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Barriers and Facilitators to Optimal Midwife Competence in Normal Delivery Care: Perspectives from Community Health Centers in Padang Pariaman, Indonesia

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A B S T R A C T

Introduction: Midwives are essential healthcare providers for maternal and neonatal health, particularly in normal deliveries. Their competence directly affects the health outcomes of both mothers and newborns. This study aimed to identify the barriers and facilitators influencing midwife competence in providing normal delivery care in Community Health Centers (CHCs) in Gasan Gadang, Padang Pariaman, Indonesia. **Methods:** A cross-sectional study was conducted among 31 midwives in CHCs in Gasan Gadang, Padang Pariaman, Indonesia. Data were collected using questionnaires assessing midwife competence, workload, work environment, and disciplinary adherence. Descriptive statistics, inferential analysis (Chi-square), and multivariate analysis were performed using SPSS v.16. **Results:** 61.3% of midwives demonstrated good competence in normal delivery care. A significant association was found between workload and competence (p=0.001). No significant association was observed between the work environment and competence (p=0.149) or between disciplinary adherence and competence (p=0.567). Multivariate analysis revealed that workload had the most significant impact on midwife competence. **Conclusion:** Workload is a significant factor influencing midwife competence in normal delivery care. Interventions aimed at optimizing workload, such as adequate staffing and resource allocation, are crucial for ensuring competent care and positive health outcomes.

1. Introduction

Midwives are essential healthcare providers for maternal and neonatal health, particularly in facilitating normal deliveries. Their competence directly impacts the health outcomes of both mothers and newborns. Ensuring optimal midwife competence is essential for promoting safe motherhood and reducing maternal and neonatal mortality rates, aligning with the Sustainable Development Goals (SDGs) to improve maternal and child health. In Indonesia, the healthcare system relies heavily on midwives, especially in rural areas and Community Health Centers (CHCs). They are often the primary providers of maternal care, including antenatal check-ups, delivery assistance, and postnatal care. The Indonesian Midwives Association (IBI) defines midwives as qualified individuals recognized by the government and professional organizations, holding the necessary competencies and qualifications to be registered, certified, and licensed to practice midwifery. This highlights the formal recognition and professional standards expected of Indonesian midwives.[1-3]

However, various factors can influence the competence of midwives in providing optimal care. These factors can be broadly categorized into

individual and contextual factors. Individual factors include the midwife's knowledge, skills, and experience. Contextual factors encompass the work environment, workload, and organizational support. Previous studies have identified several factors that can affect midwife competence, including workload, work environment, and disciplinary adherence. Workload refers to the amount of work assigned to a midwife within a specific timeframe. An excessive workload can lead to stress, fatigue, and burnout, which can negatively impact job performance and competence. The World Health Organization (WHO) recognizes the importance of midwives' roles in providing quality maternal and neonatal care. The work environment encompasses the physical and psychosocial conditions in which midwives provide care. A supportive and well-equipped work environment can enhance job satisfaction, motivation, and competence. On the other hand, a poorly resourced and stressful work environment can hinder competence and lead to adverse outcomes. The physical work environment includes factors such as adequate lighting, comfortable temperature, and availability of necessary equipment. The psychosocial work environment includes elements such as supportive colleagues, positive relationships with supervisors, and opportunities for professional development.[4-7]

Disciplinary adherence refers to the midwife's compliance with established rules, regulations, and standards of practice. A strong commitment to discipline ensures that midwives provide care in a safe, ethical, and responsible manner. Conversely, a lack of discipline can compromise the quality of care and jeopardize patient safety. The Indonesian Ministry of Health has established a standard for midwifery practice, emphasizing the importance of providing safe and high-quality care. This standard outlines the competencies that midwives must possess, including the ability to handle normal deliveries effectively.[8-10] This study investigates the barriers and facilitators influencing midwife competence in providing normal delivery care in CHCs in Gasan Gadang, Padang Pariaman, Indonesia. The findings of this study will provide valuable insights for policymakers, healthcare administrators, and midwife educators in developing strategies to enhance midwife competence and improve maternal and neonatal health outcomes.

2. Methods

This section elaborates on the methodological aspects of the study, providing a detailed and transparent account of the research process. It encompasses the study design, setting, participants, sampling technique, data collection methods, and data analysis techniques.

