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Health Literacy of Pregnant Women about Screening for HIV, Syphilis and Hepatitis B in Jayapura City

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Abstract

Background: *Early HIV, Syphilis and Hepatitis B screening literacy must be understood by women of childbearing age. If the mother does not know this, it will have an impact on sexually transmitted diseases. The aim of the study was to analyze factors related to screening of pregnant women.*

Method: *Quantitative cross-sectional study, conducted at 13 Community Health Centers for two months. 100 pregnant women using proportional stratified sampling, questionnaire instrument. Chisquare analysis.*

Results: *Age (p value = 0.027), income (p value = 0.011), attitude (p value = 0.000), PPIA (p value = 0.005) and counseling (p value = 0.026) have a significant relationship (p value < 0, 05) with the mother's level of knowledge about screening. Education (p value = 0.634), employment (p value = 0.719), parity (p value = 0.938), antenatal care (p value = 0.191), access to information (p value = 0.323) have no significant relationship (p value >0 .05).*

Keywords: Literacy, Screening, HIV, Hep B, Syphilis, Pregnant Women

Introduction

Maternal health is one of the priorities in efforts to develop Indonesia's human resources. In his "Indonesian Vision" speech, President Joko Widodo said that one of the priorities during his administration was to develop human resources with a focus on the health of pregnant women, babies, toddlers, school-age children, professional education and talent management agents. Efforts to improve maternal health are an investment in the future [1]. This is related to the role of mothers as producers of the nation's generations, so mothers must have sufficient knowledge supported by other factors. Public opinion confirms that the presence of adequate knowledge motivates individuals to behave healthily. This opinion refers to the knowledge-action behavior model. As quoted in the National PPIA Guidelines (Ministry of Health of the Republic of Indonesia 2012) in (BKKBN Representative Papua Province 2021) that HIV transmission from HIV-infected mothers to their children also tends to increase with increasing number of days [2]. HIV-positive mothers are infected both through their sexual partners and through HIV transmission. Although the rate of HIV infection and transmission from mother to child is still limited, the number of pregnant women infected with HIV is increasing. HIV prevalence in pregnant women is expected to decrease from 0.38% in 2012 to 0.9% in 2016, and the number of HIV-positive pregnant women seeking IPC services has also increased, from 13,189 people in 2012 to 16,191. In 2016, the number Children under 15 years of age infected with HIV from their mothers at birth or while breastfeeding will increase from 4,361 in 2012 to 5,565 in 2016, associated with an increase in infant deaths due to AIDS.

Human Immunodeficiency Virus (HIV) infection and Acquired Immunodeficiency Syndrome (AIDS) are major challenges in achieving the Millennium Development Goals (MDGs) in Goal 6. These diseases can have a negative impact, not only on public health but also throughout the region. Based on data from the Directorate General of P2P from the 2019 HIV/AIDS and STI Information System (SIHA), the fourth quarter report shows that HIV and AIDS cases are higher in men than women [3]. In 2019, 64.50% of HIV infections were men, while 68.60% of AIDS cases were men. This is in accordance with the results of HIV reports based on gender from 2008 to 2019, where men are more often affected than women. (Indonesian Ministry of Health Data and Information Center 2020) Pregnant women's knowledge of modes of transmission is important to adapt the program to their needs. This study aims to assess knowledge about human immunodeficiency virus (HIV), hepatitis B virus (HBV) and hepatitis C virus (HCV) in pregnant women in Nampula - Mozambique, this is an area with a high risk of sexually transmitted infections. During pregnant women's first prenatal visit, they were invited to participate and data collection was carried out by trained nurses at six community health facilities. Knowledge about how HIV is transmitted is high but there are still misconceptions. However, knowledge about how HBV and HCV are transmitted is very limited. There is a significant relationship between literacy rates and socioeconomic levels, making women's education and empowerment a key element in the overall infection control strategy. Congenital syphilis is of concern because the number of babies born with this disease in the United States has increased drastically [4]. Cases of congenital syphilis nearly quadrupled between 2015 and 2019. Public health experts across the country are deeply concerned about the increasing number of congenital syphilis cases. Based on the latest data from the Papua Provincial Health Service, quarter III 30 September 2020, in Papua there are a total of 44,998 people with HIV/AIDS (PLWHA), of which 17,731 people suffer from HIV and 27,267 people suffer from HIV/AIDS [5]. The level of spread of HIV/AIDS according to districts/cities, looking at these figures, Jayapura city ranks second out of 6,991 HIV-AIDS cases in Papua. (Papua Provincial Health Service 2021) Based on data from the Papua Provincial Health Service, as of March 31 2021, the number of people living with HIV/AIDS in Papua was 46,193 people, of whom 18,394 people were HIV positive and 27,799 people were AIDS positive. The level of spread of HIV/AIDS in Regency/City based on data, Jayapura City ranks second in HIV/AIDS cases with 7,391 people after Nabire Regency with a total of 8,640 cases, 3,442 HIV cases and 5,198 AIDS infections in Papua.

