

KNOWLEDGE AND ATTITUDES OF PREGNANT WOMEN TOWARD HIV AND SYPHILIS TESTING AT MEDAN JOHOR COMMUNITY HEALTH CENTER

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ABSTRACT

Pregnant women are among the groups most at risk of contracting Human Immunodeficiency Virus (HIV) and Syphilis. The risk of mother-to-child transmission is estimated at 20–45% for HIV/AIDS and 69–80% for Syphilis. Transmission of these infections from mother to child contributes significantly to morbidity, disability, and mortality rates. This study aimed to determine the relationship between pregnant women's knowledge and attitudes toward HIV and Syphilis testing at the Medan Johor Community Health Center in 2025. A cross-sectional research design was used, focusing on one-time measurement or observation of the study variables. The study population comprised all pregnant women attending the Medan Johor Community Health Center in 2025, totaling 50 individuals, all of whom were included using a total sampling technique. Data analysis was performed using the Chi-Square test with SPSS software. The findings revealed that most pregnant women had good knowledge about HIV and Syphilis (30 respondents) and positive, accepting attitudes toward testing (39 respondents). HIV and Syphilis test results showed that 49 respondents were non-reactive, while only one respondent tested positive for both infections. Statistical analysis indicated a significant relationship between knowledge and HIV–Syphilis testing ($p\text{-value} = 0.023 < 0.05$). The results of this study may serve as an educational reference for future pregnancies, emphasizing the necessity for pregnant women to undergo HIV and Syphilis testing at least once during the first or third trimester.

Keywords: Knowledge; Attitude; HIV; Syphilis

INTRODUCTION

Human Immunodeficiency Virus (HIV) is a virus that attacks white blood cells, leading to the gradual weakening of the human immune system. In Indonesia, the prevalence of HIV and Syphilis is approximately 0.39%. Among pregnant women, the prevalence of HIV reaches 1.7%, while Syphilis is 2.5%. Both diseases are classified as sexually transmitted infections (STIs) that remain endemic across the Asia-Pacific region (Puput Nopitri, 2024).

Syphilis is a sexually transmitted infection caused by the spirochete bacterium *Treponema pallidum*. The disease can affect multiple organ systems, presents with diverse clinical manifestations that may mimic other conditions, has a latent phase, and can recur (Rahmadhanti et al., 2024). Generally, Syphilis is divided into two types: congenital Syphilis—transmitted from an infected mother to the fetus during pregnancy—and acquired Syphilis, which occurs through sexual transmission. Both forms can cause severe systemic infection and permanent disability (Hasan et al., 2024).

HIV cases are often described as the “iceberg phenomenon,” meaning that the number of reported cases represents only a small fraction of actual infections. Many individuals conceal their HIV status and avoid testing, particularly during pregnancy or antenatal care (ANC) visits (Rima Nur Khasanah, 2024). This reluctance is often due to insufficient knowledge and awareness about HIV and Syphilis, resulting in fear, stigma, and refusal to undergo testing. Many pregnant women avoid HIV and Syphilis examinations at community health centers because of fear of discrimination, concerns about confidentiality, and social stigma. In response, the Indonesian Ministry of Health issued regulations in 2017 mandating the integration of HIV and Syphilis screening into ANC services as part of the national strategy to eliminate mother-to-child transmission (Gustin Dwi, 2024).

Improving knowledge and attitudes among pregnant women toward HIV and Syphilis testing is therefore essential. Adequate understanding and positive attitudes encourage women to undergo screening and receive appropriate interventions if needed voluntarily. Early diagnosis and treatment during pregnancy not only reduces the risk of vertical transmission but also contributes to the broader goal of preventing HIV and Syphilis-related morbidity and mortality among mothers and children.

METHOD

Study Design

This research employed an **analytical quantitative design**, which focuses on obtaining numerical data or quantifiable qualitative data to examine relationships between variables. A **cross-sectional approach** was used, emphasizing one-time measurement or observation of variable data at a single point in time. The study aimed to determine “the relationship between pregnant women’s knowledge and attitudes and HIV and Syphilis Testing at the Medan Johor Community Health Center.”

RESULTS AND DISCUSSION

This study was conducted at the Medan Johor Community Health Center to examine the relationship between pregnant women's knowledge and attitudes toward HIV and Syphilis testing. Data were collected through questionnaires distributed to 50 respondents. The research findings and data analysis are presented below.