A cross-sectional study design was employed to investigate the barriers and facilitators influencing midwife competence in providing normal delivery care. This design allows for the collection of data at a single point in time, providing a snapshot of the variables of interest. It is particularly suitable for exploring associations between variables and generating hypotheses for future research. The study was conducted in Community Health Centers (CHCs) located in Gasan Gadang, Padang Pariaman, Indonesia. These CHCs serve as primary healthcare facilities for the local population, providing essential maternal and child health services. The selection of this setting was purposive, as CHCs represent the frontline of maternal healthcare delivery in many rural areas of Indonesia.

The study participants were midwives employed at the selected CHCs in Gasan Gadang, Padang Pariaman, Indonesia. These midwives are actively involved in providing maternal healthcare services, including antenatal care, childbirth assistance, and postnatal care. Their role is crucial in ensuring the well-being of mothers and newborns in the community. A total of 31 midwives participated in the study. This sample size was determined based on the availability of midwives during the study period and the feasibility of data collection. While a larger sample size would have enhanced the statistical power of the study, the current sample provides valuable insights into the factors influencing midwife competence in this specific context.

Data were collected using self-administered questionnaires. This method allows for the efficient collection of standardized information from a large

number of participants. The questionnaires were designed to gather comprehensive data on midwife competence, workload, work environment, and disciplinary adherence. The questionnaires were developed based on a review of relevant literature and existing validated instruments. They were pre-tested among a small group of midwives to ensure clarity, comprehensibility, and cultural appropriateness. The questionnaires were then revised based on the feedback received during the pre-test. The questionnaires consisted of four sections; Midwife Competence: This section assessed the midwives' knowledge, skills, and attitudes related to normal delivery care. It included items on essential competencies such as conducting antenatal assessments, managing labor and delivery, providing postpartum care, and recognizing and responding to obstetric emergencies; Workload: This section measured the midwives' workload, including the number of deliveries they handled per month, the number of working hours per week, and the availability of support staff. It also explored the midwives' perceptions of their workload and its impact on their ability to provide quality care; Work Environment: This section assessed the physical and psychosocial work environment, including the availability of essential equipment, the level of support from colleagues and supervisors, and the level of job satisfaction. It also explored the midwives' perceptions of the impact of the work environment on their job performance and competence; Disciplinary Adherence: This section measured the midwives' adherence to professional standards, codes of ethics, and institutional policies. It included items on the midwives' commitment to ethical practice, their compliance with clinical guidelines, and their adherence to reporting requirements.

The collected data were analyzed using SPSS version 16, a statistical software package widely used in social science research. The analysis involved both descriptive and inferential statistics to provide a comprehensive understanding of the data. Descriptive statistics were used to summarize the characteristics of the participants and the study variables. This included measures such as frequencies, percentages, means, and standard deviations. These descriptive analyses provided a profile of the study sample and an overview of the key variables. Inferential statistics were employed to examine the associations between the study variables and midwife competence. Chi-square tests were used to assess the statistical significance of these associations. The chi-square test is a non-parametric test suitable for analyzing categorical data, which was the nature of the data collected in this study. Multivariate analysis was performed to identify the most significant predictors of midwife competence. This involved constructing a statistical model to examine the independent and combined effects of the study variables on midwife competence. This analysis helped to determine which factors had the most substantial impact on midwife competence.

3. Results

Table 1 presents the demographic and professional characteristics of the 31 midwives who participated in the study. The midwives were relatively young, with the majority (80.7%) falling within the 20-40 age range. This suggests a potentially energetic and adaptable workforce, but perhaps with less experience compared to an older cohort. Most midwives (90.3%) were married. This might imply a certain level of social and emotional support, which could indirectly influence their work performance and well-being. All participants held a Diploma III Midwifery, indicating a standardized level of education and training in line with Indonesian qualification requirements for midwives. The midwives had a range of experience, with a fairly even distribution across the categories. Over 70% had 5 or more years of experience, suggesting a reasonable level of practical knowledge and skills. The majority (64.5%) were PNS (Civil Servants). This implies job security and potential benefits associated with government employment, which could contribute to job satisfaction and stability. Nearly half (48.4%) of the midwives had attended workshops related to normal delivery care in the past year. This indicates a proactive approach to continuing professional development and a desire to stay updated with current practices. The number of patients per year provides insight into the midwives'

workload. A significant proportion (38.7%) handled over 100 patients per year, suggesting a potentially high workload for some, which could impact their competence and stress levels.