I think this research is unique and interesting, because it has to accommodate pregnant women with different characteristics. On the other hand, we have to work together with coordinating midwives from 13 Community Health Centers to secure data on pregnant women. Midwives are very cooperative in providing information on the implementation of HIV/AIDS, syphilis and hepatitis B screening in antenatal care.

Research Methods

This research is a descriptive correlation study with a cross sectional approach to obtain risk factors related to pregnant women's knowledge about HIV AIDS, Syphilis and Hepatitis B in 13 Jayapura City Health Centers [6]. The research population was taken from the proportion of pure K1 pregnant women for the period January to April 2021 with a total of 2,206 pregnant women from 13 Community Health Centers. To obtain a minimum sample size, researchers used the Slovin formula with a precision value of 10 percent to obtain a sample of 100 pregnant women. The sampling technique was stratified random sampling where I divided the respondents into 13 health centers, including 10 people from North Japura Health Center, 6 people from Tanjung Ria, 4 people from Imbi, 8 people from Hamadi, 6 people from Elly Uyo, 7 people from Entrop Twano, 21 people from Abepura, and Abepantai 7 people, Waena 10 people, Kota Raja 10 people, Hebeybhulu Yoka 4 people, Koya Barat 6 people and Skow Mabo 1 person so that the number of samples obtained was 100 pregnant women.

The data collection method uses a questionnaire as a data collection tool including a number of questions based on research variables including maternal age, maternal education level, maternal occupation, income, income, parity, gestational age, access to information sources, knowledge, attitudes, PPIA and counseling. This research was also supported by the use of data on pregnant women from the local health center.

Data analysis used the chi-square statistical test to describe univariate and bivariate results to read the significance of the correlation of several independent variables with the dependent variable, namely the determinants of knowledge about HIV/AIDS, syphilis and hepatitis B.

Results and Discussion

Community Health Center is a health service facility that carries out public health efforts and first-level individual health efforts, by prioritizing promotive and preventive efforts to achieve the highest level of public health in its working area (No.75, n.d.) Jayapura City consists of 5 (five) sub-districts and each sub-district is divided into several first-level health service units, namely community health centers as the spearhead of basic health services for the community at the lower level. In Muara Tami sub-district there are 2 health centers, namely West Koya Health Center and Skow Mabo Health Center. Abepura Regency has 4 health centers, namely Abepura Health Center, Abepantai Health Center, Waena Health Center, and Kota Raja Health Center. In Heram Regency there is 1 Community Health Center, namely the Hebeybhulu Yoka Community Health Center. In South Jayapura Regency there are 3 Community Health Centers, namely Hamadi Community Health Center, Elly Uyo Community Health Center, and Twano Community Health Center. In North Jayapura Regency there are 3 health centers, namely North Jayapura Health Center, Tanjung Ria Health Center, and Imbi Health Center.

