

Research Article

DOI: 10.62046/gijams.2024.v02i04.007

Social Problem and Hepatitis B Infection in Pregnant Women Primigravidae and Multigravidae at Padang Serai Health Center in Bengkulu City: A Mixed Methods Study

Fiya Diniarti^{1,2}, Mohamed Saifulaman Mohamed Said², Norhashima Abd Rashid²

¹Universitas Dehasen Bengkulu, Indonesia

²Lincoln University College, Wisma Lincoln, Selangor, Malaysia

*Corresponding Author: Fiya Diniarti | Received: 25.07.2024 | Accepted: 21.08.2024 | Published: 29.08.2024

Abstract: Background: Hepatitis B in pregnant women has an impact on low fetal birth weight, premature, antepartum hemorrhage due its chronic nature and transmission of hepatitis B virus from mother to child is significant public health problem. **Objective:** To determine of characteristics of the description of respondents and identify social problem experienced by the pregnant women with hepatitis B at the Padang Serai Health Center, Bengkulu City. **Method:** A mixed methods research design of methods used to identify various social problem experienced by pregnant women with hepatitis B and using descriptive statistics and processed into SPSS version 2 0 and data collected using questionnaire checklist and in depth interview guide. We conducted a survey involving 92 mothers after pregnancy with 10 in depth interviews with hepatitis B positive pregnant women and midwife coordinator and health staff analysis. **Results:** Descriptive analytic survey based on respondents characteristics mostly from respondents with age range (20-35 years), multigravidae, self-employed , low economy level, serawai tribe, secondary education level , do not have their own immunization history and some small husband are positive for hepatitis B. This qualitative study also identifies social problems faced by pregnant women with hepatitis B, such as knowledge, awareness, understanding of hepatitis B disease and social stigma. **Conclusion:** The study highlighting that prevention, control and awareness are also needed to eliminate stigma or discrimination in hepatitis B sufferers, an important factor to achieve the target of the global hepatitis elimination program by 2030. **Suggestion:** Recommendation for future studies to explore comprehensive combination health services ranging from screening, diagnosis, standart treatment and health education, campaign, counseling or reducing the stigma of hepatitis B patients in community.

Keywords: Social Problem, Hepatitis B infection, Primigravidae and multigravidae pregnant women.

Citation: Fiya Diniarti *et al.* Social Problem and Hepatitis B Infection in Pregnant Women Primigravidae and Multigravidae at Padang Serai Health Center in Bengkulu City: A Mixed Methods Study. Grn Int J Apl Med Sci, 2024 Jul-Aug 2(4): 157-164.

INTRODUCTION

Hepatitis B is disease caused by the origin of the hepatitis B virus from the family *Hepadnaviridae* and attacks the heart. In 2019, 296 million people had chronic hepatitis B infection with 1.5 million new deaths infections per year and approximately 820,000 deaths from cirrhosis and carcinoma hepatocellular which is primary liver cancer [1]. This disease can develop into heart cancer, which reaches 630 thousand case s every years and is one of the highest reason for death worldwide due to the hepatitis B virus [2].

The main risk factor of hepatitis B virus infection is birth to mother whose career is chronic. Other people at high risk include those who use injecting drugs, members suffering from chronic hepatitis B disease, immigrants from endemic areas and their own risk factors for sexually transmitted infectious infection (STIs). Between 5% and 20% of pregnant women who

are HBsAg positive will transmit the virus to a baby, babies infected with the hepatitis B virus, 90% will develop chronic hepatitis B [3].

It is very important to remember that the hepatitis B virus in pregnant women can cause premature birth, spontaneous abortion, increasing the frequency of babies with low birth weight and fulminant hepatitis (heart failure I). When the hepatitis B virus survives from more than six month, it is at risk of transitioning to ichronic infections; 90 to 95% of perinatal infections lead to newly infected babies born with cirrhosis and heart cancer [4].

