



## THE IMPLEMENTATION OF INTERPROFESSIONAL COLLABORATION IN CHILDBIRTH HEPATITIS B IN INDONESIA.

**Yohana Samosir<sup>1</sup>, Sulistyaningsih, Sri Ratna Ningsih<sup>3</sup>**

<sup>1</sup> Student of Magister Study Program, Universitas 'Aisyiyah Yogyakarta, Indonesia.

<sup>2,3</sup> Lecturer of Universitas 'Aisyiyah Yogyakarta, Indonesia.

Email: yohanamosir2003@gmail.com<sup>1</sup>, sulistyaningsih@unisa.ac.id<sup>2</sup>, ratna\_ningsih@unisayogya.ac.id<sup>3</sup>

### ABSTRACT

Transmission of hepatitis B from mother to fetus can cause a risk of more than 90% of developing chronic hepatitis B in the baby. The practice of interprofessional collaboration can prevent and reduce the risk of transmission and improve patient safety. Objective: explore more deeply and find out the practice of interprofessional collaboration in mothers giving birth with Hepatitis B at RSUD Imelda Pekerja Indonesia. Method: This qualitative research used an embedded single case study design with 10 informants consisting of 1 obstetrician, 1 medical laboratory technology expert (ATLM), 1 pharmacist, and 6 midwives. In-depth interviews were conducted to gather information, and the data was analyzed using NVivo 12 Plus software. This study used triangulation of data from doctors, midwives, ATLM, pharmacists, and women giving birth with hepatitis; it was analyzed using thematic analysis, matrix analysis, and pattern matching analysis. Results: This study identified a collaborative flow from the Obstetrics Emergency Room, pharmacy, delivery room, postpartum room, to administering Hepatitis B immunoglobulin serum to babies in the neonatal room. The work culture showed compliance with PPI and timely administration of serum to babies to prevent transmission. Institutional and environmental support includes unlimited provision of PPE and availability of medical equipment. The values and ethics of collaboration have upheld patient privacy rights and mutual respect between professionals. The barriers include a lack of training for midwives and the absence of specific SOPs for Hepatitis B deliveries. The hope is to increase midwives' understanding of education and training.

**Keywords:** Interprofessional\_Collaboration\_Practice; Childbirth; Hepatitis B

### ABSTRAK

Latar belakang: Penularan hepatitis B dari ibu ke janin dapat menyebabkan risiko lebih dari 90% berkembang menjadi hepatitis B kronik pada bayi. Praktik kolaborasi interprofesi dapat mencegah dan mengurangi risiko transmisi serta meningkatkan keselamatan pasien. Tujuan: mengeksplor lebih mendalam dan mengetahui praktik kolaborasi interprofesi pada ibu bersalin dengan Hepatitis B di RSUD Imelda Pekerja Indonesia. Metode: Penelitian kualitatif ini menggunakan desain kasus tunggal terjal (embedded single case study) dengan 10 informan yang terdiri dari 1 dokter spesialis kandungan, 1 ahli teknologi laboratorium medis (ATLM), 1 apoteker, dan 6 bidan. Wawancara mendalam dilakukan untuk menggali informasi, dan data dianalisis menggunakan software NVivo 12 Plus. Penelitian ini menggunakan triangulasi data dari dokter, bidan, ATLM, apoteker, dan ibu bersalin dengan hepatitis,

*dianalisis dengan thematic analysis, analisis matriks, dan analisis pencocokan pola. Hasil: Penelitian ini mengidentifikasi alur kolaborasi dari IGD Kebidanan, farmasi, ruang bersalin, ruang nifas, hingga pemberian serum immunoglobulin Hepatitis B pada bayi di ruang neonati. Budaya kerja menunjukkan kepatuhan pada PPI dan pemberian serum pada bayi tepat waktu untuk pencegahan penularan. Dukungan institusi dan lingkungan mencakup penyediaan tanpa batas APD dan ketersediaan alat kesehatan. Nilai dan etika kolaborasi telah menjunjung tinggi hak privasi pasien dan saling menghargai antarprofesi. Hambatan termasuk kurangnya pelatihan bagi bidan dan tidak adanya SOP khusus untuk persalinan Hepatitis B. Harapannya adalah meningkatkan pemahaman bidan dalam edukasi dan pelatihan. Kesimpulan: Praktik kolaborasi nterprofesi di RSUD Imelda Pekerja Indonesia menunjukkan koordinasi dan kerja sama yang efektif antara dokter, bidan, ATLM, dan apoteker dalam menangani ibu dengan persalinan positif Hepatitis B, sesuai peran dan wewenang masing-masing.*