Results of Univariate Analysis of Respondent Characteristics

Table 1: Characteristics of Respondents in Jayapura City

Characteristics	sample	percent
Age		
≤19 year	13	13
20 - 24 year	49	49
25 – 29 year	19	19
30 – 34 year	12	12
≥ 35 year	7	7
amount	100	100
Education		
No School	1	1
Elementary School	3	3
Junior High School	11	11
High school or vocational high school	62	62
College	23	23
amount	100	100
Work		
House wife	84	84
Government employees	5	5
Businessman	4	4
Private employees	4	4
Trader	2	2
Laborer	1	1
amount	100	100
Income		
<1.000.000	35	35
1.000.000-2.000.000	23	23
2.100.000-3.000.000	21	21
>3.000.000	21	21
amount	100	100
Parity		
Primipara	28	28
Multiparous	68	68
Grandemultiparous	4	4
amount	100	100
Ante Natal Care (ANC)		
Trimester 1 (1 s.d 12 week)	36	36
Trimester 2 (13 s.d 27 week)	38	38
Trimester 3 (28 s.d 41 week)	26	26
amount	100	100
Knowledge		
Not Enough	51	51
Good	49	49
amount	100	100

Table 1 shows that of the 100 respondents, 49 people aged 20-24 years were dominated (49 percent), the highest maternal education was in SMA/SMK, 62 people (62 percent), most of the pregnant women took part in taking care of the household, 84 people. (84 percent), family income in a month < 1,000,000 was 35 people (35 percent), multiparity parity was 68 people (68 percent), and pregnant women who had ANC checks on average in the second trimester were 38 people. (38 percent).

Results of Bivariate Analysis of Research Variables

Table 2: Bivariate analysis of determinants and screening of respondents in Jayapura City

variable	Knowledge of HIV/AIDS, Syphilis & Hepatitis				Amount		p-value	CI (Upper- Lower)
	Not Enough		Good		n	%		
	n	%	n	%				
Age								
Teenager	37	60,7	24	39,9	61	100	0,027	2,753 (1,198-6,325)
Mature	14	35,9	25	64,1	39	100		
Education								
Low	9	60,0	6	40,0	15	100	0,634	1,536
Tall	42	49,4	43	50,6	85	100		(0,503-4,693)
Work								
Doesn't work	44	52,4	40	47,6	84	100	0,719	1,414
								(0,482-4,150)
Work	7	43,8	9	56,3	16	100		
Income								
Low	46	58,2	33	41,8	79	100	0,011	4,461
Tall	5	23,8	16	76,2	21	100		(1,486-13,390)
Parity								
Risky	17	53,1	15	46,9	32	100	0,938	1,133
Not Risky	34	50,0	34	50,0	68	100		(0,489-2,629)
Antenatal Care								
Risky	29	45,3	35	54,7	64	100	0,191	0,527
Not Risky	22	61,1	14	38,9	36	100		(0,230-1,211)
Access								
information								
Never	17	60,7	11	39,3	28	100	0,323	1,727
								(0,710-4,199)
Once	34	47,2	38	52,8	72	100		
Maternal								
attitudes								
regarding HIV								
testing, Syphilis								
Hep B								
Does not support	23	92,0	2	8,0	25	100	0,000	19,304
Support	28	37,3	47	62,7	75	100		(4,227-88,152)
PPIA								
Do not understand	25	71,4	10	28,6	35	100	0,005	3,750
								(1,547-9,090)
understand	26	40,0	39	60,0	65	100		
Counseling								
Don't agree	38	60,3	25	39,7	63	100	0,026	2,806
Agree	13	35,1	24	64,9	37	100		(1,208-6,518)

Table 2 shows that of the 61 teenage respondents with good knowledge, 37 people (60.7%) and 24 people (39.3%) had good knowledge. Of the 39 adults, 14 (35.9%) had poor knowledge and 25 (64.1%) had good knowledge. The age variable with the knowledge variable obtained a value of p = 0.027 < α (0.05). Statistically there is a significant relationship between age and knowledge of pregnant women. The RP value is 2.753 (95% CI: 1.198 – 6.325), so it can be interpreted that teenage pregnant women have a 2.753 times chance of having low knowledge about HIV/AIDS, Syphilis and Hepatitis B compared to adult pregnant women.