In 2020 WHO that hepatitis is one of the disease that must be handled priority by countries around the world. However, detecting the reason for this disease is a challenge that must be overcome because hepatitis

sufferers are usually known when the condition is advanced [1].

In Indonesia it is estimated that there are around 20 million people suffering from hepatitis with highest prevalence of hepatitis B cases. The CDA Foundation records 51,000 deaths from hepatitis B in Indonesia every year, with 2,159 deaths from cirrhosis and heart cancer, which are consequence of chronic hepatitis experienced by people with hepatitis B at an advanced stage in 2022 [5].

In Bengkulu City, there is an increase in hepatitis B sufferers from 2019 to 2023, one of the prevention effort carried out identifying pregnant women suffering from hepatitis B through HBsAg examination of pregnant women, but actually many pregnant women do not want to check the consequences of hepatitis B problem in Bengkulu such as iceberg phenomenon, where patients registered facilitated health less than the actual quantity of sufferers [6]. Based on the results interviews with pregnant women as many as 30 respondents, it was found that more of the extended family (husband/mother) had a positive history of hepatitis B.

A very important issue to remember that mother who undergo hepatitis B screening pregnancy do not know that there is a positive family history of hepatitis B. pregnant women who are positive for hepatitis B, then their her families (husband/mother) also undergo it hepatitis B screening, from the results here it is known that a positive family history of hepatitis B can transmit to pregnant women [6]. Qualitative studies show that a family history of positive hepatitis B can increase the risk of infectious hepatitis B and how worried and anxious the sufferer is when they have HBsAg positive, many questions are asked, such as whether they have sex, sharing dangerous goods people, kissing can be risk of hepatitis B and also an explanation of the result of blood tests (HBsAg) in the laboratory [7]. According to qualitative studies with phenomenology design shows a history of immunization can causes hepatitis B in the mother pregnant [8]. According to study Zhou et al., [9] a number of obstacle in prevention and control of hepatitis B is knowledge society, education poor health adequate, and service poor health satisfaction and bad stigma in society in hepatitis B patients.

Hepatitis B sufferers generally experience social and self- stigma itself is influential to aspect life. self and social stigma cause impact emotional, stylish life, prejudice, marginalization, inferiority price dori, interesting self from socialization , shame , guilt, loss opportunity work, problems connection family, friends or partner close and hiding hepatitis B status [10].

By 2030, access to service health and prevention hepatitis B disease will become factor important in effort eliminate hepatitis B, for fulfil need Bengkulu

City residents, service center health the community(Puskesmas) must provide service basic, however until moment this, not yet There is research in Bengkulu City that explores problem social and barriers prevention as well as control of hepatitis B in the community at the Padang Serai Health Center in Bengkulu City, study This own gap academic and able give outlook new about method effective prevention and control of hepatitis B in the community especially in Bengkulu City. Interview deep done For gather information about identify problem social problems faced by mothers Pregnant women with hepatitis B, such as knowledge, awareness, understanding about about hepatitis B disease and social stigma of hepatitis B prevention programs from center health community (Puskesmas).

MATERIALS AND METHODS

STUDY DESIGN

Study This use A mixed methods design is something approach research that uses quantitative and qualitative data as answer on question study in a way concurrent, method study this combine excess from method quantitative and qualitative with for produce more picture complete and in-depth the phenomenon under study. (Creswell W John and Creswell David J, 2018) [11]. Samples of technique in this research is purposive sampling.

SAMPLE

Amount sample in this study was determined using the Krechie formula [12] determining the sample size based on population size. The population of this study is patients who entered the Padang Serai Health Center, Bengkulu City to conduct HBsAg examination as many as 120 respondents and patients who had declared 20 respondents positive for hepatitis B. The Population was collected by looking at secondary data from register book at the center health community (Puskesmas) for the last 3 months from November 2023 to January 2024. The A mixed methods used instrument consists of 2 parts including questionnaire answered by a sample of 92 respondents and in depth interviews conducted on informants as many as 10 respondents.