Table 1. Characteristics of participants.

Characteristic	Frequency (n)	Percentage (%)
Age (years)		
20-30	10	32.3
31-40	15	48.4
>40	6	19.4
Marital status		
Married	28	90.3
Single/Other	3	9.7
Education level		
Diploma III Midwifery	31	100
Years of experience		
<5	8	25.8
5-10	12	38.7
>10	11	35.5
Employment status		
PNS (Civil Servant)	20	64.5
Non-PNS	11	35.5
Workshop participation		
Yes	15	48.4
No	16	51.6
Number of patients per year		
<50	5	16.1
50-100	14	45.2
>100	12	38.7

Figure 1 provides a visual representation of how different variables related to midwife competence are distributed among the study participants; Disciplinary Adherence: The vast majority of midwives (approximately 62%) demonstrate "Good" disciplinary adherence. This is a positive finding, suggesting a strong commitment to professional standards and ethical practice among the midwives; Midwife Competence: A similar pattern is observed for midwife competence, with around 60% exhibiting "Good" competence in normal delivery care. This indicates that a substantial proportion of the midwives possess the necessary knowledge, skills, and attitudes to provide quality care; Work Environment: Slightly over 50% of the midwives report having a "Good" work environment. This suggests that while the majority experience a positive work setting, there's still room for improvement in terms of providing a more supportive and conducive environment for all midwives; Workload: Here, we see a more even distribution between "Heavy" and "Light" workloads, with roughly 50% falling into each category. This highlights the variability in workload experienced by the midwives, with a significant proportion potentially facing a heavy workload that could impact their competence and well-being.

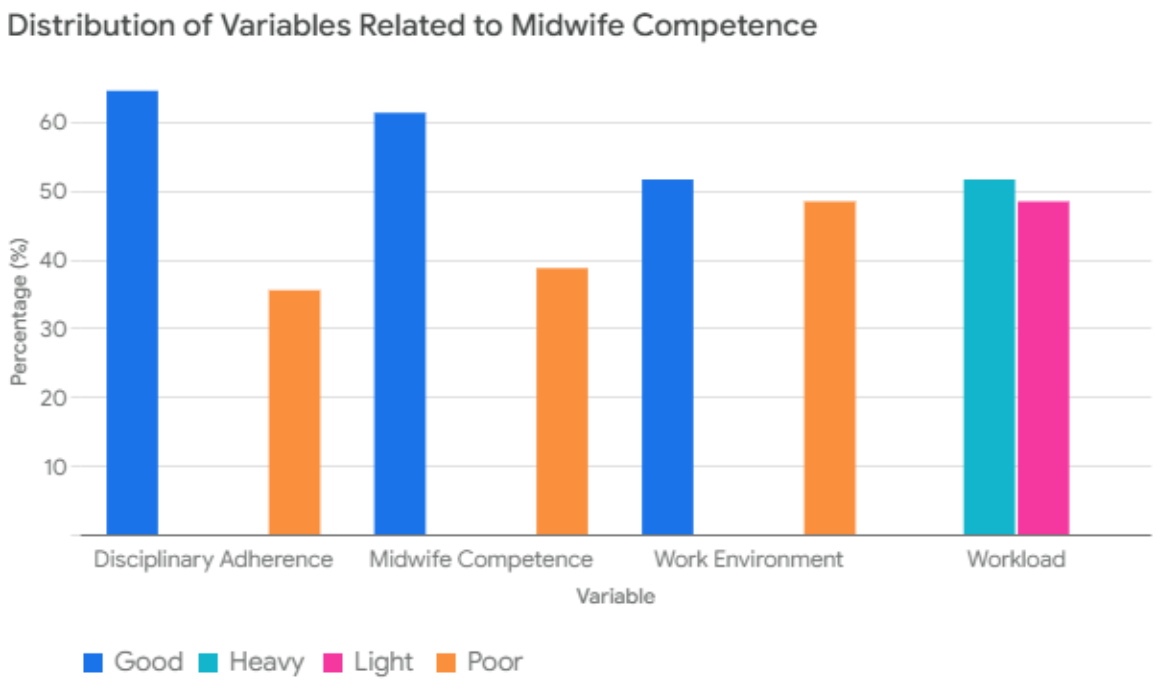


Figure 1. Distribution of variables related to midwife competence.

