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Analysis Of Pregnant Women's Knowledge About Hepatitis B Regarding The Implementation Of Laboratory Examinations At Tulungagung University D3 Midwifery Study Program In 2024

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ABSTRACT

Liver disease caused by the Hepatitis B virus is a major problem in the world, with an estimated 400 million people carrying this virus. attacks all ages, genders and races throughout the world. About 5% of the world's population suffers from hepatitis B without symptoms. The prevalence in Indonesia is around 5-17%. Pregnant women who are positive for hepatitis B infection are at greater risk of giving birth prematurely, having low birth weight (BBLR) and experiencing disability. Women who are detected to have hepatitis B e-antigen (HBeAg) are the most infectious. In reality, not all pregnant women know the importance of hepatitis B screening. Not all pregnant women are routinely screened for hepatitis B, so it is only discovered that pregnant women have hepatitis B at 28 to 37 weeks of pregnancy. Type of analytical research: observational approach, cross sectional time approach, sampling technique using purposive sampling, total sample of 94 respondents. The research was carried out from 4 to 17 October 2024 at the D3 Midwifery Study Program Campus, Tulungagung University. Analysis used Chi Square. The results, of the 94 respondents who had good knowledge and carried out laboratory examinations, 8 respondents (19%), had sufficient knowledge and then carried out laboratory examinations for 50 respondents, while knowledge was lacking and 16 respondents did not carry out laboratory examinations. Chi Square calculation p-Value value 0.026 <0.05, meaning there is a relationship between pregnant women's knowledge about hepatitis B and laboratory tests. Facts and theories are in line with most respondents aged 17-25 years so their thinking process or Intelligence Quetient (IQ) is good and they are willing to carry out a hepatitis B laboratory examination because they know the benefits for pregnancy and also the health of the mother and fetus to be born.

Keywords: Knowledge, Hepatitis B, Laboratory Examination

1. INTRODUCTION

iver disease caused by the Hepatitis B Virus is a big problem in the world, it is estimated that 400 million people are carriers of this virus, so it is estimated that the hepatitis B virus will infect more than 2 billion of the current population. It is estimated that 80% of chronic hepatitis sufferers are found in Asia and the West Pacific Rim, where the prevalence of hepatitis B is more than 10%, in the United States it is estimated that 185,000,000 new infections are found per year. (Nasar Imade & Cornain Santoso. 2015; 607). Heptitis B attacks all ages, genders and races throughout the world. About 5% of the world's population suffers from hepatitis B without symptoms. Prevalence figures vary according to the country's ability to handle this disease. In developed countries, such as the United States and Europe, the prevalence is 0.1%, while in Asia and Africa it can reach 15%. The prevalence in Indonesia is around 5-17% (moderately high endemicity).

Pregnant women who are positive for hepatitis B infection are at greater risk of giving birth prematurely, giving birth to low birth weight (BBLR) babies and experiencing disabilities. Women who are detected to have hepatitis B e-antigen (HBeAg) are the most infectious. Women who have antibodies to HBeAg (anti-Hbe) generally have low infectivity. (Robson E, 2002: 252). In fact, pregnant women do not know the importance of screening for hepatitis B. Not all pregnant women are routinely screened for hepatitis B, so it is only discovered that pregnant women have hepatitis B in the third trimester of pregnancy (28 to 37 weeks of pregnancy).

The Tulungagung Health Service (Dinkes) noted that during the nine months, namely January to September 2024, 28 pregnant women were positively infected with hepatitis B. As a preventive measure, (Didik Eka), Head of infectious disease control at the Tulungagung Health Service, said that if pregnant women suffer from hepatitis B then when giving birth, the baby must receive Hb 0 immunization and HBIG immunoglobulin a maximum of 12 hours after birth. If this is not done, it is very likely that the baby will become infected. Babies born to mothers who are positive for hepatitis B must immediately receive the vaccine a maximum of 12 hours after birth.

Didik added, of the 28 pregnant women who were positive for hepatitis B, nine of them gave birth and received the vaccine, therefore he appealed to pregnant women to have regular pregnancy checks and blood tests are recommended. This effort is made to detect what diseases pregnant women suffer from, during pregnancy, routine pregnancy checks. This is to anticipate the health of the mother and baby. Pregnant women also always pay attention to adequate nutritional intake. Meanwhile, a specialist in internal medicine, Hengki Wijaya, explained that the thing that is most worrying is about babies being born, because babies are more at risk of developing liver cancer when they are still children. This disease is transmitted to the baby, because the baby is exposed to blood and vaginal fluids from the mother during the birth process (Eka Didik; 2024; Radar Tulungagung: 21)