DATA ANALYSIS

Data analysis using statistics descriptive simple and refined into SPSS version 20. Frequency generated from respondent answers and results presented in table. The categories of respondent variables are compared with those in table to get clear results from different categories of respondent.

The qualitative data is analyzed through a quick review of field notes identifying key patterns and initial themes. In-depth interviews are transcribed with edited transcripts for accuracy. Study objectives of the study are used to develop themes with grounded theory used until saturation is achieved. Content analysis is the carried out.



ETHICAL APPROVAL

Permission ethical obtained from Committee Ethics Faculty Health Sciences Dehasen Bengkulu Number (No.002/D-KEPK/FD/II/2024).

RESULT

Table-1: Respondent Characteristics

Variables	f	%
Age		
< 20 Years	15	16
20-35 Years	60	65
>35 Years	17	18
Parity		
Primigravidae	32	35
Multigravidae	60	65
Occupation		
civil servants	10	11
Self-employed	35	38
Private	30	33
Other	17	18
Economic level		
< 2,500,000,-	22	24
>2,500,000,-	70	76
Ethnic group nation		
Serawai	35	38
Lembak	17	18
Jawa	15	16
Rejang	20	22
Other	5	5
Education		
Low (Primary health School)	40	43
Middle (Junior High School)	42	46
High (Diploma/Bachelor)	10	11
Family history (husband)		
Hepatitis B positive	10	11
Hepatitis B negatif	82	89
Hepatitis B Immunization History		
Yes	32	35
No	60	65

Table 1 shows that most of respondents with an age range 20-35 years as many as 35 (65%), most of the respondents of multigravidae parity as much as 60 (65%), almost half respondents have occupation as self-employed as much as 35 (38%), almost all respondents have a low economy level (>2,500,000,-) as much as 70 (70%), almost half of the respondents from ethnic group serawai as much as 35 (38%), almost half of the respondents had middle education (SMP-SMA) as many as 42 (46%), a small from percentage of respondents their own husbands who tested positive for hepatitis B by 10 (11%) and most of the respondents did not have a history of Hepatitis B immunization by 60 (65%).

Group results in depth interview

This study was conducted a total of 10 participant, consisting of a midwife coordinator consisting of 1 participant as a population expert, analysis health staff consisting as a population expert from 1 participant, 8 key participants were pregnant women with positive of hepatitis B. Interviews were conducted with 8 key informants and 2 expert informants from community health center which is carried out in the room consultation public health center. All results research of this research data analysis are described based on partial research focus question answered by large informant as follows: the group participants interviewed amounted to 10 people, expert informants aged 38 to



with 43 years and the age range of key informant aged 25 to with 39 years, 8 key informants had informant with divorce status and 7 key informants with married status, 8 informants used hormonal contraceptives.

There are 4 key informants once immunization and 4 key informants no immunization. 8 key informants with primigravidae and multigravidae pregnancy status, 8 low education level.

Table 2 Themes of the group interviewed (Qualitative Study)