The low education level of 15 respondents had poor knowledge, 9 people (60.0%) and 6 people (40.0%) had good knowledge. Of the 85 highly educated respondents with poor knowledge, 42 people (49.4%) and respondents with good knowledge were 43 people (50.6%). The maternal education variable and the knowledge variable obtained a p value = 0.634 > α (0.05), meaning that there is no significant relationship between education and pregnant women's knowledge about HIV/AIDS, Syphilis and Hepatitis B. The RP value is 1.536 (95% CI: 0.503 – 4.693) hen it can be interpreted that mothers with low education have a 1.536 times chance of having low knowledge compared to mothers with high education.

There were 44 mothers who did not work with poor knowledge and 40 people (47.6%) who worked with good knowledge. There were 7 mothers who worked with poor knowledge (43.8%) and 9 respondents who had good knowledge (56.3%). The maternal occupation variable with the knowledge variable obtained a p value = 0.719 > α (0.05). There was no significant relationship between maternal occupation and pregnant women's knowledge about HIV/AIDS, Syphilis and Hepatitis B. The RP value was 1.414 (95% CI: 0.482 – 4.150) so it can be interpreted that pregnant women without work have a 1.414 times chance of having low knowledge compared to those who work.

Mothers with low incomes had poor knowledge as many as 46 people (58.2%) and 33 people (41.8%) had good knowledge. Meanwhile, there were 5 mothers who had high incomes and less knowledge (23.8%) and 16 people (76.2%) had good knowledge. The maternal income variable and the knowledge variable obtained a p value = 0.011 < α (0.05), meaning that statistically there is a significant relationship between maternal income and pregnant women's knowledge about HIV/AIDS, Syphilis and Hepatitis B. The RP value is 4.461 (95 % CI: 1.486: 13.390) so it can be interpreted that pregnant women with low income have a 4.461 times chance of having low knowledge compared to those with high income. 17 people (53.1%) of pregnant women with risk parity had poor knowledge and 15 people (46.9%) had good knowledge. Meanwhile, 34 mothers (50.0%) were not at risk with poor knowledge and 34 (50.0%) had good knowledge. The maternal parity variable with the knowledge variable obtained a value of p = 0.938 > α (0.05). This shows that statistically there is no significant relationship between parity and knowledge of pregnant women. The RP value is 1.133 (95% CI: 0.489 - 2.629), so it can be interpreted that the parity variable is a protective factor in increasing maternal knowledge.

Pregnant women with pregnancy check in the second and third trimesters are at risk of having poor knowledge as many as 29 people (45.3%) and 35 people (54.7%) have good knowledge. Meanwhile, there were 22 mothers who had ANC for the first time in the first trimester with poor knowledge and 14 people (38.9%) with good knowledge. The ANC variable with the knowledge variable obtained a p value = 0.191 > α (0.05), meaning that there was no significant relationship between pregnancy checks and maternal knowledge. The RP value is 0.527 (95% CI: 0.230 - 1.211) so It can be interpreted that the pregnancy check variable is a protective factor in increasing maternal knowledge.

Respondents who had never accessed information about HIV, Syphilis and Hepatitis B had poor knowledge as many as 17 people (60.7%) and 11 people (39.3%) had good knowledge. 34 mothers (47.2%) had poor knowledge and 38 mothers (52.8%) had good knowledge. The relationship test value is p = 0.323 > α (0.05), meaning that statistically there is no significant relationship between access to information and knowledge of pregnant women. The RP value is 1.727 (95% CI: 0.710 - 4.199), so it can be interpreted that mothers who have never had access to information have a 1.727 times chance of having low knowledge compared to mothers who have had access to information.

The attitude of pregnant women does not support testing for HIV, Syphilis and Hepatitis B with 23 people (92.0%) having poor knowledge and 2 people (8.0%) having good knowledge. 28 mothers (37.3%) with a supportive attitude towards testing had poor knowledge and 47 people (62.7%) had good knowledge. The relationship test value is p = 0.000 < α (0.05), meaning that statistically there is a significant relationship between attitude and knowledge. The RP value is 19.304 (95% CI: 4.227-88.152), so it can be interpreted that the attitude of a mother who does not support the test is 19.304 times more likely to have low knowledge compared to the attitude of a mother who supports it.