Some of the risks that can occur during childbirth include babies being born prematurely, being born with a low birth weight, and even abnormalities in the baby's bodily functions. Of course, this is dangerous, both for the baby and for the mother. Hepatitis is an inflammatory disease of the liver caused by a virus. hepatitis. In general, there are five types of hepatitis viruses, namely A, B, C, D, and E. However, hepatitis sufferers are mostly caused by hepatitis B and C viruses. On average, pregnant women do not realize that they have hepatitis. The reason is, not everyone infected with hepatitis experiences symptoms of hepatitis. For this reason, we urge pregnant women to take preventive measures by regularly carrying out pregnancy checks and blood tests. Tests can help determine what measures are appropriate to slow the progress of the virus. Apart from that, giving HBIG immunology during the first 12 hours of birth is also mandatory, because it prevents transmission.(Eka Didik; 2024; Radar Tulungagung: 21)

Meanwhile, based on the results of the RISKESDAS analysis, 2018 shows that the proportion of pregnancy examinations in women

aged 10-54 years according to the examination components received was 11 examinations carried out, namely: measuring height, TT injection, measuring LILA, uterine height, blood supplement tablets, appointment. speech, fetal location, fetal heart rate, case management, measuring body weight, and measuring blood pressure, and the lowest proportion is measuring height, namely 68.1% from 34 provinces, while laboratory tests were not carried out. Encourage mothers to carry out laboratory tests to detect early the risk of transmitting STIs, including Hepatitis B. (Riskesdas, 2018)

The data obtained was based on interviews conducted on March 10 2024, in Sambijajar Village, Sumbergempol District, Tulungagung Regency, obtained from 10 pregnant women who had never heard about hepatitis B. 8 (80%) mothers said they had received information about hepatitis B. 2 pregnant women (20%). And the majority of pregnant women, namely 9 pregnant women (90%), don't know whether they have been checked by the laboratory regarding the hepatitis B test or not.

Efforts made are that every woman who is proven to have HBV must be advised to consult a specialist before conception, to ensure that the mother has optimal health for pregnancy. When a woman is known to have HBV, it must be identified before conception to determine whether she is chronically or acutely infected. Pregnant women should be counseled about the importance of immunization for newborns and if positive for HBeAg, explain the importance of hepatitis B immunoglobulin (HBIG). It has been proven that giving immunization and HBIG to high-risk babies can reduce the risk of vertical spread by 90%. (Robson E, 2018: 253)

Equality of knowledge and unity of strategy is really needed by health workers from the community, especially pregnant women, the government and agencies related to health services, in order to achieve optimal levels of maternal and child health by reducing maternal and child mortality rates in Indonesia. (Poedji Rochjati. 2003)

2. METHODS

The model used is the analytical survey method. The type is analytical with an observational approach. The time approach used in this research is cross sectional. The population in this study were all pregnant women who came for examinations held by the D3 Midwifery Study Program, Tulungagung University. The sampling technique used was purposive sampling. The number of samples in this study was 94 respondents. It will be held from 4 to 17 October 2024 at the D3 Midwifery Study Program Campus, Tulungagung University. The variables are: independent variable (X) Knowledge of pregnant women about Hepatitis B and dependent variable (Y) Carrying out laboratory examinations. Data analysis through univariate and bivariate stages (Chi Square test)

3. RESULTS

1Table of respondent characteristics

Respondent characteristics	Amount	Prosentase (%)
Education		
College	42	45
SMA	31	33
SMP	20	21
No school	1	1
Age		
17-25 Year	52	55
26-30 Year	39	41
31-35 Year	3	3
36-40 Year	0	0
Work		
Not	44	47
Working/IRT	29	31
Private	13	14
PNS	8	9
Farmer		
Information		
Once	54	57
Never	40	43
Resources		
Direct	41	44
Print media	40	43
Electronic	13	13
Media		
Total	94	100

Table1. Characteristics of respondents in 2024

Based on table 1 above, almost half of the total respondents were found, namely (36%) had junior high school education, and a small portion of respondents (1%) had tertiary education. For age data, half of them were (55%) aged 17-25 years, and a small portion respondents (0%) were aged 36-40 years. For employment data, almost half (47%) did not work, and a small portion of respondents (9%) worked as farmers. For information data, it was found that half (57%) had received information, and almost half of respondents (43%) had not received information. Almost half of them (44%) got information from print media, and a small portion (13%) got information from electronic media.