Theme	Quote Representative
Understanding about hepatitis B disease.	<i>Population Key :</i> According to P1 and P2, “understanding Hepatitis B is disease yellow ” According to P3 and P4 “ understanding Hepatitis B is liver and stomach diseases swollen ” According to P5 and P6 “understanding Hepatitis B is I No know about hepatitis B”. According to P7 & P8 “the same very I No know and don't know Once hear about hepatitis B
When you do hepatitis B test (HBsAg)	<i>Population key :</i> According to P1 and P2, “ when age pregnancy I enter 3 months old ” According to P3 and P4 “ when age pregnancy I enter 6 months old ” According to P5 and P6 “I do test at the health center and age 4 months pregnant ”. According to P7 & P8 “ age pregnancy I'm 2 months old ”
There are signs and symptoms that are felt before diagnosed with hepatitis B	According to P1 and P2, “ yes I feel weakness , nausea , pain head ” According to P3 and P4 “ I no feel anything ” According to P5 and P6 “ I feel stomach bloated ” According to P7 & P8 “ I once feel color skin become yellow ”
How do you react when you find out you've been diagnosed positive for hepatitis B	<i>Population key :</i> According to P1 and P2, “ I anxious and me no give know husband , brother me and my parents , because I no know How reaction they know I positive for hepatitis B, husband and mother suffer disease hepatitis and diabetes, we take care of things make they scared and me No Want to become burden I ”. According to P3 and P4 “ I no know, how I can I got hepatitis B and I was crying give know results inspection this with husband ”.. According to P5 and P6 “ I startled when see results this , and me give know husband , mother and brother me and me will use tool contraception condom ”. According to P7 & P8 “ I depression doesn't feel like it believe I get disease This is me No story to family but I story The same Friend I”
Family history hepatitis B sufferers	<i>Population Key :</i> According to P1 and P2, “ husband I suffering from hepatitis B.” According to P3 and P4 “I no know husband or family My other one suffers from hepatitis B ” According to P5 and P6 “my family don't there are those who suffer from hepatitis B and their families I not yet do hepatitis B examination ”. According to P7 & P8 “ husband I suffering from hepatitis B.
Immunization history	<i>Population Key :</i> According to P1 and P2, “ still small I once immunized B”. According to P3 and P4 “ I no remember ”.. According to P5 and P6 “ I instilled in school ” According to P7 & P8 “ I no know ”
Your life after positive for hepatitis B	<i>Population Key :</i> According to P1 and P2, “ I use condom moment relate sexual ” According to P3 and P4 “other people are very careful with me , them already no want to share tool personal with I like no want to change knife or nail clipper According to P5 and P6 “ husband and mother request for guard pattern life Healthy to me ” According to P7 & P8 “I am honest with husband If I positive for hepatitis B however husband no want to use condom moment connection sexual Because No nice ”.
How do you do prevent hepatitis B problems	<i>Population Key :</i> According to P1 and P2, “must there is education mass about hepatitis B ” According to P3 and P4 “extension and counseling in a way continously about hepatitis B to public According to P5 and P6 there is a hepatitis B screening program for family (

	<p>husband)".</p> <p>According to P7 & P8 "A hepatitis B screening program was carried out before Marry".</p>
<p>Social stigma: Other people's judgments about You</p>	<p>Population Key :</p> <p>According to P1 and P2, "I'm like a roller coaster with mixed emotions stir , after I tell me problem I to others, the response rather they afraid with me "</p> <p>According to my P3 and P4 "tell me this my problem, was the response rather they pity with my condition".</p> <p>According to P5 and P6 " my friends convey must life healthy and them ask why matter This can happened and my treated different after know condition "</p> <p>According to P7 & P8 "other are talkin about me behind my back, and I feel embarrassed".</p>
<p>Treatment carried out post knowing Hepatitis B is Positive.</p>	<p>Population Key :</p> <p>According to P1 and P2, "I was advised for go to house sick for operate treatment But I don't go Because Busy "</p> <p>According to P3 and P4 "I don't drink drug after treatment "</p> <p>According to P5 and P6 "I drink drug from doctor every day "</p> <p>According to P7 & P8 "I drink herbal medicine "</p>
<p>Hepatitis B prevention program in babies born from pregnant women Hepatitis B positive.</p>	<p>Population :</p> <p>According to P9 " there is giving immunization after born before age 24 hour baby '.</p> <p>According to P10 ' there is an inspection program maternal hepatitis B (HBsAg) screening pregnant at the health center with cost free"</p>
<p>Giving Antiviral drug Tenofovir Disoproxil Fumarate (TDF) in pregnant women who is positive for hepatitis B.</p>	<p>Population :</p> <p>According to my P9 " don't know if there is such a program and we don't have one at our health center There is giving the antiviral drug"</p> <p>According to P10 " I Once hear but we haven't Once give the antiviral drug</p>
<p>Obstacles and obstacles mother 's hepatitis B (HBsAg) examination pregnant</p>	<p>Population :</p> <p>According to P9 "Many mothers pregnant who is not yet know importance hepatitis B (HBsAg) screening</p> <p>According to P10 "That's it delivered on time ante natal care check at the service post integrated for do hepatitis B screening at the Community Health Center , however reality his Mother pregnant No come to center health public with reason scared , anxious , busy and not There is support husband .</p>

