Relationship between Occupation and Compliance of Pregnant Women in Conducting Triple Elimination Checks at Jongaya Health Center, Makassar City, 2023**

<i>Triple Elimination Check Compliance</i>							
Jobs	Compliant		Non-compliant		Total		P-Value
	n	%	n	%	n	%	
Work	24	45,3	29	54,7	53	100	0,035
Not Working	30	27,3	80	72,7	110	100	
<b>Total</b>	<b>54</b>		<b>109</b>		<b>163</b>	<b>100</b>	

Primary Data

Table 3 shows that respondents who were compliant in conducting Triple Elimination checks were more in respondents who worked, namely 45.3%, compared to respondents who did not work, namely 27.3%. Based on statistical tests using the *chi-square* test, there is a relationship between work and compliance of pregnant women in conducting *Triple Elimination checks* ( $p=0.035$ ).

**Table 4: Relationship between Gestational Age and Compliance of Pregnant Women in Conducting Triple Elimination Checks at Jongaya Health Center, Makassar City, Year 2023**

<i>Triple Elimination Check Compliance</i>							
Pregnancy Age	Compliant		Non-compliant		Total		P-Value
	n	%	n	%	n	%	
At Risk	25	36,8	43	63,2	68	100	0,506
Not at Risk	29	30,5	66	69,5	95	100	
<b>Total</b>	<b>54</b>		<b>109</b>		<b>163</b>	<b>100</b>	

Primary Data

Table 4 shows that respondents who are compliant in conducting Triple Elimination checks are more in respondents with at-risk gestational age, namely 36.8%, compared to respondents with non-risk gestational age, namely 30.5%, Based on statistical tests

using the *chi-square* test there is no relationship between gestational age and compliance of pregnant women in conducting *Triple Elimination* checks ( $p=0.506$ ).

**Table 5: Relationship between Knowledge and Compliance of Pregnant Women in Conducting *Triple Elimination* Checks at Jongaya Health Center, Makassar City, Year 2023**

<i>Triple Elimination</i> Check Compliance							
Knowledge	Compliant		Non-compliant		Total		P-Value
	n	%	n	%	n	%	
Good	25	48,1	27	51,9	52	100	0,009
Less	29	26,1	82	73,9	111	100	
<b>Total</b>	<b>54</b>		<b>109</b>		<b>163</b>	<b>100</b>	

Primary Data

Table 5 shows that respondents who are compliant in conducting *Triple Elimination* checks are more in respondents with good knowledge, namely 48.1%, compared to respondents with poor knowledge, namely 26.1%. Based on statistical tests using the *chi-square* test, there is a relationship between knowledge and compliance of pregnant women in conducting *Triple Elimination* checks ( $p=0.009$ ).

**Table 6: Relationship between Attitude and Compliance of Pregnant Women in Conducting *Triple Elimination* Checks at Jongaya Health Center, Makassar City, Year 2023**

<i>Triple Elimination</i> Check Compliance							
Attitude	Compliant		Non-compliant		Total		P-Value
	n	%	n	%	n	%	
Positive	19	50,0	19	50,0	38	100	0,020
Negative	35	28,0	90	72,0	125	100	
<b>Total</b>	<b>54</b>		<b>109</b>		<b>163</b>	<b>100</b>	

Primary Data

Table 6 shows that respondents who were compliant in conducting *Triple Elimination* checks were more in respondents with a positive attitude, namely 50.0%, compared to respondents with a negative attitude, namely 28.0%. Based on statistical tests using the *chi-square* test, there is a relationship between attitude and compliance of pregnant women in conducting *Triple Elimination* checks ( $p=0.020$ ).

**Table 7: The Relationship between Parity and Compliance of Pregnant Women in Conducting *Triple Elimination* Checks at Jongaya Health Center, Makassar City, Year 2023**

<i>Triple Elimination</i> Check Compliance							
Parity	Compliant		Non-compliant		Total		P-Value
	n	%	n	%	n	%	
At Risk	14	35,0	26	65,0	40	100	0,923
Not at Risk	40	32,5	83	67,5	123	100	
<b>Total</b>	<b>54</b>		<b>109</b>		<b>163</b>	<b>100</b>	

Primary Data

Table 7 shows that respondents who are compliant in conducting *Triple Elimination* checks are more in respondents with at-risk parity, namely 35.0%, compared to

respondents who are not at risk, namely 32.5%, Based on statistical tests using the *chi-square* test, there is no relationship between parity and compliance of pregnant women in conducting *Triple Elimination* checks ( $p=0.923$ ).