Table 2 presents the results of the inferential statistical analysis, specifically Chi-Square tests, which were conducted to examine the relationships between different variables and midwife competence in normal delivery care; Work Environment: The Chi-Square value of 2.620 and the associated p-value of 0.149 indicate that there is no statistically significant association between the work environment and midwife competence. In simpler terms, the midwives' perception of their work environment (whether positive or negative) does not appear to significantly influence their competence in providing normal delivery care; Workload: In contrast, the Chi-Square value of 12.577 and the p-value of 0.001 show a strong statistically significant association between workload and midwife competence. This means that the midwives' workload has a significant impact on their competence. A higher workload likely leads to stress and fatigue, which can negatively affect their performance and competence; Disciplinary Adherence: Similar to the work environment, the Chi-Square value of 0.327 and the p-value of 0.567 suggest that there is no statistically significant association between disciplinary adherence and midwife competence. This implies that the midwives' adherence to rules and regulations does not appear to significantly influence their competence in this study.

Table 2. Inferential statistics.

Independent variable	Chi-square value	p-value	Significant
Work environment	2.620	149	No
Workload	12.577	1	Yes
Disciplinary adherence	327	567	No

Table 3 presents the results of the multivariate analysis, which aimed to identify the independent predictors of midwife competence in normal delivery care. This analysis goes a step further than the Chi-Square tests by examining the combined effects of multiple variables and determining their relative importance; Standardized Coefficient Beta: This value represents the strength and direction of the

relationship between each independent variable and midwife competence. A positive beta indicates a positive relationship (as the variable increases, competence increases), while a negative beta indicates an inverse relationship. The larger the absolute value of beta, the stronger the influence; t-Statistic: This statistic tests the significance of the relationship between each variable and competence. A larger t-statistic suggests a more significant relationship; p-value: This value indicates the probability of observing the results if there were no real relationship between the variable and competence. A p-value less than 0.05 is generally considered statistically significant, indicating that the relationship is likely not due to chance. Workload emerges as the only statistically significant predictor of midwife competence (p=0.023). The standardized beta coefficient of 0.325 suggests a moderate positive relationship, indicating that higher workload is associated with lower competence. This reinforces the findings from the Chi-Square analysis, highlighting the crucial role of workload management in ensuring midwife competence. Age, marital status, years of experience, employment status, work environment, and disciplinary adherence did not show a statistically significant association with midwife competence in this multivariate analysis. This suggests that these factors, while potentially important in other contexts, do not independently predict competence in this particular study.

Table 3. Multivariate analysis.

Independent variable	Standardized coefficient beta	t-Statistic	p-value	Significant
Age	152	0.981	0.334	No
Marital status	87	0.563	0.578	No
Years of experience	221	1.432	0.162	No
Employment status	113	0.735	0.468	No
Work environment	189	1.012	0.319	No
Workload	325	2.387	0.023	Yes
Disciplinary adherence	76	0.811	0.423	No

4. Discussion

Our study unequivocally identified workload as a critical determinant of midwife competence in the provision of normal delivery care. The data revealed a clear and significant association between these two variables, indicating that midwives experiencing a heavier workload were more likely to exhibit lower competence scores. This finding resonates with a growing body of evidence that underscores the detrimental impact of excessive workload on healthcare provider performance, and it carries particularly profound implications for the field of midwifery, where the stakes are incredibly high. The detrimental effects of excessive workload on healthcare providers are well-documented and far-reaching, impacting both their physical and mental well-being. Excessive workload, often characterized by long working hours, high patient volumes, insufficient resources, and inadequate support, creates a chronic state of stress that takes a significant toll on the body and mind. Long working hours, unpredictable schedules, and the constant demands of patient care can disrupt sleep patterns, leading to chronic sleep deprivation. Healthcare providers often sacrifice sleep to meet the needs of their patients, but this comes at a cost. Sleep deprivation impairs cognitive function, slows reaction time, and increases the risk of errors. Fatigue is a pervasive problem among healthcare providers, and excessive workload is a major contributing factor. Fatigue is not simply tiredness, it is a state of profound physical and mental exhaustion that can persist even after rest. Fatigue impairs