There were 25 mothers (71.4%) who did not understand PPIA services at the Community Health Center and 10 people (28.6%) had good knowledge. There were 26 mothers (40.0%) who understood PPIA services with poor knowledge and 39 people (60.0%) had good knowledge. The relationship test value is p = 0.005 < α (0.05), meaning there is a significant relationship between PPIA services and knowledge. The RP value is 3.750 (95% CI: 1.547 - 9.090), so it can be interpreted that mothers who do not understand PPIA services have a 3.750 times chance of having low knowledge compared to mothers who understand PPIA services. 38 people (60.3%) answered that they did not agree to do counseling, and 25 people (39.7%) had good knowledge. Mothers answered that they agreed to do counseling with poor knowledge as many as 13 people (35.1%), and 24 people (64.9%) had good knowledge. The relationship test value is p = 0.026 < α (0.05), meaning there is a significant relationship between counseling and knowledge. The RP value is 2.806 (95% CI: 1.208-6.518), so it can be interpreted that mothers who do not agree to counseling have a 2.806 times chance of having low knowledge compared to mothers who agree to counseling.

Discussion

The results of the study showed that out of 100 pregnant women respondents answered that HIV could be transmitted by and through insects (mosquitoes) as much as (73%), HIV could be transmitted by sharing a pillow with PLWHA as much as (61%), transmission could also occur if use eating utensils together with

PLWHA as much as (67%), transmission can occur if we shake hands with PLWHA as many as (64%), transmission can occur if exposed to PLWHA's sweat as much as (71%), transmission can also occur if we hug PLWHA as many as (73%), and swimming together as many as (73%).

Mothers' knowledge about prevention efforts is still low, as can be seen from the results that in order for someone to avoid HIV, they do not have to pay attention to blood donation products that have undergone HIV, Syphilis and Hepatitis B examination/ screening results as much as (52%), and do not pay attention to the use of sterile syringes. as many as (69%), do not use condoms as a contraceptive as much as (54%).

Mothers' understanding of PPIA services is still low, that is, efforts to avoid unwanted pregnancies in women who are HIV positive are (56%), mothers said that there is no need to make efforts to prevent HIV transmission through caesarean section in infected mothers, able to reduce the risk of children being infected with HIV from the mother. as much as (63%). Mothers said that counseling was not necessary at the beginning of the examination (63%).

Understanding of pregnant women is still low, they do not know that Hepatitis B is an infectious disease in the form of liver inflammation caused by the Hepatitis B virus (HBV) as much as (62%), pregnant women do not know that someone has been diagnosed with Hepatitis B, if a test (serology) is carried out in the laboratory and declared reactive HBsAg as much as (51%). Hepatitis B cannot be transmitted through blood contact with sufferers (60%), cannot be transmitted through semen and vaginal fluids (62%), through the use of contaminated syringes (58%), ear piercing (83%), blood transfusions (60%) and not transmitted from infected mother to baby during delivery (66%). Mothers do not know the cause of syphilis transmission (62%) and syphilis infection cannot be transmitted from mother to fetus while in the womb (56%).

Quoted from Herek GM, Capitanio JP, Widaman KF (2002) and Djoerban Z. (1999) in (Zahroh Shaluhiyah, Syamsulhuda Budi Musthofa 2015) that knowledge about HIV/AIDS greatly influences a person's attitude towards HIV/AIDS sufferers. The results of this research are in line with research conducted by with the title Determinants of HIV Testing Behavior in Pregnant Women, that in general, mothers' knowledge about HIV is good, but there are several crucial things that respondents still don't know [3]. This can be seen from the respondents' answers in the questionnaire, 66% of respondents did not know that HIV could be transmitted through the birth process, 65% of respondents also did not know that a pregnant woman infected with the HIV virus should give birth surgically, 90.7% thought that HIV status in pregnant women it is enough to know with a pregnancy examination alone.