**Table 8: Relationship between Service Distance and Compliance of Pregnant Women in Conducting *Triple Elimination* Checks at Jongaya Health Center, Makassar City, Year 2023**

<i>Triple Elimination</i> Check Compliance							
Service Distance	Compliant		Non-compliant		Total		P-Value
	n	%	n	%	n	%	
Near	41	39,8	62	60,2	103	100	0,028
Deep	13	21,7	47	78,3	60	100	
<b>Total</b>	<b>54</b>		<b>109</b>		<b>163</b>	<b>100</b>	

Primary Data

Table 8 shows that respondents who were compliant in conducting *Triple Elimination* checks were more in respondents with close health service distance, namely 39.8%, compared to respondents with far health service distance, namely 21.7%. Based on statistical tests using the *chi-square* test, there is a relationship between the distance of health services and the compliance of pregnant women in conducting *Triple Elimination* checks ( $p=0.028$ ).

**Table 9: Relationship between Husband Support and Compliance of Pregnant Women in Conducting *Triple Elimination* Checks at Jongaya Health Center, Makassar City, 2023**

<i>Triple Elimination</i> Check Compliance							
Husband Support	Compliant		Non-compliant		Total		P-Value
	n	%	n	%	n	%	
Support	22	45,8%	26	54,2	48	60	0,041
Not in favor	32	27,8	83	72,2	115	100	
<b>Total</b>	<b>54</b>		<b>109</b>		<b>163</b>	<b>100</b>	

Primary Data

Table 9 shows that respondents who were compliant in conducting *Triple Elimination* checks were more in respondents with supportive husband support, namely 45.8%, compared to respondents with unsupportive husband support, namely 27.8%. Based on statistical tests using the *chi-square* test, there is a relationship between husband support and compliance of pregnant women in conducting *Triple Elimination* checks ( $p=0.041$ ).

**Table 10: Relationship between Health Worker Support and Compliance of Pregnant Women in Conducting *Triple Elimination* Checks at Jongaya Health Center, Makassar City, Year 2023**

<i>Triple Elimination</i> Check Compliance							
Health worker support	Compliant		Non-compliant		Total		P-Value
	n	%	n	%	n	%	
Support	19	50,0	19	50,0	38	100	0,020
Not in favor	35	28,0	90	72,0	125	100	
<b>Total</b>	<b>54</b>		<b>109</b>		<b>163</b>	<b>100</b>	

## Primary Data

Table 10 shows that respondents who were compliant in conducting *Triple Elimination* checks were more in respondents with supportive husband support, namely 50.0%, compared to respondents with unsupportive husband support, namely 28.8%. Based on statistical tests using the *chi-square* test, there is a relationship between the support of health workers and the compliance of pregnant women in conducting *Triple Elimination checks* ( $p=0.020$ ).

### c. Multivariate Analysis

	B	SE	WALD	Df	Sig.	Exp(B)	95% CI. for EXP(B) (Lower-upper)
<b>Jobs</b>	.889	.411	4.469	1	0.35	2.383	1.065-5.332
<b>Knowledge</b>	1.080	.406	7.068	1	.008	2.945	1.328-6.528
<b>Attitude</b>	.993	.448	4.926	1	.026	2.700	1.123-6.492
<b>Service Distance</b>	1.520	.465	10.688	1	.001	4.572	1.838-11.372
<b>Husband Support</b>	-1.054	.410	6.608	1	.010	.348	.156-778
<b>Health worker support</b>	-.899	.432	4.327	1	.038	.407	.174-.949

## Primary Data

Based on the results of the regression analysis in the table, all variables through the multivariate analysis test have a sig value  $<0.05$ , namely occupation (0.035), knowledge (0.008), attitude (0.026), distance to health services (0.001), husband support (0.010), and health worker support (0.038) associated with compliance of pregnant women in conducting triple elimination checks. When viewed from the WALD value of the six variables, the distance of health services has the largest WALD value so that the distance of health services is the main factor most associated with compliance of pregnant women in conducting triple elimination checks with a WALD value of 10.688 and a 95% CI value of *lower limit-upper limit* 1,838-11,372.