DISCUSSION

In this a mixed methods study, we determined social problem to be the reason for incidence of hepatitis B in pregnant women includes: characteristics of people: age, parity (primigravidae and multigravidae), occupation, economy level, ethnicity nation, education, family history, immunization history, aspect of lack of awareness and understanding includes: knowledge, aspects psychological such as: social stigma. This study found that pregnant women who have hepatitis B at the Bengkulu City Health Center are between the ages of 20-35 years old, multigravidae, occupation self-employed, poor economy level, serawai ethnicity nation, low education level, Immunization history and history the family (husband) are also at risk of hepatitis B. First of risk is immunization history, this results this reinforced by the findings [13] showed that all informant of pregnant women who were positive for hepatitis B did not have their own immunization history and had a family history of hepatitis B. Other findings also [14] married respondents had the highest hepatitis B vaccination rate among family member (40.1%). other findings also suggest accessibility and affordability vaccination are important factors

determining mandatory uptake of vaccination considered when planning vaccination campaigns [15]. Other research also shows difference level collected at the time of this analysis were below optimal, thus failing to demonstrate consistent effectiveness for planning global elimination of hepatitis B virus by 2030. Using a consistent age group the likelihood of self marking significant in determine the effectiveness of hepatitis B vaccine [16]. The next risk is age, this finding is reinforced by Vebriyani research also shows that there is significant relationship between age with hepatitis B triple elimination examination, mostly aged 20-35 years [17].

Furthermore, the risk is multigravidae and economics level, these findings are reinforced by Batayneh research which obtained most woman are of third trimester gestational age, and amount child more from one (multigravidae) who are at risk of transmitting hepatitis B infection to newborns and a woman who has low economy a higher risk of hepatitis B virus infection [18].

Next risk are knowledge, things that nformant knows related to health and disease or health [19]. This result



are reinforced by other research that provides education can result in increased knowledge to raise awareness to get health service [20]. This studies is reinforced by mix method study show the main reason for decline in the quality of life of hepatitis B patients: unmet needs information, education, family support, improve awareness with a focus on desstigmatization [21].

Furthermore of risk is psychological, studies This strengthened by the results review literature qualitative show that Hepatitis B patients experience experience emotional impact psychological, during interview fatigue is most frequent symptoms reported and Most participant worried/anxious about virus transmission/disease / death [22].

Other findings are also telling perception of hepatitis in pregnant women about hepatitis B infection still lacking pregnant women show a very positive attitude towards therapy and immunization [30].

In addition, social stigma and discrimination against hepatitis B patients were also found in this study. The study is reinforced by findings that show stigma; discrimination has important in influence diagnosis, management and treatment [23]. Other findings also found that hepatitis B sufferers experience social challenges in the form of lack of awareness, psychology problem and stigmatization from health care providers, family members and colleagues working at their work site, you can concluded more understanding and good awareness of hepatitis B is needed to eliminate stigma and discrimination in hepatitis B patients, therefore a holistic and persuasive approach must be taken in dealing with patient aforementioned [24]. Other research states that social stigma occurs in hepatitis B sufferers due to lack of knowledge after results diagnosis obtained , as a result sufferer the hide disease of people and triggers various complications disease other [25]. Other studies show that you can prevent stigma, society can seeking and giving information to sufferer about method hepatitis B transmission and vaccination [26]. Factor psychosocial such as stigma, disclosure, depression and anxiety, this can influence quality life hepatitis B sufferers [27]. The facts also found that there was no stigma can ignored to People infected with hepatitis B experience various stigmas or experience anxiety (worry experience condition this) [28].