2. Knowledge

NO	Knowledge Criteria	frequency	percentage
1	good	18	19%
2	enough	55	59%
3	less	21	22%
	total	94	100%

Table 2 Respondents' knowledge in 2024

Based on table 2 above, more than half of the total respondents were found, namely (59%) respondents had sufficient knowledge, and a small portion (19%) had good knowledge

3. Laboratory tests

No	Laboratory tests	frequency	percentage
1	conducting	68	72 %
2	Do Not Do	26	28 %
	Total	94	100 %

Table 3 Laboratory examination of respondents in 2024

Based on table 3 above, more than half of the total respondents (68%) have had a laboratory examination, and a small portion (26%) have not had a laboratory examination.

4. Cross tabulation between Knowledge of pregnant women about hepatitis B with laboratory tests

Knowledge	Laboratory tests Hepatitis B		**Total**	**(%)**
	conducting	Do Not Do		
good	18	0	18	19
enough	50	10	55	59
less	5	16	21	22
Total	**68**	**26**	**94**	**100**

Table 4 cross-tabulation of knowledge with laboratory tests of respondents in 2024

Based on table 4 above, it was found that half of the total respondents (50%) had sufficient knowledge and had carried out laboratory examinations, and a small portion (0%) had good knowledge and had not yet had laboratory examinations. Based on Chi Square calculations, the p-value was 0.026<0, 05: Ho is rejected, meaning there is a relationship between pregnant women's knowledge about hepatitis B and laboratory examinations at the D3 Midwifery Study Program, Tulungagung University in 2024

4. DISCUSSION

1. Knowledge of Pregnant Women about Hepatitis B on the D3 Midwifery Study Program Campus, Tulungagung University, 2024

Based on table 2, it shows that of the 94 respondents, the majority of respondents (59%) or 55 respondents had sufficient knowledge and a small portion of respondents (19%) or 18 respondents had insufficient knowledge about Hepatitis B.

Hepatitis is an inflammatory liver disease caused by the hepatitis virus.(Widoyon, 2015: 93) Hepatitis B virus can cause various clinical syndromes including: acute hepatitis that heals and no virus is found in the blood anymore, fulminant hepatitis accompanied by massive liver necrosis, acute hepatitis that is not progressive, chronic disease that is progressive and ends with liver cirrhosis, without symptoms and are carriers (virus carriers)

Knowledge is the result of "knowing" and this occurs after people sense a particular object. Sensing objects occurs through the five human senses, namely sight, hearing, smell, taste and touch. The time from sensing to the results of knowledge is greatly influenced by the intensity of perceptual attention to the object. Most human knowledge is acquired through the eyes and ears. Knowledge itself is influenced by formal education factors. Knowledge is closely related to education, where it is hoped that with higher education the person's knowledge will become broader. (Wawan& Dewi. 2014)

If this theory is linked to research results, it is known that almost half of the 94 respondents, namely (36%) have junior high school education, and a small portion of respondents (1%) have tertiary education. Until now, education plays an important role in every change in behavior to achieve the expected goals. With higher levels of education, it is hoped that a person's level of knowledge will increase, making it easier to accept or adopt positive behavior.(Notoatmodjo, Soekidjo, 2003)

This is in line with the fact that respondents' knowledge about hepatitis B is one of the things that really determines the health and smoothness of a pregnancy, if most pregnant women have sufficient knowledge because the background data shows that almost half of the respondents have a high school education. so that it will affect their knowledge about hepatitis B, thus the higher the level of education of the respondent, the better their knowledge about hepatitis B and of course they will carry out laboratory tests related to hepatitis B.

2. Implementation of Hepatitis B Laboratory examinations at the D3 Midwifery Study Program Campus, Tulungagung University in 2024.

In table 3, it is known that of the 94 respondents, the majority of respondents (72%) or 68 respondents had carried out laboratory pregnancy examinations and a small portion of respondents (28%) or 26 respondents had not carried out laboratory pregnancy examinations for hepatitis B.

Carrying out a laboratory pregnancy examination is a form of a person's behavior. Behavior is an individual's response to a stimulus or an action that can be observed and has a specific frequency, duration and purpose whether it is realized or not. Behavior is a collection of several factors that interact with each other. We often don't realize that these interactions are very complex so that sometimes we don't have time to think about why someone can carry out this behavior. Therefore, it is very important to be able to examine the reasons behind the individual, before he is able to change this behavior.

(Wawan & Dewi. 2014). A person's real behavior or actions as a person's response to a stimulus, this statement is closely related to a person's knowledge.Based on the theory above, if it is connected to the research results, it is because of the 94 respondents, the majority of respondents (59%) or as many as 55 respondents have sufficient knowledge, so this has an impact on the majority of respondents (72%) or 68 respondents carrying out laboratory pregnancy checks.