## DISCUSSION

### 1. Occupational Associations with *Triple Elimination* Screening Compliance

These results show that there is a relationship between work factors and compliance with Triple Elimination checks in pregnant women in the Jongaya Health Center Working Area of Makassar City in 2023 ( $p=0.035$ ).

The existence of a significant relationship indirectly contributes to influencing a person in making a decision, this is because work is closely related to social and cultural interaction factors and as a place for the information exchange process, and this will certainly affect a person's level of knowledge.

This study is in line with research conducted by Sabilla (2020) that there is a relationship between work and triple elimination checks in pregnant women at the Wanaja Cibitung Health Center. (Sabilla et al., 2020).

In contrast to research conducted by (Chasanah et al., 2021), which states that there is no significant relationship between pregnant women who work and those who do not work in carrying out triple elimination checks.



## 2. Relationship between gestational age and compliance with *triple elimination* examination

These results show that there is no relationship between the factor of gestational age and compliance with Triple Elimination checks in pregnant women in the Jongaya Health Center Working Area of Makassar City in 2023 ( $p=0.506$ ).

This study is in line with research conducted by Sabilla (2020) which says there is no significant relationship between gestational age and triple elimination examination in pregnant women.

The earlier the examination, the faster the treatment and the lower the risk of transmission. Pregnant women often come to do the PPIA examination at the third trimester of pregnancy for various reasons. At every level of MCH services, health workers at health care facilities are required to conduct Triple Elimination tests to all pregnant women at least once as part of routine laboratory examinations during antenatal examinations at the first visit (K1) until the time of delivery. Triple Elimination testing for HIV, Syphilis and Hepatitis B should be done at the first visit in the first trimester (Ministry of Health, 2020).

## 3. Relationship between Knowledge and Compliance with *Triple Elimination* Checkup

These results show that there is a relationship between knowledge factors and compliance with Triple Elimination checks in pregnant women in the Jongaya Health Center Working Area of Makassar City in 2023 ( $p=0.009$ ).

This study is in line with research conducted by Rini (2022) which states that there is a significant relationship between maternal knowledge and compliance in conducting triple elimination checks at the Ciracas Health Center. (Kundryanti et al., 2022).

This research is reinforced by Shamizadeh et al. (2019) which explains that a high level of knowledge (90%) will increase the participation of pregnant women to conduct triple elimination checks compared to low knowledge (68%).

## 4. Relationship between Attitude and Compliance with *Triple Elimination* Checkup

These results show that there is a relationship between attitudinal factors and compliance with Triple Elimination checks in pregnant women in the Jongaya Health Center Working Area of Makassar City in 2023 ( $p=0.020$ ).

This research is in line with research conducted by (Suganda et al., 2024), stated that there is a significant relationship between attitude and triple elimination examination in pregnant women.

However, this study is not in line with research conducted by Rini (2022), which states that there is no significant relationship to triple elimination checks, this study explains that attitudes do not affect the mother's decision to conduct triple elimination checks.

## 5. Relationship between parity and compliance with *triple elimination* examination

These results show that there is no relationship between the parity factor and compliance with the Triple Elimination examination in pregnant women in the Jongaya Health Center Working Area of Makassar City in 2023 ( $p=0.923$ ).

Gravida is the number of pregnancies currently occurring in the mother. Some terms in gravida are, primigravida is a woman who has just become pregnant for the first

time, multigravida is a woman who has become pregnant for the third and so on (more than twice) (F. C. Wulandari & Kusumaningsih, 2022).

This study is in accordance with the research of Petralina.B (2020), namely mothers who are multigravida have a high percentage, namely (52%). The gravida factor does not influence the mother's willingness to do a triple elimination examination because this is related to the mother's own awareness in preventing transmission of sexually transmitted diseases to the mother and her baby.

Experience can be gained from the experiences of others and oneself so that the experience that has been obtained can increase one's knowledge. For example, the number of children who affect a person's experience of a problem will make that person know how to solve problems from previous experiences that have been experienced so that the experience gained can be used as knowledge when getting the same problem, but each character of the experience of having children is different from the progress of social media science which always provides diverse health information, especially about Triple Elimination of pregnancy.

#### 6. Relationship between Health Service Distance and *Triple Elimination* Checkup Compliance

These results show that there is a relationship between the distance factor of health services and compliance with Triple Elimination checks in pregnant women in the Jongaya Health Center Working Area of Makassar City in 2023 ( $p=0.028$ ).

