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# Research Article Open Access

# THE EFFECT OF FAMILY CONTACT HISTORY AND SUPPORT ON THE HEPATITIS B IN PREGNANT WOMEN IN SOUTH KONAWE DISTRICT

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## **Abstract**

**Background:** From the initial data collection, there were confirmed to be positive for Hepatitis B, including pregnant women and did not check their pregnancies at health care facilities. They preferred to have their pregnancy checked by traditional birth attendants. This was due to several factors including knowledge. Knowledge is something that is known to be related to the learning process, this learning process is influenced by various factors, both from within such as motivation and from outside in the form of available information facilities and socio-cultural conditions.

**Methods:** This type of quantitative research uses a case control study design with a retrospective approach. The population of all pregnant women examined was 6,584 people. The sample is 70 people with sampling using the Lameshow formula.

**Results:** The chi square test value of contact history is 24,107 which is greater than X2 table = 3.841 and p value = 0.000 and family support is 12.338 which is greater than X2 table = 3.841 and p value = 0.000.

**Conclusion:** There is an effect between contact history and family support with the incidence of Hepatitis B in pregnant women in South Konawedistric.

Key words: Personal Hygiene, Drinking, Water, Use, Diarrhea.

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# **INTRODUCTION**

Hepatitis virus is the world's main infectious disease that is still a public health problem, although currently there is an effective vaccine available in the form of antiviral treatment. Hepatitis virus which can damage the liver and has an incubation period of 14-160 days (1). It is spread through blood, unsafe injections, blood transfusions, childbirth and unprotected sexual intercourse. As a result of hepatitis B, there is an increased risk during delivery, such as premature birth, low birth weight babies, or abnormalities in the anatomy and function of the baby's body (especially in chronic hepatitis B infection)(2).

The impact of Hepatitis B is very public health large problems, productivity, life expectancy, and other socio-economic impacts. Every year there are 5.3 million pregnant women with hepatitis B, an average of 2.7%, so every year it is estimated that there are 150 thousand babies, 95% of whom have the potential to experience chronic hepatitis (cirrhosis or liver cancer) at the age of 30 years(3).

The government held a National Program on Prevention and Control of Hepatitis B Virus which focuses on preventing Mother to Child Transmission (PPIA) because 95% of Hepatitis transmission is vertical, namely from mothers who are positive for hepatitis B to their babies born. Babies born to Hepatitis B mothers are at risk of contracting Hepatitis B so they must be protected, with active vaccines (Hep immunization) and passive vaccines, namely HbIg (which provides immediate protection, but the duration of action is short) if babies of hepatitis B mothers are given only zero HB, then it only provides 75% protection, if given HB0+ HBIG < 24 hours it will provide 95% protection from Hepatitis B transmission.

Then proceed with the national immunization program, namely active immunization according to the National program (HB0, HB1, HB2 and HB3).

Indonesia ranks third with the most Hepatitis B sufferers after China and India in Asia and in the Southeast Asian region it is estimated that 100 million people live with chronic hepatitis B, Hepatitis B causes nearly 1.4 million new cases and 300,000 deaths. In 2017 there were 12,946 pregnant women throughout Indonesia who were infected with the hepatitis B virus, but the phenomenon of the incidence of hepatitis B is like an iceberg, which is only seen at the peak.(4). In 2018 there were 29,060 pregnant women throughout Indonesia who were infected with the Hepatitis B virus (Indonesian Health Profile Data, 2018). In 2019 January - June there were 9,509 pregnant women throughout Indonesia who were infected with the Hepatitis B virus(5).

Hepatitis B cases in Southeast Sulawesi Province in 2016 were 71 people consisting of Kolaka Regency 4, Konawe 8, Bombana 2, Kendari City 13, Bau-bau City 13, South Buton 12, South Konawe 19, 2017 as many as 187 people consisting of Regency Kolaka 1, North Kolaka 24, North Konawe 10, Kendari City 26, Muna 1, West Muna 1, Bau-bau City 7, South Konawe 117, In 2018 there were 340 people consisting of Kolaka Regency 25, East Kolaka 4, North Kolaka 36, North Konawe 1, Bombana 24, Kendari City 38, Bau-bau City 30, South Konawe 182, and in 2019 there were 693 people infected with Hepatitis B consisting of Kolaka Regency 116, Konawe 49, North Kolaka 43, North Konawe 1, Bombana 28, Kendari City 14, West Muna 37, Bau-bau City 61, South Buton 37. Buton 3. North Buton 2. Wakatobi 54 and South Konawe 248.Based on the Profile of the Southeast Sulawesi Provincial Health Office of Hepatitis B cases from 2016 to 2019, there were 566



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people, and South Konawe Regency was the largest contributor to cases and was the Regency with the highest cases for 4 (four) consecutive years.(6).