All pregnant women should be tested for syphilis at their first prenatal visit, ideally during the first trimester of pregnancy. The earlier syphilis is diagnosed and treated during pregnancy, the greater the chance that congenital syphilis and its complications (such as stillbirth) can be prevented in the baby. Penicillin G is effective in preventing mother-to-fetus transmission, as well as treating fetal and maternal infections. Women who live in areas of high syphilis morbidity or who have a personal or partner risk for syphilis should be screened again early in the third trimester and at delivery. (CDC 2021) The level of education and knowledge is one of the predisposing factors for behavior, according to the theory of Green L, 1980. Ideally, the higher a person's education and knowledge, the more it will influence positive behavior. In other words, health promotion seeks to ensure that the behavior of individuals, groups or communities has a positive influence on the maintenance and improvement of health. Based on the research results, it shows that there is a significant relationship between age and pregnant women's knowledge about HIV, syphilis and Hepatitis B with p-value = 0.027 < α (0.05) [7]. This research is in line with research conducted by (Dagnew M, Million Y, Gizachew M, et al 2020) research title Hepatitis B & C Viruses, infection and Associated Factors among Pregnant Women Attending Antenatal Care in Hospitals in the Amhara National Regional State, Ethiopia. The research results show that young age 17-25 years with a value of RP = 3.2, (95% CI, 1.8-8.6) has significant significance. From sociodemographic characteristics, pregnant women at an easier age and being unmarried were significantly associated with the prevalence of HBsAg. This may be because, at younger ages, sexual activity is higher compared to the age group 26 years and over. These findings are in line with other studies in Gambella Ethiopia. In contrast, a study reported a high prevalence of HBsAg in mature pregnant women. Hepatitis B virus is highly contagious and a hundred times more contagious than HIV, transmitted horizontally.

through infected blood, blood products, unprotected sex, unsafe injections, tattoos and vertically from infected mother to child before birth, during birth and after birth. Mother-to-child transmission of HBV (MTCT) remains a major source of chronic infection in endemic countries. In Africa, approximately (70 percent – 90 percent) of babies who are infected before the age of 1 year develop chronic HBV infection, liver cirrhosis, hepatocellular carcinoma, and early death in children. Efforts to prevent MTCT by conducting screening, early detection of cases, initiation of

treatment in pregnant women, and administration of active and passive doses of HBV vaccine against hepatitis B immunoglobulin (HBIG) within 24 hours are widely recommended for newborns of HBsAg-positive pregnant women.

Mothers with 4T who were too young (<20 years) were not found to have a chance of causing maternal death. However, this does not mean that very young mothers are definitely safe to get pregnant and give birth. Women who are too young can be said to be not physically ready to get pregnant or undergo the reproductive process. Mothers with 4T who are too old (>35 years) have no chance of causing maternal death. However, this does not mean that very old mothers are definitely safe to get pregnant and give birth. Mothers who have their first pregnancy at the age of >35 years also have a high risk of experiencing maternal death during pregnancy, childbirth and postpartum. The results of statistical tests using Chi-square for the mother's income variable with the knowledge variable obtained p-value = 0.011 < α (0.05) [8]. This shows that statistically there is a significant relationship between maternal income and pregnant mothers' knowledge about HIV/AIDS, Syphilis and Hepatitis B.

The same research results were also presented by showing that health literacy, self-efficacy, income, support social, and educational levels explained 7.5%, 4.6%, 2.6%, 1%, and 0.6% of the variance in prenatal care, respectively [9]. Additionally, income, prenatal care, insurance, health literacy, and social support were the most effective on birth weight outcomes (OR = 2.21, OR = 2.12, OR = 2, OR = 0.66, OR = 0.17). The results of the current study suggest that a combination of health literacy, self-efficacy, and social support is needed to improve prenatal care and birth weight for low-income pregnant women in Iran.