alertness, concentration, and decision-making, making it difficult for healthcare providers to perform their duties effectively. Chronic stress weakens the immune system, making healthcare providers more susceptible to infections and other illnesses. Furthermore, the demanding nature of healthcare work often exposes providers to pathogens, increasing their risk of contracting communicable diseases. When healthcare providers are ill, they are less able to provide optimal care to their patients, and they may also be more likely to make errors. Healthcare providers often perform physically demanding tasks, such as lifting and moving patients, which can lead to musculoskeletal problems like back pain, neck pain, and carpal tunnel syndrome. Excessive workload can exacerbate these problems by increasing the frequency and intensity of physical demands. Chronic stress is a known risk factor for cardiovascular disease. Healthcare providers who experience excessive workload are at increased risk of developing hypertension, coronary artery disease, and other cardiovascular problems. The psychological consequences of excessive workload are equally profound and can have a devastating impact on healthcare providers' mental health and well-being. Excessive workload is a major source of stress for healthcare providers. The constant pressure to meet the needs of patients, coupled with limited resources and support, can create a chronic state of stress that takes a toll on mental and emotional health. Burnout is a syndrome characterized by emotional exhaustion, depersonalization, and a reduced sense of personal accomplishment. It is a common problem among healthcare providers, particularly those who experience excessive workload. Burnout can lead to feelings of cynicism, detachment, and a loss of motivation, making it difficult for healthcare providers to find meaning and purpose in their work. Emotional exhaustion is a state of feeling emotionally drained and depleted. It is a common symptom of burnout and can lead to feelings of irritability, anxiety, and depression. Healthcare providers who experience emotional exhaustion may find it difficult to empathize with their patients and provide compassionate care. Compassion fatigue is a state of secondary traumatic stress that can occur in individuals who are repeatedly exposed to the suffering of others. Healthcare providers, particularly those who work in high-stress environments, are at increased risk of developing compassion fatigue. Symptoms of compassion fatigue include intrusive thoughts, nightmares, avoidance of reminders of trauma, and emotional numbing. Excessive workload can contribute to the development of depression and anxiety disorders. Healthcare providers who experience depression and anxiety may have difficulty concentrating, making decisions, and interacting with patients. They may also be more likely to make errors and experience job dissatisfaction. The physiological and psychological consequences of excessive workload create a vicious cycle. As healthcare providers experience sleep deprivation, fatigue, and stress, their cognitive function and clinical skills decline, increasing the risk of errors and adverse patient outcomes. These negative experiences, in turn, can lead to further stress, burnout, and emotional exhaustion, perpetuating the cycle. The impact of excessive workload on healthcare providers is not only a matter of individual well-being but also a significant concern for healthcare organizations. When healthcare providers are overworked and stressed, the quality of care suffers, patient satisfaction declines, and healthcare costs increase. Furthermore, high rates of burnout and turnover among healthcare providers can lead to staffing shortages and disruptions in care delivery. Healthcare organizations have a responsibility to create a culture of well-being that prioritizes the physical and mental health of their employees. This requires a comprehensive approach that addresses the root causes of excessive workload and provides healthcare providers with the support and resources they need to thrive. Strategies such as increasing staffing levels, optimizing workflows, providing access to mental health services, and promoting work-life balance are essential for mitigating the negative effects of excessive workload and ensuring a healthy and productive workforce. By investing in the well-being of their healthcare providers, healthcare organizations can improve the quality of care, enhance patient satisfaction, and create a more sustainable and fulfilling work