**Keywords:** Praktik\_Kolaborasi\_Interprofesi; Persalinan; Hepatitis B

## INTRODUCTION

WHO is optimistic that by 2030 it will eliminate hepatitis B from mother to child, simplified primary care services for viral hepatitis must ensure that pregnant women with chronic hepatitis B have access to treatment and receive vaccines as a preventive measure for their babies. <sup>1</sup> Planned delivery outside of hospital is a risk factor for not receiving the HBV dose for birth. <sup>2</sup> There were 7.89% of 15,641 pregnant women tested positive for HBsAg in China in 2020. Meanwhile in the UK there were 0.4% of pregnant women infected with chronic hepatitis B (HBV) and requiring services to prevent vertical transmission. Globally, an estimated 6.4 million (range = 4.4–10.8 million) children aged ≤5 years are living with chronic HBV infection. <sup>3</sup>

According to data from the Ministry of Health in 2022, there are 50,744 pregnant women infected or positive for hepatitis B in Indonesia. North Sumatra Province in 2022 North Sumatra is the 3rd province with the lowest number of Hepatitis B tests, namely (81.8%), 21.79% of pregnant women were screened, referred with reactive HBsAg (46.03%) and 256 babies born to mothers with Hepatitis B.. Medan City is one of the lowest districts for Hepatitis B screening targets in pregnant women.<sup>4,5</sup>

The bad impact for mothers infected with the Hepatitis B virus is the risk of liver inflammation and liver cancer, placental abruption and even the risk of postpartum hemorrhage and for babies born to mothers with hepatitis B, the risk in the next 5 years of developing hepatocellular carcinoma and liver cancer is 90%. premature birth and LBW LBW. <sup>6</sup> The government has established a National Program for Prevention and Control of the Hepatitis B Virus which focuses on preventing Mother to Child Transmission (PPIA), because 95% of the Hepatitis B virus is transmitted from mothers to babies who are born. <sup>6</sup>

Health workers who coordinate with each other and work together in a collaborative team can improve patient perceptions of the services provided during treatment. <sup>7</sup> Interprofessional collaborative practice is a collaborative relationship between professionals who are committed to improving patient health through efficient, effective preventive, curative, rehabilitative and palliative services. and fair. Interprofessional collaborative practices can improve patient safety. <sup>8</sup>

Research in America shows how to foster effective collaboration, namely by developing trust and respect, encouraging effective communication, and the need for clear guidelines that influence their job satisfaction and clinical outcomes in collaborative practice. <sup>9</sup> Research in Sweden states that midwives are independently responsible for normal birth care based on their own knowledge and experience as well as the expertise of the midwifery team.

However, the responsibility and independence of midwives are also often completely trusted by obstetricians even when midwives provide care during normal births. Obstetricians must trust midwives' evidence-based knowledge and competence to handle normal births. <sup>10</sup>

The formulation of the problem for this research is that based on a preliminary study conducted at the Indonesian Workers' Imelda RSU, there were 27 pregnant women infected with hepatitis B in 2023 at the IPI RSU and for January 2024 the number of pregnant women infected with Hepatitis B was 4 people. Interviews were conducted with 2 midwives in the Obstetrics Emergency Room and 2 people in the delivery room. From the results of the interview, it was said that interprofessional collaborative practice services for women giving birth with Hepatitis B between midwives in the Midwifery Emergency Room and the delivery room were still not good. The aim of this research is to explore in more depth and find out the practice of interprofessional collaboration in deliveries with Hepatitis B at RSU Imelda Workers Indonesia.

## **METHODS**

This research uses a qualitative research method with a case study approach by collecting data and information in depth, systematically and carefully. This research design is an embedded single case study and places a case as the focus of the research to increase understanding regarding the case raised. Researchers chose an embedded single case study (embedded single case study) because this research examines a case that contains more than one sub-unit of analysis (Obstetrics/PONEC ER, delivery room, surgical room, postpartum care room and healthy baby room) in order to add significant opportunities for broader analysis and develop a pertinent single case section and focus on interprofessional collaborative practice.

The sampling technique in this research used non-probability sampling with a purposive sampling strategy. The type of purposive sampling used in this research, heterogeneous sampling, is considered appropriate because the participants are selected based on research questions and inclusion and exclusion criteria to be able to provide data according to the research objectives and to be able to provide as much insight as possible regarding the phenomenon being studied by interviewing various types of informant subjects. The core criteria are health workers, namely obstetricians, pediatricians, midwives, nurses, anesthetists, ATMs and pharmacists involved in the management of Hepatitis B births who have worked for at least 1 year at RSU Imelda, Indonesian workers, women giving birth with Hepatitis who are willing to become a research informant.

In this research, researchers used semi-structured interview guide instruments, observation guidelines, recording equipment, logbooks, field notes. The validity test in this research uses the principle of trust (trustworthiness). There are four criteria for qualitative research rigour, namely credibility, transferability, dependability, and confirmability. The data analysis used in this research is qualitative analysis using the pattern matching analysis technique model. This is done so that researchers can compare their ideas or predictions with data that will be collected from interviews with health workers involved in giving birth with hepatitis B.