A person's job will describe their activities and the level of economic prosperity they obtain. The research results also show that working mothers have a better level of knowledge than non-working mothers, because working mothers will have more opportunities to interact with other people, so they have more opportunities to get information about their situation.

The financial aspect can be a problem if, for example, a pregnant woman whose husband has not worked, has stopped working or has less income, perhaps the mother has to live in a cheap and shabby rented house, making the mother vulnerable to disease. To save expenses, sometimes pregnant women cannot consume adequate food. more nutritious, namely rich in protein, calcium or the minerals they need and the mother also has to work to help the family's economy, resulting in reduced rest time, there is no time and money to check her pregnancy. As a midwife, you must also understand the health insurance regulations for mothers giving birth, so that if there are pregnant women who experience financial difficulties, officers can help explain how to obtain health insurance, for example from the Health Social Security Administering Agency.

The results of research conducted by show that attitudes towards HIV/AIDS are (OR: 1.72; 95% CI: 1.50-1.96) [10]. The probability of having a positive attitude towards HIV/AIDS is 1.72 times higher in women who have comprehensive basic knowledge about HIV/AIDS. This may be partly due to an increase in the proportion of women with comprehensive knowledge about HIV/AIDS, as more accurate knowledge can result in more positive attitudes towards HIV/AIDS. Nevertheless, the percentage of women with a positive attitude barely manages to exceed 50% which means that people with HIV in Vietnam are stigmatized. In such a social climate, people who have HIV tend to hide them disease and not seek appropriate services such as screening tests or treatment for fear that their disease status will become known to others.

Green L (1980) quotes theory in, that reinforcing factors are factors that provide reinforcement for new behavior, for example in the form of rewards or stimuli for that behavior, including health workers [7]. Signals for acting both internally and externally are very important for pregnant women to know as proposed by the HBM theory. Internal signals such as symptoms of impending pain and external ones such as health messages through the mass media, advice or suggestions from midwives to consult thus influence pregnant women in gaining a correct understanding of vulnerability, emergency and the benefits of prevention or treatment.

Health service provider initiative to carry out HIV testing with a p value = 0.000. The results of multivariate analysis show that PITC is the most influential variable in HIV testing behavior in pregnant women, with an exp (B) value of 21.6. This means that pregnant women who receive initiation from a health service provider to carry out an HIV test are 21.6 times more likely to carry out an HIV test compared to pregnant women who do not receive initiation from a health service provider. (CDC 2021) This research was quoted from (Karamangi CAS et al, 2006) in that 37% of pregnant women had their HIV status known through HIV testing. The same thing was quoted from, (Hensen B et al, 2012) and (Leon N et al, 2014) in that HIV testing is very crucial, stating that HIV testing and education is the main gate or as the key to opening the HIV treatment program [11]. (Leon et al) also stated that HIV testing is the most important step in HIV prevention and treatment programs. With not many pregnant women knowing their HIV status, PPIA will certainly not work well.

Midwives provide continuous and comprehensive services, focusing on aspects of disease prevention including preventing the transmission of HIV & AIDS to pregnant women and promoting HIV / AIDS to pregnant women by providing health education or counseling to pregnant women who come to visit health service centers. Pregnant women will be guided to make their own decisions to determine new behavior and maintain it. Interventions to prevent HIV transmission to pregnant women include providing maternal and child health services which can be the beginning or entry point for efforts to prevent HIV transmission from mother to baby in pregnant women [12-18].

Conclusion

The category of teenage pregnant women still has low knowledge compared to adults, low family income also influences the mother's level of knowledge, the mother's attitude is not supportive in carrying out screening because it is influenced by the mother's low knowledge, PPIA and counseling services at the Community Health Center are not yet well understood by the community. pregnant mothers.

Recommendation

1. Efforts to increase education and empowerment regarding integrated pregnancy checks for pregnant women through the KIA program
2. To increase the role of the family and increase mothers' knowledge about healthy pregnancies.
3. Supporting creative and innovative activities of pregnant women in preparation for childbirth, postpartum and fulfilling maternal and child nutrition.

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