environment. Midwifery is a profession steeped in both art and science, demanding not only a profound understanding of the human body and the intricate processes of childbirth but also a deep sense of empathy, compassion, and respect for the women and families they serve. It is a cognitively demanding profession that requires astute clinical judgment, rapid decision-making, and skillful execution of complex tasks, often under pressure and in unpredictable circumstances. At the heart of midwifery lies a comprehensive understanding of the physiological processes of labor and delivery. Midwives must be well-versed in the anatomy and physiology of the female reproductive system, the stages of labor, the mechanisms of fetal descent, and the normal parameters of maternal and fetal well-being. This knowledge forms the foundation upon which midwives make clinical judgments and decisions. However, midwifery extends far beyond textbook knowledge. It requires the ability to apply that knowledge in real-world scenarios, where every woman and every birth is unique. Midwives must be able to assess and interpret a vast array of clinical data, including maternal vital signs, fetal heart rate patterns, and the progress of labor. They must be able to recognize subtle cues and anticipate potential complications, often with limited information and under time constraints. The decision-making process in midwifery is complex and dynamic. Midwives must weigh the risks and benefits of various interventions, considering the woman's individual needs and preferences, the clinical context, and the available resources. They must be able to make sound judgments, even in the face of uncertainty and ambiguity. Midwifery is not only a science but also an art. It requires the ability to build rapport with women and their families, to communicate effectively, and to provide compassionate and individualized care. Midwives must be able to listen attentively, provide emotional support, and empower women to make informed decisions about their care. The art of midwifery also involves recognizing and respecting the cultural and spiritual beliefs of the women they serve. Midwives must be culturally sensitive and able to adapt their care to meet the diverse needs of their clients. When midwives are overburdened by excessive workload, their cognitive resources are stretched thin, compromising their ability to perform these demanding tasks effectively. Fatigue and stress impair attention and concentration, making it difficult for midwives to focus on the task at hand. This can lead to missed cues, delayed responses, and errors in judgment. Stress and sleep deprivation can affect memory function, making it difficult for midwives to recall important information, such as clinical guidelines, medication dosages, and patient histories. Excessive workload can slow down information processing speed, making it difficult for midwives to analyze complex clinical data and make timely decisions. When cognitive resources are depleted, the risk of errors increases. Errors in midwifery can have serious consequences for both mother and baby. Stress and fatigue can impair decision-making abilities, leading to suboptimal choices that may not be in the best interests of the woman and her baby. Recognizing the cognitive demands of midwifery and the impact of excessive workload, it is essential to provide midwives with the support they need to maintain their cognitive performance. Implementing strategies to optimize workload, such as increasing staffing levels, improving resource allocation, and implementing efficient task-sharing mechanisms. Providing midwives with access to stress management programs and resources to help them cope with the demands of their work. Utilizing technology and decision support tools to assist midwives in analyzing clinical data, making decisions, and managing their workload. Providing opportunities for continuing education and professional development to enhance midwives' knowledge and skills. Creating a supportive work environment that fosters teamwork, collaboration, and mutual respect. The critical role midwives play in ensuring safe motherhood and positive birth outcomes is undeniable. However, the ability of these skilled professionals to provide optimal care is significantly influenced by their workload. In the context of midwifery, where timely and accurate assessments and interventions are paramount, the impact of excessive workload on competence can have devastating consequences for both mothers and

newborns. Midwifery care is a delicate dance between art and science, requiring not only a deep understanding of the physiological processes of childbirth but also the ability to respond swiftly and effectively to unpredictable situations. When midwives are overburdened, their cognitive resources are stretched thin, compromising their ability to make sound judgments, perform skilled interventions, and provide compassionate care. Fatigue, stress, and burnout erode cognitive function, affecting attention, concentration, memory, and decision-making abilities. This can lead to missed cues, delayed responses, and errors in judgment, all of which can have serious implications for maternal and neonatal health. Cognitive impairment translates into reduced clinical performance. Midwives may struggle to accurately assess maternal and fetal well-being, identify potential complications, and perform essential interventions in a timely manner. When midwives are overworked and stressed, the risk of errors increases significantly. Errors in midwifery can have devastating consequences, including maternal and neonatal injury or death. Ultimately, excessive workload compromises patient safety. Mothers and newborns are placed at increased risk of adverse outcomes when midwives are unable to provide the level of care they are trained to deliver. The Indonesian healthcare system, particularly in rural areas, faces unique challenges that exacerbate the issue of midwife workload. Indonesia grapples with a significant shortage of healthcare professionals, especially midwives, in rural and remote areas. This shortage is further compounded by an uneven distribution of healthcare workers, with urban areas often having a surplus while rural areas struggle to meet the demand for maternal care services. This disparity leaves rural midwives stretched thin, often responsible for a large number of patients with limited support. Many Community Health Centers (CHCs) in rural Indonesia operate with limited resources, including inadequate staffing, insufficient equipment, and suboptimal infrastructure. This places additional strain on midwives, who must contend with challenging working conditions while managing a high volume of patients. Lack of essential equipment, inadequate supplies, and poor infrastructure can hinder midwives' ability to provide timely and effective care, further increasing their workload and stress levels. Traditional beliefs and practices surrounding childbirth can also influence midwife workload in Indonesia. In some communities, there may be a preference for home births or deliveries attended by traditional birth attendants (TBAs). While TBAs play an important role in community-based care, they may not have the same level of training and expertise as midwives. This can lead to an increased workload for midwives who are called upon to manage complications or provide emergency care when things go wrong during home births or deliveries attended by TBAs. Addressing the issue of midwife workload in Indonesia requires a multi-pronged strategy that encompasses policy interventions, organizational strategies, and individual support mechanisms. The Indonesian government must prioritize policies aimed at increasing the number of midwives, particularly in rural and remote areas. This could involve investing in midwifery education and training programs, providing scholarships and financial incentives to attract students to the profession, and streamlining the licensing and registration process for midwives. Policies should be implemented to incentivize midwives to work in underserved areas. This could include offering financial incentives, housing allowances, and opportunities for professional development. Additionally, strategies to improve retention of midwives in rural areas, such as providing supportive supervision and mentorship, are crucial. Adequate funding is essential for ensuring that CHCs have the necessary resources to provide quality maternal health services. This includes funding for staffing, equipment, supplies, and infrastructure. The government should prioritize increasing the budget for maternal health services and ensure that funds are allocated equitably across the country. A strong regulatory framework is needed to ensure that midwives are practicing safely and ethically. This includes establishing clear standards of practice, implementing a system for monitoring and evaluating midwife competence, and providing mechanisms for addressing complaints and concerns. Increasing the