## RESULTS AND DISCUSSION

This research uses the theoretical lens of *The Sunnybrook Framework Of The Core Competencies For Interprofessional Team Collaboration* on the grounds that this framework is similar to the results of the author's research. *The Sunnybrook Framework Of The Core Competencies For Interprofessional Team Collaboration* explains that core competencies have been structured intentionally as collective competencies and designed to be applied to teams, as well as accompanying definitions of each competency and 19 related behaviors. The framework aims to support inter-professional collaboration which is placed at the center of the picture. These competencies include four domains that encompass interprofessional collaboration: (1) clinical and professional practice and care, (2) education, (3) research and quality improvement, and (4) leadership approaches. As part of the competency framework, interprofessional services are defined as “working together to provide the highest quality services,” while interprofessional education is defined as “learning about, from, and with each other.”<sup>11</sup>

### **Core competency: Communication**

Core competency: Communication defines how interprofessional teams strive to achieve shared understanding when communicating across roles and professions. The team is attentive to actively provide information and seek information from team members and other teams to ensure a thorough understanding of the situation. The team creates processes and tools and selects a variety of media/approaches to improve information exchange within and between teams. Develop specific and timely information exchange processes within and between teams and explicitly consider which members need to be involved in giving and receiving specific information and communicate using common language across roles and professions by avoiding jargon and acronyms, providing explanations and checking understanding.

Collaborative practice is carried out in accordance with the flow and SOP for interprofessional collaborative practice in childbirth with hepatitis B at the Imelda Hospital in Medan.

### ***Implementation Flow***

In this sub-theme, most informants shared similar responses. They described the process for mothers with Hepatitis B, starting with an initial examination in the emergency room, blood sample collection, and communication with the delivery room for further observation. After birth, the baby is placed in the neonatal room, and the pharmacy provides the Hepatitis B vaccine and prepares documents for submission to the Medan City Health Office. Below are statements from the informants:

*”..selama ini pasien pertama dari IGD Bidan, kalau hasil Hepatitis B nya positif mereka langsung konfirmasi VK, dan kami juga sudah pastikan lagi kalau dokter penanggung jawabnya sudah tau. Nah setelah pasien tiba di ruangan VK ya seperti biasa saja sih dek,, nggak ada perbedaannya (IF.2.Kepala Ruangan Bersalin)*

*”Pasien dengan ibu positif hepatitis B pegawai igd kebidanan melaporkan ke ruang bayi bahwasanya ada ibu dengan Hepatitis B kemudian menyiapkan serum untuk bayinya. antar tenaga kesehatan saling mengingatkan begitupun yang di VK”(IF.4.Kepala Ruangan Neonati)*

The flow of interprofessional collaborative practice in giving birth to mothers with hepatitis B at the Imelda Hospital in Medan, pregnant women who come to the hospital go directly to the emergency room, all initial examinations are carried out at the emergency room, such as taking blood samples by laboratory staff, the laboratory department contacts the emergency department to notify the results , the emergency room department contacts the delivery room/VK section for further observation whether the delivery is normal or surgical, after the baby is born, the baby is placed in the neonate room and for availability of hepatitis B vaccine to be provided by the pharmacy department along with preparing complete documents to be submitted to the health service Medan city. Babies are given the vaccine only once before 24 hours after birth. In the last year, there was a case of a mother whose birth was positive for hepatitis B which had not been previously detected. This was based on the fact that when the patient came to the emergency room at Imelda Hospital in Medan, the patient had already opened completely so that the blood sample from the laboratory had not yet

come out. The patient had already been handled in the room. labor. However, after the lab results came out and it was stated that the patient was positive for hepatitis B, the patient was still treated as best as possible so that the patient did not panic and the baby was immediately given the hepatitis B vaccine.

Collaborative interprofessional practice involving obstetricians, midwives, and family physicians in intrapartum care has been shown to improve clinical outcomes in terms of patient safety.<sup>12</sup> Support from hospital management as a factor influencing patient safety culture in hospitals.<sup>13</sup>

#### ***SOP for Hepatitis-B Delivery***

In this sub-theme, the informants explained the standard operating procedures (SOP) for managing mothers in labor with Hepatitis B at the hospital. Below are some statements from the informants:

*”Kalau untuk SOP khususnya tidak ada, tapi prosedurnya sama seperti persalinan lainnya tapi lebih ditekankan dengan APD nya harus lengkap”(IF.1.Ketua Sasaran Keselamatan Paien)*

*”Tidak ada kebijakan khusus”(IF.2.Kepala Ruangan Bersalin)*

There is no specific SOP for giving birth to mothers with hepatitis-B at the Imelda Hospital in Medan, but the procedure is still carried out in accordance with standards of birth care and prioritizing completeness of PPE and the baby after birth is immediately given hepatitis B immunoglobulin serum (HBIG) and monovalent hepatitis B vaccine. The Ministry of Health has made various efforts to overcome hepatitis B, including administering 1 dose of hepatitis B vaccine to newborns aged 0 or less than 24 hours, followed by the next dose of hepatitis B vaccination in accordance with the immunization program.<sup>14</sup>