Furthermore of risk limited education health No reach public in a way effective. Studies this strengthened with results study show there is influence giving education health use video against knowledge Mother pregnant about hepatitis B disease in the central region health community (Puskesmas). Concluded that in Century front center health public can give education health video- based about hepatitis B was used for class Mother pregnant with one ante natal care visits [29].

Incidence of hepatitis B infection in the pregnant women is very detrimental health society in Indonesia and in the world, however moment this not enough researched and even no known by the public. On research we confirm this that infection the incidence of hepatitis B is issues that are priorities and must be resolved quick in the region endemic (Indonesia) and our research has a number of necessary limitations acknowledged, first because limited time, energy and resources power others , then amount sample small can included, because that's a finding this possible no can generalized to other regions in Indonesia, however can give outlook about challenge moment this in prevention and control of hepatitis B in the community in Bengkulu, Indonesia.

CONCLUSION

Through findings this, it was concluded that hepatitis B infection can give rise to challenge problem social among maternal hepatitis B patients pregnant. Findings study this is description maternal characteristics pregnant includes: most of the respondents have age range (20-35 years), parity (multigravidae), occupation self-employed, low economy level, ethnicity (Serawai), low education, some small family history (husband) suffers from hepatitis B, most have no history of self immunization. Hepatitis B sufferers experience social problem in the form of lack of awareness and understanding includes: knowledge and psychological aspects such as: social stigma. More understanding and awareness of hepatitis B is needed to eliminate stigma and discrimination in these patients, because a holistic and persuasive approach must be taken in dealing with hepatitis B patients pregnant women. Recommendation for further study need to explore service health comprehensive combination started from screening, diagnosis, treatment standardized and educational health, campaign, counseling for reducing the stigma of hepatitis B patients in society.

STATEMENT OF CONFLICT OF INTEREST

The author declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article

FUNDING

The author received no financial support for the research, authorship, and/or publication of this article.

ACKNOWLEDGMENT

The authors wish to thank all the authors whose articles were reviewed in the present study.

AUTHOR CONTRIBUTION

Fiya Diniarti – Conceptualizing or design of the work, methodology, writing-original draft.
Mohamed Saifulaman Mohamed Said – Drafting the work or reviewing it critically, supervision.
Norhashima Abd Rashid-Drafting the work or reviewing it critically, Supervision.



WRITER BIOGRAPHY

Fiya Diniarti, SKM, M.Kes is PhD students health Science program in Lincoln University College, Malaysia.

Prof. Mohamed Saifulaman is Lecturer Health Science, Lincoln University College, Malaysia.