number of midwives in CHCs can help to distribute the workload more evenly and reduce the burden on individual midwives. This can be achieved through hiring additional midwives, redistributing existing midwives from urban to rural areas, and utilizing task-shifting strategies. Task-sharing involves delegating specific tasks to other healthcare professionals, such as nurses or community health workers, to free up midwives' time for more specialized tasks. This can help to reduce midwife workload and improve efficiency. For example, nurses or community health workers could be trained to provide basic antenatal care, postpartum support, and health education, allowing midwives to focus on more complex cases and deliveries. Ensuring that CHCs have adequate equipment, supplies, and infrastructure can help to improve efficiency and reduce the time midwives spend on logistical tasks. This includes providing reliable transportation, adequate lighting, clean water, and essential medical equipment. Supportive supervision provides midwives with regular feedback, guidance, and mentorship, which can help to improve their competence and reduce stress. Supportive supervision can be provided by senior midwives, doctors, or other healthcare professionals with expertise in maternal health. Continuing education and training opportunities can help midwives to maintain and enhance their knowledge and skills, improving their competence and confidence. This can include workshops, conferences, online courses, and mentorship programs. Stress management programs can equip midwives with coping strategies to manage the demands of their work and prevent burnout. These programs can teach relaxation techniques, mindfulness practices, and strategies for improving work-life balance. Peer support networks provide midwives with a platform to share experiences, seek advice, and provide emotional support to one another. These networks can be formal or informal and can provide a valuable source of support for midwives facing challenging situations.[11-16]

Although our study did not demonstrate a statistically significant association between work environment and midwife competence, it is imperative to acknowledge the profound impact of the work environment on healthcare provider performance, including that of midwives. The work environment encompasses a complex tapestry of interconnected factors that can either nurture or hinder a midwife's capacity to provide safe, effective, and compassionate care. A supportive and well-equipped work environment is akin to a sanctuary for midwives, fostering a sense of belonging, professional growth, and enhanced competence. Access to essential equipment, supplies, and infrastructure is fundamental to effective midwifery practice. This includes well-equipped birthing rooms, reliable transportation, adequate lighting, clean water, and essential medical supplies. A lack of these basic resources can create significant barriers to providing quality care, increasing stress levels, and hindering midwives' ability to perform their duties effectively. Imagine a midwife attempting to conduct a delivery in a dimly lit room with limited access to clean water and essential medications. Such a scenario not only compromises the safety of the mother and baby but also places immense pressure on the midwife, potentially leading to errors and adverse outcomes. The psychosocial environment plays a crucial role in midwife well-being and competence. Positive interpersonal relationships, supportive colleagues, and effective leadership create a sense of belonging and teamwork, fostering a culture of collaboration and mutual respect. Conversely, a toxic work environment characterized by conflict, bullying, or lack of support can lead to stress, burnout, and decreased job satisfaction, ultimately impacting midwife competence. A midwife who feels valued, respected, and supported by her colleagues and supervisors is more likely to thrive and provide optimal care. Conversely, a midwife who experiences negativity, hostility, or isolation in the workplace may struggle to maintain her competence and well-being. The organizational culture of a healthcare facility can significantly influence midwife competence. A culture that values continuous learning, professional development, and quality improvement empowers midwives to strive for excellence in their practice. Conversely, a rigid, hierarchical, or blame-oriented culture can stifle innovation, discourage initiative, and