#### **Core competency: Role clarification**

Interprofessional teams ensure that members understand each other's roles, scope, and expertise. Their team explored the interdependencies between their roles and optimized the scope of each member by considering repetition and redundancy. Members can articulate their role and/or scope of practice to others on the team. Members actively seek understanding of the roles of others on their team. members are aware of their limitations and consult with each other appropriately based on knowledge, skills, roles, and scope. The research results showed

that the implementation of collaborative Hepatitis-B delivery practices was carried out in accordance with their respective roles and responsibilities.

### ***Roles and Responsibilities of Health Workers***

Patient-centered care and patient participation are two closely related concepts. Both include deep respect for the patient, caring for the patient in their own way, recognizing the patient's wishes in a responsible manner, and viewing the patient as a resourceful individual. <sup>15</sup>

In this sub-theme, the roles and responsibilities of each healthcare worker in managing mothers with Hepatitis B during labor are described. Each healthcare staff member involved in the care of patients delivering with Hepatitis B has been interviewed, and the majority of informants stated that they performed their duties according to their respective roles and responsibilities. This is evidenced by the following statements:

*”...dari IGD Kebidanan perannya itu segera memberitahukan dokter dulu jika hasil laboratorium sudah keluar, kemudian beritahu keluarga. Dan jika di pindahkan ke ruangan operasi ya wajib beritahukan pegawainya dan begitu juga ke ruangan lainnya. Kemudian pihak farmasi dilaporkan juga dan segera memberikan berkas-berkasnya. Begitu aja sih, yang paling penting komunikasi harus bagus”(IF.1.Ketua Sasaran Keselamatan Paien).*

#### ***Obstetrician (OB-GYN)***

According to the statement, the first person involved in managing cases of Hepatitis B is the doctor, as evidenced by the following statement:

*“Yang terlibat yang pertama harus dokter, bidan dan pastinya keluarga, pastinya mereka sudah melakukan pemeriksaan, sampai di vk mungkin pada saat menolong persalinannya ya peran masing2 menolong kan ga bisa satu orang mungkin dua orang harus mendampingi ibu untuk persalinan” (IF.3.Dokter Spesialis Kandungan)*

Obstetrician and gynecologist (OB-GYN) specialists have an important role in preventing mother-to-child transmission (MTCT). To provide optimal care to pregnant women who are carriers of HBV, OB-GYNs need appropriate knowledge, education, and practice in the management of these patients. Obstetricians also provide overall care and *advice* to midwives and collaborate with each other by prioritizing the quality of patient safety and patient satisfaction during hospital treatment. <sup>7</sup> and has the authority to carry out joint care with a specialist in internal medicine or postnatal

hepatologist in following up the treatment of hepatitis B. The Centers for Disease Control and Prevention and the *American College of OB-GYNs* (ACOG) have published recommendations for HBV screening in pregnant women. <sup>16</sup>

#### *Midwife*

Since the patient first arrives in the emergency room, the initial handling is performed by the midwife on duty in the emergency department. After the initial examination, the midwife then takes the next steps by contacting other involved departments:

*”Kalau IGD itu penanganan awal, kalau Vtk itu, contohnya harus sudah dipantau ketat misalkan sudah ada tanda2 persalinan, di observasi diruangan vtk” (IF.5. Bidan Pelaksana IGD)*

Midwives have an important role in assisting births with Hepatitis B. Midwives' compliance in using PPE during delivery assistance can prevent transmission of Hepatitis B. For this reason, midwives must have a good understanding of the transmission of the hepatitis B virus to health workers and to newborn babies. <sup>17</sup> Midwives also have an important role in caring for people with HBV infection. They provide support during treatment and education about the nature of the disease, diagnosis, prevention, and timely administration of immunoglobulin. To implement an effective management plan, midwives must have a basic understanding of the disease and its implications for the patient. <sup>18</sup>

#### *ATLM (Laboratory Officer)*

Laboratory workers play an important role in hepatitis B births because they are an important part of programs to prevent the transmission of HIV, syphilis, and hepatitis B. These workers play an important role in achieving the goal of eliminating hepatitis B by integrating hepatitis B prevention and control efforts. <sup>19</sup> Results examination of the mother's blood sample for HBsA (+) which will then follow up on giving antivirals and immunoglobulin to the newborn. <sup>20</sup>