Norhashima Abd Rashid is lecturer sciences, Lincoln University College, Malaysia

REFERENCES

- WHO (2023). Hepatitis B. <https://www.who.int/news-room/fact-sheets/detail/hepatitis-b>; downloaded on January 10, 2024.
- Zabihi, A., Jafarian Amiri, SR, & Qalehsari, MQ (2020). Physical, psychological, and social challenges in patients with hepatitis B infection. *Iranian Journal of Psychiatry and Behavioral Sciences*, 14 (3). <https://doi.org/10.5812/ijpbs.104674>
- Bitnun, A., Sauvé, L., & Fanella, S. (2023). Reducing perinatal infection risk in newborns of mothers who received inadequate prenatal care. *Paediatrics and Child Health (Canada)*, 28 (5), 307–314. <https://doi.org/10.1093/pch/pxad014>
- KABAMBA, A., Kakisingi, C., Mwamba, C., Nyembo, C., Dufrasne, F., Dessilly, G., KABAMBA, B., & Longanga, A. (2022). Epidemiology of hepatitis B virus infection among Pregnant Women in Lubumbashi, Democratic Republic of Congo: Prevalence, risk factors, and Genotype Distribution. *African Journal of Gastroenterology and Hepatology*, 5 (1), 19–32. <https://doi.org/10.21608/ajgh.2022.120953.1002>
- Ministry of Health 2020-2024. National Plan: Hepatitis B Control in Indonesia 2020-2024. Ministry of Health: Jakarta. <https://www.globalhep.org/sites/default/files/content/resource/files/2022-11/RAN%20HEP%202020-2024%20KDT.pdf>
- Diniarti, F., Rohani, T., & Prasentya, W. (2022). Factors That Influence the Incidence of Hepatitis B in Pregnant Women. *Bandung Department of Health Polytechnic Health Research Journal*, 14 (1), 197–205. <https://doi.org/10.34011/juriskesbdg.v14i1.1971>
- Freeland, C., Racho, R., Kamischke, M., Moraras, K., Wang, E., Cohen, C., & Kendrick, S. (2021). Health-related quality of life for adults living with hepatitis B in the United States: a qualitative assessment. *Journal of Patient-Reported Outcomes*, 5 (1). <https://doi.org/10.1186/s41687-021-00398-8>
- Science, J., & Journal, K. (2021). *Al-Insyirah Midwifery*. 10, 33–40.
- Zhou, X., Zhang, F., Ao, Y., Lu, C., Li, T., Xu, X., & Zeng, H. (2021). Diagnosis experiences from 50 hepatitis B patients in Chongqing, China: a qualitative study. *BMC Public Health*, 21 (1), 1–8. <https://doi.org/10.1186/s12889-021-11929-9>.
- Toumi, M., Wallace, J., Cohen, C., Marshall, C., Kitchen, H., Macey, J., Pegram, H., Slagle, A.F., Gish, R.G., Ning, Q., Yatsuhashi, H., Cornberg, M., Brunetto, M., van Bömmel, F., Xie, Q., Lee, D., Habuka, N., Sbarigia, U., Beumont-Mauviel, M., ... Wang, S. (2024). Experience and impact of stigma in people with chronic hepatitis B: a qualitative study in Asia, Europe, and the United States. *BMC Public Health*, 24 (1), 1–14. <https://doi.org/10.1186/s12889-023-17263-6>
- Creswell W John and Creswell David J, 2018, *Research Design: Qualitative, Quantitative and Mixed Methods Approaches*; Sage Publications; London.
- Krejcie, R., V. Morgan, & W., D. (1996). (1970) "Determining sample size for research activities", *Educational and Psychological Measurement*. *International Journal of Employment Studies*, 18 (1), 89–123.
- Gobel, A., & Kurnesih, E. (2021). Risk Factors for Hepatitis B in Pregnant Women in Makassar City in 2019. 2 (3), 22–45.
- Adekanle, O., Komolafe, AO, Olowookere, S.A., Ijarotimi, O., & Ndububa, D.A. (2020). Hepatitis B Infection: A Mixed Methods of Disclosure Pattern and Social Problems in the Nigerian Family. *Journal of Patient Experience*, 7 (2), 208–216. <https://doi.org/10.1177/2374373519827965>
- Machmud, P.B., Führer, A., Gottschick, C., & Mikolajczyk, R. (2023). Barriers to and Facilitators of Hepatitis B Vaccination among the Adult Population in Indonesia: A Mixed Methods Study. *Vaccines*, 11 (2), 1–16. <https://doi.org/10.3390/vaccines11020398>
- Geta, M., Yizengaw, E., & Manyazewal, T. (2024). Hepatitis B vaccine effectiveness among vaccinated children in Africa: a systematic review and meta-analysis. *BMC Pediatrics*, 24 (1), 1–9. <https://doi.org/10.1186/s12887-024-04557-w>
- Vebriyani, N., Putri, R., & Munawaroh, M. (2022). The Relationship between Perceptions, Sources of Information and Behavior of Pregnant Women on the Triple Elimination Examination at Pmb Neti Vebriyani in 2022. *Journal of Midwifery Science and Women's Health*, 2 (2), 52–59. <https://doi.org/10.36082/jmswh.v2i2.542>
- Batayneh, N., & Bdour, S. (2002). Risk of perinatal transmission of hepatitis B virus in Jordan. *Infectious Diseases in Obstetrics and Gynecology*, 10 (3), 127–132. <https://doi.org/10.1155/S1064744902000121>
- Sulyastini, NK, & Wirawan, IMA (2023). Antenatal Education to Support Triple Elimination Program: A Systematic Literature Review. *Journal of Science Education Research*, 9 (8), 474–485. <https://doi.org/10.29303/jppipa.v9i8.4234>
- Hosking, K., De Santis, T., Vintour-Cesar, E., Wilson, P.M., Bunn, L., Gurruwiwi, G.G., Wurrawilya, S., Bukulatjpi, S.M., Nelson, S., Ross, C., Stuart-Carter, KA, Ngurruwuthun, T.,