Menurut Mom Jurney, 2016, Being declared positive for pregnancy by a doctor is of course the happiest thing. Pregnant women also definitely want to take good care of their pregnancy. Apart from maintaining pregnancy, it is a good idea for pregnant women to consult a doctor to carry out laboratory checks. The goal is for pregnant women to know the health of the fetus and the mother herself, to prevent bad things that might arise in the fetus so that they can be treated as early as possible. Some laboratory checks that can be carried out by pregnant women in the first trimester, one of which is Hepatitis B.

The theory and facts mentioned above make it clear that most of the respondents or pregnant women have sufficient knowledge about hepatitis B, so that respondents have the response to want to behave in carrying out hepatitis B examinations at both hospitals and health centers.

3. Relationship between Pregnant Women's Knowledge about Hepatitis B and the implementation of laboratories at the D3 Midwifery Study Program Campus, Tulungagung University in 2024

Based on the facts, it was explained that 8 respondents (19%) had good knowledge and carried out laboratory examinations, 50 respondents (19%) had sufficient knowledge and

carried out laboratory examinations and 10 respondents did not carry out laboratory examinations, while mothers who had insufficient knowledge then carried out examinations for 5 respondents and did not carried out laboratory examinations of 16 respondents. Based on Chi Square calculations, the p-Value value is 0.026<0.05: Ho is rejected, meaning there is a relationship between pregnant women's knowledge about hepatitis B and laboratory examinations at the D3 Midwifery Study Program, Tulungagung University in 2024.

Laboratory examination is an example of a person's behavior. A person's real behavior or actions as a person's response to a stimulus, this statement is closely related to a person's knowledge. Behavior is the actions or actions of an organism that can be observed and can even be studied. (Wawan & Dewi. 2014).

The above theory is strengthened by the theory of knowledge. Knowledge or cognitive is a very important domain for the formation of a person's actions. From experience and research, it turns out that behavior that is based on knowledge will be more lasting than behavior that is not based on knowledge. Knowledge is influenced by several factors, one of which is: occupation, age, information and sources of information.Based on table 1 above, it can be seen that of the 94 respondents, the majority of respondents (55%) or 52 respondents were aged 16-25 years and none of the respondents (0%) were aged 36-40 years.

As age increases, the level of development will develop in accordance with the knowledge that has been obtained and also from one's own experience. Some theories argue that a person's intelligence quotient (IQ) will decrease rapidly as they age. As a person ages, changes will occur at the physical and psychological (mental) level. The facts and theories above are in line with the majority of respondents aged 16-25 years so that their thinking process or Intelligence Quetient (IQ) is good and they are willing to carry out a hepatitis B laboratory examination because they know the benefits for pregnancy and also the health of the mother and fetus to be born.

This is supported by the fact that of the 94 respondents, almost half of the respondents (47%) or as many as 44 respondents do not work or are housewives and a small part of the respondents (8%) or 8 respondents work as farmers. The theory explains that work is an environment that can makes someone gain experience and knowledge both directly and indirectly. It can be concluded that the facts and theory are appropriate because the majority of respondents do not work or work as housewives so they have a lot of free time to get information about hepatitis B.

Supported by data from 94 respondents, most of the respondents (58%) or as many as 55 respondents had received information about hepatitis B and almost half of the respondents (42%) or as many as 39 respondents had never received information about hepatitis B. Then 55 respondents had received information about hepatitis B, almost half of the respondents (43%) received sources of information about hepatitis B directly (health workers, friends, neighbors, the community and a small portion of respondents (13%) or as many as 13 respondents received sources of information about Hepatitis B through electronic media.

Ease of obtaining information can speed up someone's acquisition of new knowledge (Mubarak, dkk,. 2017: 30). The facts and theories above are appropriate in that the respondents, most of whom are housewives, have free time to get information about hepatitis B. Almost half of the hepatitis B information obtained is based on facts from health workers so it is appropriate. A small percentage get their information from electronic media, this is because it is easier and easier to access any information, for example from cellphones or television, but the information they take is correct information that can be accounted for, for example by explaining it directly to health workers regarding hepatitis B. on pregnancy starting from the definition, symptoms, transmission and treatment, so that the information obtained is clear.

5. CONCLUSION

1. Most of the respondents (59%) or 55 respondents had sufficient knowledge and a small part of the respondents (19%) or 18 respondents had insufficient knowledge.
2. The majority of respondents (72%) or as many as respondents had carried out a hepatitis B laboratory pregnancy examination and a small portion of respondents (28%) or 26 respondents had not carried out a hepatitis B laboratory pregnancy examination.
3. Based on Chi Square calculations, the p-Value value is 0.026<0.05: Ho is rejected, meaning there is a relationship between pregnant women's knowledge about hepatitis B and

laboratory examinations at the D3 Midwifery Study Program, Tulungagung University in 2024

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