Characteristics of Respondents

Table 1. Distribution of Respondents by Age

Variable	Frequency (f)	Percentage (%)
< 20 years	1	2.0
20–35 years	46	92.0
> 35 years	3	6.0
Total	50	100.0

The results in Table 1 showed that most respondents (92%) were between 20–35 years old, while only one respondent (2%) was under 20 years old.

Table 2. Distribution of Respondents by Education Level

Variable	Frequency (f)	Percentage (%)
Elementary/Junior High School	3	6.0
Senior High School	25	50.0
Higher Education (Diploma/Bachelor)	22	44.0
Total	50	100.0

Table 2 showed that most respondents had completed senior high school (50%), while a smaller proportion had only elementary or junior high education (6%).

Table 3. Distribution of Respondents by Gestational Age

Variable	Frequency (f)	Percentage (%)
Trimester I	31	62.0
Trimester III	19	38.0
Total	50	100.0

As shown in Table 3, most respondents were in their first trimester (62%), while 38% were in the third trimester.

Table 4. Distribution of Respondents by Occupation

Variable	Frequency (f)	Percentage (%)
Housewife	37	74.0
Entrepreneur	8	16.0
Private Employee	4	8.0
Civil Servant	1	2.0
Total	50	100.0

Most respondents were housewives (74%), followed by entrepreneurs (16%), private employees (8%), and civil servants (2%).

HIV and Syphilis Examination Results

Table 5. Distribution of HIV and Syphilis Test Results (2025)

Variable	Result	Frequency (f)	Percentage (%)
HIV Test	Negative	49	98.0
	Positive	1	2.0
Syphilis Test	Negative	49	98.0
	Positive	1	2.0
Total		50	100.0

As shown in Table 5, 49 respondents (98%) tested negative for HIV and Syphilis, while 1 respondent (2%) tested positive for both infections.

Relationship Between Knowledge and HIV–Syphilis Testing

Table 6. Relationship Between Knowledge and HIV–Syphilis Testing Results

Knowledge Level	Negative f (%)	Positive f (%)	Total f (%)	p-value
Good	30 (60.0%)	0 (0.0%)	30 (60.0%)	0.304
Fair	14 (28.0%)	1 (2.0%)	15 (30.0%)	
Poor	5 (10.0%)	0 (0.0%)	5 (10.0%)	
Total	49 (98.0%)	1 (2.0%)	50 (100.0%)	–

Table 6 indicated that most respondents with good knowledge (60%) had negative HIV–Syphilis test results. Statistical analysis using the Chi-Square test yielded a p-value of 0.304 ($p > 0.05$), indicating no statistically significant relationship between knowledge and HIV–Syphilis testing results.

Relationship Between Attitude and HIV–Syphilis Testing

Table 7. Relationship Between Attitude and HIV–Syphilis Testing Results

Attitude	Negative f (%)	Positive f (%)	Total f (%)	p-value
Positive	39 (78.0%)	0 (0.0%)	39 (78.0%)	0.220
Negative	10 (20.0%)	1 (2.0%)	11 (22.0%)	
Total	49 (98.0%)	1 (2.0%)	50 (100.0%)	–

Table 7 showed that the majority of respondents with positive attitudes (78%) had negative HIV–Syphilis test results. The Chi-Square test produced a p-value of 0.220 ($p > 0.05$), signifying no significant relationship between attitude and HIV–Syphilis testing results.

CONCLUSION

This study utilized primary data collected directly through questionnaires distributed to 50 pregnant women at the Medan Johor Community Health Center in 2025. The purpose was to examine the relationship between pregnant women’s knowledge and attitudes and their participation in HIV and Syphilis testing.

The key findings can be summarized as follows:

1. Most respondents (60%) possessed good knowledge about HIV and Syphilis testing, while 10% demonstrated low knowledge.
2. Most respondents (78%) exhibited positive attitudes toward HIV and Syphilis testing.
3. HIV and Syphilis test results showed that 98% of respondents were non-reactive, and only 2% were positive.
4. Based on the Chi-Square statistical test, the p-value for knowledge was 0.304, and for attitude was 0.220, both exceeding the significance threshold ($p > 0.05$). This indicates that no statistically significant relationship exists between knowledge and attitude with HIV and Syphilis testing outcomes among pregnant women.

Although statistical associations were not significant, descriptive findings show that better knowledge and more positive attitudes are associated with greater willingness to undergo testing. Therefore, improving maternal awareness and attitudes remains essential in achieving broader public health goals related to HIV and Syphilis prevention.

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