This research is in line with research conducted by (Fatimah et al., 2020), stated that there is a relationship between the distance factor of health services and triple elimination checks in pregnant women, pregnant women with a long distance from home reduce the possibility of participating in triple elimination checks.

Community affordability including distance to health facilities will influence health choices. Distance is also the second component that enables a person to utilize medical services. Distance is an enabling factor in improving health screening. The increasing distance of access to health services is one of the factors that prevent pregnant women from conducting triple elimination examinations, the distance between the pregnant women's homes and health facilities (puskesmas and pregnant women's classes) is a consideration for mothers to conduct pregnancy examinations and triple elimination examinations. The closer the health facility is to your place of residence, the greater the chance of getting PMTCT services.

#### 7. The Relationship between Health Husband Support and *Triple Elimination* Checkup Compliance

These results show that there is a relationship between the husband's support factor and compliance with the Triple Elimination examination in pregnant women in the Jongaya Health Center Working Area of Makassar City in 2023 ( $p=0.041$ ).

This research is in line with research conducted by (Ramayanti et al., 2022), stated that there is a significant relationship between husband support and the behavior of pregnant women in conducting triple elimination checks at the Nani Maternity Clinic.

Husbands have a significant role in determining the health status of mothers, because husbands have a role as motivators and policy makers in the household, pregnant women really need support from a husband, good husband support can provide good motivation for mothers to do pregnancy checks. With the husband's encouragement,

pregnant women will feel cared for, loved, and accompanied which can make mothers feel calmer and safer. The role of husbands in this study in supporting pregnant women to conduct HIV testing is one of them by driving to ANC services at the nearest health center. The husband's role also includes accompanying during HIV testing at ANC services, discussing HIV with his wife and health workers.

#### 8. Relationship between Health Worker Support and *Triple Elimination* Checkup Compliance

These results show that there is a relationship between health worker support factors and compliance with Triple Elimination checks in pregnant women in the Jongaya Health Center Working Area of Makassar City in 2023 ( $p=0.020$ ).

The results of this study are in line with Chairani's research (2019) entitled health worker support for HIV testing behavior in pregnant women. The results showed that health workers provide support to pregnant women to take HIV tests. health worker support provided in the form of individual counseling to pregnant women and providing counseling at posyandu and pregnant women's classes.

Health worker support has an influence on the utilization of HIV testing in integrated ANC for pregnant women, pregnant women who get good health support have a 4,000 times greater chance of utilizing HIV testing in integrated ANC than pregnant women with less health support (fauziani, 2021).

#### 1. Research Limitations

a. The limitation of this study is that pregnant women are difficult to meet.

#### 2. Advice

a) For the Health Center

Increase public knowledge in the field of health, especially information about Triple Elimination testing and how HIV, Syphilis and Hepatitis B are transmitted by providing education such as counseling and other media regarding Triple Elimination (HIV, Syphilis and Hepatitis B).

b) For Pregnant Women

It is recommended for pregnant women to increase compliance with Triple Elimination checks and attend pregnant women's classes every month so that they can get more and updated information, especially information about Triple Elimination checks.

c) For Future Researchers

It is hoped that future researchers will develop this research both in terms of adding more varied variables and the number of research samples so that the data obtained can better present the research results.

### CONCLUSION

Most pregnant women are not yet compliant in performing Triple Elimination checks. The study found significant relationships between compliance with Triple Elimination Testing and several factors, including knowledge, attitude, occupation, distance from health services, husband support, and health worker support. However, no significant associations were found between gestational age and compliance, nor between parity

and compliance. The most influential factor affecting compliance was the distance from health services, with a notable influence score of 10.688.

These findings highlight the importance of improving accessibility and support for pregnant women to enhance compliance with Triple Elimination Testing. Efforts should focus on increasing knowledge and positive attitudes toward these tests, as well as providing robust support from husbands and health workers. Additionally, addressing the challenge of distance from health services is crucial, as it has the most substantial impact on whether pregnant women comply with the necessary checks in the Jongaya Health Center Working Area of Makassar City in 2023.