#### *Pharmacist*

Pharmacists are professional health workers who should play a role in assisting the government's efforts to create a healthy and independent Indonesian society. The pharmacist's role is based on the knowledge the pharmacist has about pathophysiology, medications that are needed or should be avoided by the patient. <sup>21</sup> The involvement of pharmacists also helps improve access to vaccination services, increases public awareness, and contributes to achieving higher vaccination coverage rates. The CDC ( *Centers For Disease Control* ) recognizes pharmacists as providers of immunization,

and they have been identified as stakeholders to help mitigate the hepatitis B crisis. Pharmacists will be given information by Midwives who assist with Hepatitis B births for the preparation of immunoglobulin serum given to newborns. <sup>21</sup>

### ***Decision-making***

This sub-theme explains the decision-making process in managing mothers in labor with Hepatitis B. Below are some explanations from the informants:

*“Kalau keputusan bersama itukan ,maksudnya apakah lahir normal atau operasi gitu kan, kalau dari IGD kebidanan itu masih bisa diupayakan normal kita observasi di ruang VK, kalau udh buka 4, kalau masih buka 1-3 itu di ruang melati atau kemuning, tapi jika tidak memungkinkan untuk normal kita beritahukan dokter” (IF.2.Kepala Ruang Bersalin)*

As a result of the research, information was obtained that decision making in the treatment of birthing patients with hepatitis-B was carried out in accordance with the results of the patient's diagnosis, and was decided in deliberation by the doctor and midwife in charge. Patients and healthcare professionals in palliative care often face high-stakes treatment decisions. <sup>22</sup> Patient-centered care and respecting patient autonomy, SDM is also associated with positive patient outcomes such as higher satisfaction with decisions and trust in physicians. <sup>23</sup>

### **Core competency: Interprofessional values and ethics**

Interprofessional teams create a climate of transparency, openness, and a willingness to collaborate. The team maintains an inclusive approach and every team member's perspective is valued. Members speak in a positive light when discussing other roles and professions. Create a safe environment for all members to speak up and advocate when necessary. Consider the values and ethics of the organization, governing body, and individual members in team discussions. Values and Ethics in the practice of interprofessional collaboration are very necessary in an action to get maximum results. Good communication between health workers is very necessary in collaborating and the responsibility of health workers in maintaining patient privacy is a patient's right and the ethics of health workers.

### ***Communication between health workers***

In this sub-theme, the informants expressed communication strategies among healthcare workers, both verbal and written, when interacting with mothers in labor who have Hepatitis B. Below are statements from the informants:

*”Setiap pasien dengan Hepatitis B, kita akan beritahukan kepada petugasnya, misalnya keruang bersalin, sama dengan hal nya kalau pasien akan dioperasi, kemudian kita beritahu juga keruangan bayi tersebut untuk menyediakan vaksin tersebut”(IF.1.Ketua Sasaran Keselamatan Pasien)*

Based on the results of the research, information obtained from health workers said that communication between health workers and patients is very important in handling patients who are declared positive for hepatitis B for the safety of patients and health workers. In this case, the communication carried out by health workers has gone well and is in accordance with the results of the patient's initial diagnosis first came. Meanwhile, to support the implementation of interprofessional collaboration, it is a communication tool that can comprehensively unite patient health service data as a source of information for each profession in decision making.

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Communication that occurs between health workers will be more effective if communication is open, empathetic, mutually supportive, positive and equal between health workers. Communication skills are fundamental in efforts to resolve patient problems and facilitate the provision of support in both medical and psychological services.<sup>25</sup>

### ***Maintaining Patient Privacy***

This sub-theme describes the patients' rights and the responsibilities of healthcare workers to maintain patient privacy regarding their conditions and to ensure that patients with Hepatitis B are not discriminated against compared to those without the virus.

*“Kalau untuk penyampaian hepatitis ke ibunya yang kita sampaikan tentang kondisi bayi dan apa yang dilakukan pada saat di rumah untuk bayinya”(IF.4.Kepala Ruangan Neonati)*

Based on the research results, the theme was found to be about maintaining patient privacy, in this case describing the patient's rights and the responsibility of health workers to maintain patient privacy and not distinguish between patients who are positive for hepatitis B and normal patients. The results of a statement from one of the patients with a positive history of giving birth to hepatitis-B, revealed that she felt unaccepted because she was prohibited from breastfeeding her baby directly. Privacy refers to individual rights and has been highlighted as a human right of every individual. Privacy in the healthcare context implies that patients should have control over how their medical records are used through providing consent.<sup>26</sup>

Patients also have the right to access and correct their personal information. In this context, privacy is the patient's personal right to have full control over his or her data. <sup>27</sup> Confidentiality is an extension of privacy and primarily refers to the protection of information, especially sensitive clinical data. Special efforts to protect it and be aware of Hepatitis B with special efforts to prevent it by screening pregnant women before 24 weeks of gestation. Special protection efforts also aim to determine the immunization status of pregnant women. <sup>28</sup>

### **Core competency: Shared decision-making**

Interprofessional teams decide on plans collaboratively. Team members gather to determine the appropriate course of action. If necessary, the team decides who will make the final decisions and who is responsible for what tasks. Creates and implements an interprofessional care plan that reflects what is most important to the patient and family/customer. Collaboratively decide on learning goals shared between roles and professions. Identify and assign accountability for all aspects of work especially when there are overlapping roles. Based on the results of the analysis of informant interviews, it was found that work culture is often carried out when collaborating with health workers. The work culture in this research is the attitude towards infection prevention and control.