Based on the data from the Health Service Profile of the South Konawe Regency, in 2016 there were 19 confirmed positive cases of 331 pregnant women examined, in 2017 there were 117 positive confirmed cases of 2,491 pregnant women examined, in 2018 182 people from 4,143 pregnant women were confirmed positive. tested, and in 2019 248 people were confirmed positive from 6,336 pregnant women examined, with the highest case distribution in the Bima Maroa Health Center area, Andoolo Barat District with 88 cases, the lowest cases in the Amondo Health Center area, South Palangga District and Baito Health Center Baito District. with the number of cases each 1 (one) person (7).

Based on the above study, it shows that there is an increase in Hepatitis B cases every year. For this reason, the researcher has conducted a study with the title "The Effect of Contact History and Family Support on the Incidence of Hepatitis B in Pregnant Women in South Konawe Regency".

## **METHOD**

The type of research used is an analytic observational study, by making observations in the field about the risk factors for the incidence of hepatitis B in pregnant women in the district. South Konawe. Using a case control study design with a retrospective approach. The population of all pregnant women examined was 6,584 people. The sample is 70 people with sampling using the Lameshow formula.

## **RESULTS**

Table 1 shows that from 140 respondents, there were 52 people (37.1%) in the case group with a history of contact and

18 people (12.9%) had no history of contact with hepatitis B sufferers. Furthermore, in the control group there were 22 people (15, 7%) with a history of contact and 48 people (34.3%) had no history of contact with hepatitis B sufferers. Based on the results of statistical tests using the Chi-square test at = 5% and df = 1, the chi-square test value was 24,107 greater than X2 table = 3.841 and p value = 0.000. this means that the hypothesis is accepted, meaning that there is an influence between contact history and the incidence of hepatitis B in pregnant women in the district South Konawe. The results of the relationship closeness test show a phi coefficient ( $\varphi$ ) of 0.429, this indicates a moderate strength of the relationship between a history of contact with the incidence of hepatitis B. The results of the analysis using the Odds Ratio test on Confidence Interval (CI) = 95% the value of Odds Ratio (OR) = 6.303 with The interpretation of the lower limit value of 3.019 and the upper limit of 13.160 does not include the value of one so that it is considered meaningfulThis means pregnant women who have a history of contact with hepatitis B sufferers will have a 6,303 times greater risk of experiencing hepatitis B compared to pregnant women who do not have a history of contact. Because the value of OR (6,303) > 1, the history of contact is a risk factor for the incidence of Hepatitis B in pregnant women in the districtSouth Konawe.

Table 2 shows that from 140 respondents, there are 55 people (39.3%) in the case group who lack family support and 15 people (10.7%) with good family support. Furthermore, in the control group there were 34 people (24.3%) with less family support and 36 people (25.7%) with good family support. Based on the results of statistical tests using the Chi-square test at = 5% and df = 1, the chi-square test value is 12.338 which is greater than X2 table = 3.841 and p value = 0.000. this means that the hypothesis is accepted, meaning that there is an influence between family support and the incidence of



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hepatitis B in pregnant women in the districtSouth Konawe. The results of the relationship closeness test show a phi coefficient ( $\varphi$ ) of 0.312, this indicates the strength of the weak relationship between family support and the incidence of hepatitis B. The results of the analysis using the Odds Ratio test on Confidence Interval (CI) = 95% the value of Odds Ratio (OR) = 3.882 with iThe interpretation of the lower limit of 1.855 and upper limit of 8.126 does not include the value of one so that it is

considered meaningful, this means that pregnant women who do not get family support will have a 3.882 times greater risk of experiencing hepatitis B compared to pregnant women who receive family support. Because the value of OR (3.882) > 1, family support is a risk factor for the incidence of Hepatitis B in pregnant women in the district South Konawe.

Table 1
Risk Analysis of Contact History on Hepatitis B Incidence in Pregnant Women in South Konawe District

No	Contact History	Hepatitis B				A 4		Odds Ratio	Statistic test
		Case		Control		Amount		(CI 95%)	Statistic test
		n	%	n	%	n	%		_
1.	Yes	52	37.1	22	15.7	74	52.9		$X^2$ counts= 24,107 $X^2$ tab=3.841
2.	No	18	12.9	48	34.3	66	47.1	UL = 3.01 UL = 13,160	= 0.429
Total		70	50.0	70	50.0	140	100		

Source: Primary Data 2020

Table 2
Risk Analysis of Family Support on Hepatitis B Incidence in Pregnant Women in South Konawe District

-			itis B		Amount		Odds Ratio	Ctatistic test	
No	Family support	Case		Control		Amount		(CI 95%)	Statistic test
		n	%	N	%	n	<b>%</b>		
1.	Not enough	55	39.3	34	24.3	89	63.6	OR = 3.882 LL = 1.855	X <sup>2</sup> counts= 12,338
2.	Well	15	10.7	36	25.7	51	36.4		$X^2 \text{ tab}=3.841$
	Total		50.0	70	50.0	140	100	OL = 0.120	= 0.312