## Reference

- 1) Chasanah, S., Dewanti, L., & Anis, W. (2021). The Influence of Internal Factors of Pregnant Women on Triple Elimination Examination. *Indonesian Midwifery and Health Sciences Journal*, 5(1), 88-102. <https://doi.org/10.20473/imhsj.v5i1.2021.88-102>
- 2) Chairani. (2019). Human Resource Management Analysis (Case Study of Hospital Nurse Performance). Yogyakarta: Zifatama
- 3) Darma Sari, S., & Anggeriani, R. (2022). *Triple Elimination Examination To Prevent Sexually Transmitted Diseases In Pregnant Women In The Working Area Of Pkm Saboking-King Palembang*. <http://jurnal.globalhealthsciencegroup.com/index.php/JPM>
- 4) Fatimah, M., Respati, S. H., & Pamungkasari, E. P. (2020). Determinants of Pregnant Women Participation on Triple Elimination of HIV, Syphilis, and Hepatitis B, in Semarang. *Journal of Health Promotion and Behavior*, 5(2), 124-134. <https://doi.org/10.26911/thejhp.2020.05.02.07>
- 5) Fauziani, e. a. (2021). factors influencing pregnant women in HIV testing at IDI Rayeuk health center, east aceh district in 2020. *journal of healthcare technology and medicine*.
- 6) Indonesian Ministry of Health. (2020). *South Sulawesi Riskesdas Report 2020*. Indonesian Ministry of Health
- 7) Indonesian Ministry of Health. (2021). Indonesia Health Profile 2020. In *Ministry of the Republic of Indonesia*
- 8) Kundaryanti, R., Faculty, A. S., Health, I., National, U., Sawo, J., No, M., 61, R. W., & Sunday, P. B. P. (2022). *Factors Associated With Tri Elimination Examination In Pregnant Women*.
- 9) Petralina, B. 2020. Determinants of Pregnant Women's Knowledge Level about Triple Elimination Examination. *Journal of Health*. Volume V No. 2, 85-91
- 10) Makassar City Health Profile. (2023). *Annual Report on HIV/AIDS in Pregnant Women 2023*.
- 11) Makassar City Health Profile. (2023). *Annual Report on Hepatitis B in Pregnant Women 2023*.
- 12) Makassar City Health Profile. (2023). *Annual Report on Syphilis in Pregnant Women 2023*.
- 13) Ramayanti, E., Sulistyoningtyas, S., S1, P., 'aisyiyah University, K., & Corresponding, Y. (2022). *The Factors Affecting The Behavior Of Pregnant Women In Conducting Triple Elimination Examinations During The Pandemic at Nani Rusnani Maternity Clinic*. <http://jurnal.iakmikudus.org/index.php/mjhs>
- 14) Sabilla, F. F., Agustina, T., Lestari, N., & Raharja, S. (2020). The Relationship Between Education Level And Age Of Pregnant Women On The Behavior Of Triple Elimination Check-Up Visits At Puskesmas Sumberlawang Sragen. *Indonesian Midwifery Journal*, 11(2), 93. <https://doi.org/10.36419/jkebin.v11i2.377>
- 15) Septiyani, R., Karlina, I., Dua, M. A., Program, B., Midwifery, S. S., Health, I., & Bandung, R. (2023). Factors Related to Triple Elimination Examination in Pregnant Women at Cibeber Health Center Cimahi City, 2022. *Journal of Biostatistics and Demographic Dynamic*, 3. <https://doi.org/10.19184/biograph-i.v3i1>

- 16) Shamizadeh T, Jahangiry L, Sarbakhsh P, Ponnet K (2019). A social cognitive theory-based intervention to increase physical activity among prediabetic rural communities; A cluster randomized controlled trial. *BMC*. 20(1): 1-10. <https://doi.org/10.1186/s13063-019-3220-z>.
- 17) Suganda, Y., Silvia, E., & Rita Aninora, N. (2024). The Effect Of Providing Education About Triple Elimination On The Knowledge And Attitudes Of Pregnant Women At Puskesmas Pasar Usang. *Encyclopedia of Journa*, 6(2), 1-8. <http://jurnal.ensiklopediaku.org>
- 18) Wulandari, F. C., & Kusumaningsih, T. P. (2022). Factors Associated With Triple Elimination Checks In Pregnant Women During The Covid-19 Pandemic At Purworejo Health Center. *Journal of Health Karya Husada*, 10(2), 1-9.
- 19) Wulandari, F. Chandra. K. T. P. (2022). Factors Associated With Triple Elimination Checks In Pregnant Women During The Covid-19 Pandemic At Purworejo Health Center. *Journal of Health Karya Husada*, 10 (2).