- Dhagapan, A., Binks, P., Sullivan, R., Ward, L., Schroder, P., Tate-Baker, J., Davis, J.S., ... Davies, J. (2024). "Putting the power back into community": A mixed methods evaluation of a chronic hepatitis B training course for the Aboriginal health workforce of Australia's Northern Territory. *PLoS ONE*, 19 (1 January), 1–23. <https://doi.org/10.1371/journal.pone.0288577>
21. Grønkjær, L.L., & Lauridsen, M.M. (2021). Quality of life and unmet needs in patients with chronic liver disease: A mixed-method systematic review. *JHEP Reports*, 3 (6), 100370. <https://doi.org/10.1016/j.jhepr.2021.100370>
22. Abbott, J., Aldhouse, NVJ, Kitchen, H., Pegram, HC, Brown, F., Macartney, M., Villasis-Keever, A., Sbarigia, U., Ito, T., Chan, EKH, & Kennedy, PT (2024). A conceptual model for chronic hepatitis B and content validity of the Hepatitis B Quality of Life (HBQOL) instrument. *Journal of Patient-Reported Outcomes*, 8 (1), 1–14. <https://doi.org/10.1186/s41687-023-00675-8>
23. Tu, T., Block, J.M., Wang, S., Cohen, C., & Douglas, M.W. (2020). The lived experience of chronic hepatitis B: A broader view of its impacts and why we need a cure. *Viruses*, 12 (5), 1–20. <https://doi.org/10.3390/v12050515>
24. Chowdhury, S., & Chakraborty, P. (2017). Universal health coverage - There is more to it than meets the eye. *Journal of Family Medicine and Primary Care*, 6 (2), 169/170. <https://doi.org/10.4103/jfmprc.jfmprc>
25. Valizadeh, L., Zamanzadeh, V., Bayani, M., & Zabihi, A. (2017). The Social Stigma Experience in Patients With Hepatitis B Infection: A Qualitative Study. December. <https://doi.org/10.1097/SGA.0000000000000223>
26. Yozgat, A. (2021). *Gastroenterology and Hepatology*. 44.
27. Li, G., Wang, G., Hsu, F.C., Xu, J., Pei, X., Zhao, B., & Shetty, A. (2020). Effects of depression, anxiety, stigma, and disclosure on health-related quality of life among chronic hepatitis B patients in Dalian, China. *American Journal of Tropical Medicine and Hygiene*, 102 (5), 988–994. <https://doi.org/10.4269/AJTMH.19-0007>
28. Esen Yıldız, İ., Bahçeci, İ., Yılmaz Yavuz, A., Kostakoğlu, U., & Ertürk, A. (2021). Assessment of Stigma Exposure Status of Patients with Hepatitis B Infection. *Viral Hepatitis Journal*, 27 (2), 80–88. <https://doi.org/10.4274/vhd.galenos.2021.2021-5-1>
29. Qalsum, U., Noorma, N., & Haloho, C.B. (2023). The Effect of Providing Health Education Using Video Media on Pregnant Women's Knowledge of Hepatitis B in the Work Area of the Melak Health Center. *Formosan Journal of Science and Technology*, 2 (2), 597–616. <https://doi.org/10.55927/fjst.v2i2.2692>
30. Antenatal, M., Against, C., Hepatitis, B., Siompu, K., & Selatan, B. (2023). Department of Nursing, Faculty of Medicine, University. 11 (2), 380–391.