### ***Infection Prevention and Control (PPI)***

In the management of Hepatitis B deliveries, the proper disposal of infectious waste is crucial, with healthcare workers required to use yellow bins for waste disposal. Midwives and responsible doctors only use personal protective equipment (PPE), such as masks, aprons, and gloves, during examinations and normal deliveries. Below are statements indicating that the PPE used is the same as that for other patients:

*”untuk di IGD sih seperti biasa ya, kita harus menggunakan APD, untuk prosedurnya sama dengan pasien yang lain, namun dengan Hepatitis B, bayi tidak dianjurkan untuk disusui...” (IF.1.Bidan Pelaksana dan Ketua SKP)*

PPI is included in the work culture theme because it is still found that midwives still use PPE such as handscons, aprons and sometimes masks. However, proper waste disposal and hand washing have been carried out well. Work culture also involves ethics/morals which are produced through collaboration between health workers. An evidence-based work culture will produce higher job satisfaction and improve service to patients. <sup>11</sup> The work culture of midwives in PPI is still less concerned if they have had contact with the blood of patients with Hepatitis B. In fact, no one has reported the incident, because they think that if there are no

wounds and they have been washed clean then there is no need to be evaluated by the management team

### ***Structure and Governance of Interprofessional Collaborative Practice***

The structure in the hospital regarding the management of Hepatitis B deliveries is carried out strictly according to the primary duties of each department, with no specific regulations from the hospital administration. In terms of governance for Hepatitis B deliveries, only Hepatitis B immunoglobulin serum and PPE are provided according to departmental requests. There is no difference in the availability of facilities, such as PPE, for Hepatitis B patients. Below is a statement from informant (IF.1):

*”ya sama aja dengan persalinan biasanya, paling yang membedakan hanya pemakaian APD lengkap dan juga lebih ke pencegahan infeksi juga” (IF.1.Bidan Pelaksana dan Ketua SKP)*

*” Kalau struktur khusus pertolongan Hepatitis B nggak ada, yang seperti kakak jelaskan tadi, pasien itu sudah tahu hasil darahnya ya mulai dari IGD Kebidanan, dan untuk yang lainnya sudah diinfokan dari IGD langsung. Jadi intinya begitu hasil darah keluar jika positif wajib memberitahukan ke dokter kandungannya, kalau dokter anak sih nggak pernah diberitahu” (IF.2.Kepala Ruangan Bersalin)*

The structure of handling labor with Hepatitis B in this study was no different from other maternity patients. The head of the room is the person responsible for each room who is able to ensure all the facilities and needs of the patient. Meanwhile *Clinical Instructor* (CI) is the person responsible for each shift. Clinical leadership/head of room is a person who is able to help employees by guiding and demonstrating professional standards and always carrying out controlled evaluations during office hours. An attitude of mutual support, respect and understanding in the workplace is essential for midwives, as are adequate staffing levels, teamwork and opportunities for further education.<sup>29</sup>

Management in the practice of interprofessional collaboration in this study found one incident where laboratory staff were late in notifying that the patient had Hepatitis B which could reduce patient satisfaction and the performance of health workers, but this was not disputed because midwives adhered to the use of PPE. Health workers in providing care must be multidisciplinary with the aim of increasing job satisfaction and teamwork for the health care staff involved.<sup>29</sup> Institutional support in this research is by providing complete PPE which

can be used in each room and according to needs, while environmental support is by having officers collecting infectious waste.

### **Core competency: Interprofessional conflict resolution**

Interprofessional teams respond to anticipated or occurring conflict situations with appropriate and skilled interventions in a timely manner by collaborating to create a set of solutions. Identify and proactively and effectively resolve team conflicts within and between teams. Listen with an open mind to various opinions and ideas from various roles and professions. Discusses difficult team issues and reaches mutually agreeable solutions. As the results of the research found several obstacles in Interprofessional Collaborative Practice in Childbirth with Hepatitis B.