Source: Primary Data 2020

#### DISCUSSION

# Risk of History of Contact with Hepatitis B Pregnant Women

Transmission of Hepatitis B is very susceptible to occur in families, where transmission of Hepatitis B is transmitted through fluids or blood. Media or tools that are used together can increase the risk of

HBV transmission, for example the use of toothbrushes, razors, eating and drinking utensils and others. If your parents, husband, wife or closest relatives have a history of Hepatitis B, then there is a very high risk of transmitting Hepatitis B.

The results showed that from 140 respondents, there were 52 people (37.1%) in the case group with a history of contact and 18 people (12.9%) did not have a history of



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contact with hepatitis B sufferers. Furthermore, in the control group there were 22 people (15,7%) with a history of contact and 48 people (34,3%) with no history of contact with hepatitis B sufferers.

The results showed that there was an influence between a history of contact with the incidence of Hepatitis B in pregnant women in Konawe Selatan Regency in 2019. While the results of the odds ratio test showed that pregnant women who had a history of contact with hepatitis B sufferers would have a 6.303 times greater risk of experiencing hepatitis B compared to with pregnant women who have no contact history. The results of this study have similarities with the results of research by(8)The results of this study indicate that respondents who have no contact with hepatitis sufferers have a 22.8% chance of becoming hepatitis sufferers, while respondents who have contact with hepatitis sufferers have a 48.9% chance of becoming hepatitis sufferers.

Hepatitis B transmission is very susceptible to occur if there are people with Hepatitis B in the family because the transmission is transmitted through fluids, or blood. Media or tools that are used together can increase the risk of HBV transmission because it is possible if HBV sufferers have a history of contact through tools used in their daily lives.

HBV can be transmitted through contact with blood and body fluids, what is dangerous in using a toothbrush alternately with a patient here is if the patient has sores in the mouth or canker sores, they can transmit HBV to the toothbrush user. (9).

# Risks of Family Support with Hepatitis B Pregnant women

The environment around the respondent greatly influences the decision making to immunize the baby such as support from the family or husband in providing the information they get about immunization. Wives need important

information related to the risk of disease, including hepatitis B, husband and husband must actively provide information and share it with his wife.

The results showed that from 140 respondents, there were 55 people (39.3%) in the case group who lacked family support and 15 people (10.7%) with good family support. Furthermore, in the control group there were 34 people (24.3%) with less family support and 36 people (25.7%) with good family support.

The results showed that there was an influence between family support and the incidence of Hepatitis B in pregnant women in Konawe Selatan Regency in 2019. While the results of the odds ratio test showed that pregnant women who lacked family support would be at risk of 3.882 times greater experiencing hepatitis B compared pregnant women. who receive family support. The results of this study are in line with the opinion of(10), which states that there is family support (husband, parents, inlaws and other relatives) to mothers in the form of obtaining basic information on children. Mother will feel that it is very important to boost her baby's immunity. This condition will certainly greatly affect the achievement of the expected immunization.

Husband or family support is one of the factors that also plays an important role in the success of hepatitis B disease prevention. In the family, if one of the family members gets or experiences problems in their health, it will have an impact on other family members. So in improving the health of the family, it becomes a part that has an important role in improving and maintaining the health of all family members, the family can also be a place for decision making and health care. Likewise, the importance of the role of the husband or family in preventing hepatitis B, because the support from the closest people such as husband or family participates in motivating mothers to do or make decisions in immunizing their children from an early age.

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The results of filling out the questionnaire can be seen that husbands or families cannot always provide time to accompany mothers to visit health care facilities, because husbands work from morning to evening so they do not have free time to take mothers to health facilities, so the husband as the head of the family prioritizes themselves to earn a living rather than paying attention to the health needs of their wives and children. So it is necessary to make health promotion efforts, especially regarding the prevention of hepatitis, so that husbands can know and understand that support from a husband plays a very important role in shaping an attitude or behavior in the mother.

Mothers who receive husband or family support in immunization have a higher accuracy of immunization compared to mothers who do not receive husband or family support because husband or family support can increase mother's motivation to include herself in carrying out health checks according to schedule. The influence of the family on the formation of attitudes is very important because if the family's attitude towards disease prevention is lacking, the implementation of the health program will not be carried out by the mother because she does not get support from her husband or family.

# **CONCLUSION**

There is an influence between contact history and family support with the incidence of Hepatitis B in pregnant women in the District South Konawe. The importance of involving many parties to break the chain of transmission of hepatitis B, not only from health workers but also from traditional leaders, community leaders, youth leaders, academics and local government.

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