### ***Non-compliance with the use of PPE***

The PPE used in the hospital is the same as that for other patients. The non-compliance referred to is when healthcare workers only use regular gloves and do not wear aprons. Below is a statement from informant (IF.2):

*” ... jadi waktu itu duluan lahir anaknya baru keluarlah hasil lab nya, ternyata Hepatitis B,, ya untungnya gk ada luka juga” (IF.2.Kepala Ruangan Bersalin)*

This research still found that midwives involved in assisting births for mothers with Hepatitis B did not use complete PPE, and only used gloves, aprons and even masks occasionally. Meanwhile, assisting with Hepatitis B delivery carries a very high risk of transmitting HIV to health workers through blood contact. For this reason, it is important to provide basic or refresher training for health care workers regarding blood-borne infections and effective prevention methods according to the level of PPE that is effective in assisting with Hepatitis B births. <sup>30</sup>

Attitudes and practices regarding infection protection and vaccination are still important to develop among health workers. <sup>30</sup> The use of PPE is not only used by health workers, but waste workers must also be obedient in using PPE because there is a higher risk of exposure to patient blood and body fluids. <sup>31</sup>

### ***Lack of management support***

The lack of management support observed in the hospital is the unavailability of Hepatitis B immunoglobulin serum for newborns. As a result, if a mother gives birth on a holiday, the pharmacy will borrow from another pharmacy or a partnering hospital. Below is a statement from informant (IF.8):

*“hambatan kalau disini paling kalau bayinya lahir di hari sabtu atau minggu, jadikan dinkes tutup, nah serumnya itu kan nggak ada distok di apotek kami, jadi kami itu sibuk nelpon rumah sakit supaya pinjam dulu gitulah kak” (IF.8.Apoteker)*

Based on the results of this study, it shows that midwives who assist with vaginal births still comply with normal delivery care standards, meaning that the SOP does not have any special differences with patients who are positive for Hepatitis B. This can affect the safety culture of patients, families and health service providers, which is an important component in providing quality health services, so you must take actions that are safe for yourself and safe for the environment. <sup>32</sup>

Using a participatory approach and input from stakeholders, several implementation strategies were produced to instill competency throughout the hospital environment. The implementation strategy avoids a top-down approach and aims to entrust ownership and encourage use of the framework by formal and informal clinical and non-clinical leaders. For example, staff from each clinical area became familiar with the competencies in small group sessions using interactive games. Together with members of the interprofessional education committee, unit staff participated in interactive games by rolling dice, discussing competencies, and explaining examples of how their teams could apply whatever competencies appeared on the dice to win prizes.

### **Core competency: Reflection**

Interprofessional teams learn from their history and experiences. Team reflection is process and performance oriented. Team members identify what they have done well and what can be improved. They are thoughtful in optimizing how they interact with each other and the impact their team function has on patient care/collective work. Dedicate time for ongoing team reflection. Develop processes and tools to support ongoing team reflection. Identify successes and gaps regarding their collaborative work and celebrate or strategize accordingly. Uses the concepts of team development and team dynamics to assess their performance collectively. The following are the results and expectations in the Interprofessional Collaborative Practice in Childbirth with Hepatitis B at the Imelda Hospital in Medan.

The results of this research show that the practice of interprofessional collaboration in handling the birth of mothers with Hepatitis B is good in communication, but there are still inappropriate use of PPE during delivery assistance or when carrying out medical procedures. Meanwhile, in previous research in Vietnam, midwives always consistently used handsoons when giving injections and other medical procedures . Mothers who give birth are also less

satisfied with the service because they are not allowed to breastfeed. While previous research stated that giving breast milk does not transmit the Hepatitis B virus to babies, what needs to be considered is correct and careful breastfeeding techniques.<sup>33</sup>

Based on research in Beijing, it is said that giving colostrum from mothers who are positive for Hepatitis B does not increase the risk of Hepatitis virus infection in babies after receiving immunoprophylaxis<sup>28,2</sup>. Meanwhile, the results of this research still find that midwives and doctors do not provide complete or accurate information, so if this is not addressed, it will have a negative impact on the understanding of health workers in providing health care. Meanwhile, the hope in the practice of interprofessional collaboration in childbirth with hepatitis B is that it can improve human resources and teamwork

### ***Increasing human resources***

This was expressed by several informants as follows: IF.1:

*“Pengen juga ada pelatihan khusus penanganan Hepatitis B gitu dek” IF.1.Ketua SKP*

*” Harapannya pasti lebih meningkatkan kualitas bidan-bidan disini,, seperti adanya pelatihan khusus persalinan yang hepatitis B dan heemmm gimana untuk lebih paham saat memberikan penjelasan tentang penyakit Ibu nya gitu” IF.2.Kepala Ruangan Bersalin*

*” kolaborasi berjalan dengan baik dan bagus dan salah satu ada yang menyimpang pada saat akreditasi itu saja ....” IF.4.Kepala Ruangan Neonati*

Based on the results of this research, it is clear that it is important to train health workers, especially midwives, laboratory assistants and pharmacists regarding maternity patients with Hepatitis B. The use of PPE that is still very standard is also a problem that can pose a bad risk if health workers are exposed to the blood of patients who are about to give birth. Health care directors and policymakers must work together to improve patient safety culture, and it would also be better to create an error-free environment.<sup>32</sup> For this reason, it is necessary to develop policies and strategic planning efforts in collaboration with training and multidisciplinary institutions to improve performance.<sup>34</sup>

Midwives require regular training and continuing professional education to update their knowledge of HBV transmission mechanisms and treatment options available for HBV-infected pregnant women. Providing immunization training for HBV-infected mothers for

midwives and staff is very important so that they can provide complete education and reduce maternal and infant morbidity rates.<sup>35</sup>

### **Teamwork**

Team collaboration in the management of deliveries with Hepatitis B involves midwives, pharmacists, and obstetric specialists. Below is a statement from informant IF.1:

*” selama diruangan VK ini dek hemm kerjasama kita sudah cukup baik lah, tapi harus tetap saling mengingatkan satu sama yang lain untuk penjelasan serum, karena itu yang sering hampir lupa”.*

#### **IF.2.Kepala Ruangan Bersalin**

*” igd bidan itu pastinya memberikan berkas-berkas untuk kami serahkan ke dinas kesehatan. Kalau Bidan neonati itu hanya mengingatkan kembali, mengarmprah serum dan melampirkan hasil print laboratoriumnya”.*

#### **IF.5.Apoteker**

Teamwork in this research was quite good and focused more on effective communication techniques. And in the birthing room, all midwives have carried out their duties and responsibilities in accordance with the doctor's recommendations and worked according to their competence. Based on the results of interviews with midwives who helped give birth to mothers who were positive for Hepatitis B, it was revealed that obstetricians were also very cooperative in monitoring the patient's condition during the birth process.

Teamwork is not good if midwives do not remind each other and blame each other if there are errors in communicating with patients and families. Disagreements or discrepancies in opinion during providing midwifery care can reduce performance and satisfaction. Mechanisms to improve coordination and collaboration among health care teams in these settings need to consider contextual dynamics including institutional culture while also targeting team-level process improvements including leadership development and expanding space for more interaction and better communication.<sup>36</sup>

Core conclusions from *the Framework Sunnybrook* for interprofessional team collaboration sets minimum expectations for teamwork and builds a shared vocabulary that can be used to describe interprofessional collaboration. This competency emphasizes building high-performing teams and supports collaboration across diverse teams and environments throughout the continuum of care. By creating recognizable behaviors among team members, competencies become valuable in both collaborative practice, labeling and building success; and in the absence of collaborative practices, to identify opportunities for improvement and

provide a roadmap to achieve goals. This *framework* can also support hospitals undergoing accreditation and subject to standards that require evaluating the effectiveness of collaboration and team functioning and identifying opportunities for improvement. Additionally, implementation of this framework can empower healthcare organizations to exceed these standards to support the delivery of high-quality services that can better anticipate and meet the needs of patients and their families.

## CONCLUSION

Interprofessional collaboration in childbirth with Hepatitis-B involves several coordinated steps. Upon the pregnant woman's arrival in the emergency room, the laboratory takes blood samples. Once the results are ready, the lab informs the midwife, who relays the results to the obstetrician and the VK room team. The VK team monitors labor progress using full PPE. After birth, the baby is transferred to the NICU and given immunoglobulin serum from the pharmacy. The pharmacy also handles the paperwork for obtaining the serum from the Medan Health Service. Doctors, midwives, lab technicians, and pharmacists work together based on their professional roles. One challenge is the limited availability of immunoglobulin serum, which cannot be stocked in the hospital and must be obtained during the Medan Health Service's working hours. Health workers hope for easier access to this serum. The collaboration in these cases is successful, but improvements in updated midwifery knowledge and compliance with PPE standards are needed, recommendation for Healthcare workers should update knowledge and comply with PPE standards; postpartum Hepatitis B mothers are advised to follow up for referrals and vaccinations; research institutions should stock immunoglobulin serum and train staff for Hepatitis-related childbirth.

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## ETHICS OF STUDY

This study has received ethical clearance from the ethics commission of the University 'Aisyiyah Yogyakarta (ethical approval number 3637/KEP-UNISA/V/2024). And Informed consent was obtained from all individuals included in this study.

## CONFLICT OF INTEREST

The researcher has no personal or institutional conflicts of interest that might be deemed to inappropriately influence the representation or interpretation of reported research results.

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## AUTHOR'S CONTRIBUTION

Making proposals, instruments, managing ethical clearance, permits, data collection, data processing and analysis, reporting results, results seminars, publications and compiling outputs by YS; S and SRN, guiding the preparation of proposals, data collection audit trails, data analysis, preparation of reports and manuscripts, modules and publications. YS = Yohana Samosir, S = Sulistyaningsih, SRN = Sri Ratna Ningsih.

## CORRESPONDENCE

Correspondence concerning this article should be addressed to Yohana Samosir, Faculty of Health Sciences, University of 'Aisyiyah Yogyakarta, Indonesia. Email: yohanasamosir2003@gmail.com

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