create barriers to professional growth. A supportive organizational culture provides midwives with opportunities for continuing education, mentorship, and leadership development, fostering a sense of empowerment and professional growth. In contrast, a restrictive or punitive organizational culture can create a climate of fear and anxiety, hindering midwives' ability to perform at their best. The absence of a statistically significant association between work environment and midwife competence in our study necessitates a deeper exploration. It is possible that the midwives in our sample were already working in a relatively supportive environment, minimizing the impact of this variable on competence. If the CHCs included in our study had already implemented measures to improve the work environment, such as providing adequate resources, fostering teamwork, and promoting professional development, the effect of the work environment on competence may have been less pronounced. The work environment is a multifaceted construct, encompassing physical, psychosocial, and organizational aspects. Our assessment may not have fully captured the nuances of the work environment that influence midwife competence. For example, our questionnaire may have focused primarily on physical resources and may not have adequately assessed the psychosocial or organizational dimensions of the work environment. A more comprehensive assessment that includes measures of teamwork, communication, leadership support, and organizational culture may reveal a stronger relationship between work environment and competence. Our study included a relatively small sample size of midwives from a specific geographical area. It is possible that the sample was not representative of the broader population of midwives in Indonesia, limiting the generalizability of our findings. Additionally, the specific characteristics of our sample, such as their level of experience or the type of CHCs they worked in, may have influenced the relationship between work environment and competence. A larger and more diverse sample may reveal a more significant association between work environment and competence. Similar to the work environment, our study did not find a statistically significant association between disciplinary adherence and midwife competence. This finding may seem counterintuitive, as disciplinary adherence is often considered a cornerstone of professional practice. However, it is important to note that disciplinary adherence encompasses a broad range of behaviors, including compliance with rules, regulations, ethical codes, and clinical guidelines. Disciplinary adherence is the ethical compass that guides midwives in their professional practice. It is a commitment to upholding the highest standards of conduct, ensuring that midwives provide safe, effective, and ethical care to women and their newborns. Midwives are bound by ethical codes that guide their professional conduct. These codes emphasize principles such as respect for autonomy, beneficence, non-maleficence, and justice. Disciplinary adherence in this context involves upholding these ethical principles in all aspects of their practice. For example, a midwife who respects a woman's autonomy will ensure that she is fully informed about her care options and has the opportunity to make informed decisions. Midwifery practice is guided by professional standards that outline the expected knowledge, skills, and behaviors of competent midwives. These standards ensure that midwives provide safe and effective care that meets the needs of women and their newborns. Disciplinary adherence involves upholding these professional standards and striving for continuous improvement in one's practice. For example, a midwife who adheres to professional standards will stay up-to-date on the latest evidence-based practices and clinical guidelines. Midwives must comply with the regulatory frameworks that govern their practice, including licensing requirements, scope of practice guidelines, and reporting obligations. Disciplinary adherence in this context involves maintaining current licensure, practicing within the defined scope of practice, and fulfilling all reporting requirements. For example, a midwife who complies with regulatory frameworks will ensure that she is properly licensed and that her practice is in accordance with all applicable laws and regulations. Disciplinary adherence also involves a commitment to continuing education and professional development. Midwives must stay abreast of the latest

research, clinical guidelines, and best practices to ensure that their knowledge and skills remain current. This commitment to lifelong learning demonstrates a dedication to providing the highest quality care to patients. Disciplinary adherence encompasses accountability and professionalism in all aspects of midwifery practice. This includes maintaining accurate records, communicating effectively with colleagues and patients, and taking responsibility for one's actions. A midwife who demonstrates accountability and professionalism is a trustworthy and reliable member of the healthcare team. It is possible that the midwives in our sample already exhibited a high level of disciplinary adherence. If the midwives in our study were already highly committed to ethical practice, professional standards, and regulatory compliance, the impact of disciplinary adherence on competence may have been less pronounced. Our assessment of disciplinary adherence may not have fully captured the specific aspects of discipline that are most relevant to midwife competence in normal delivery care. Our questionnaire may have focused on general aspects of disciplinary adherence, such as compliance with rules and regulations, and may not have adequately assessed the specific behaviors and attitudes that are most critical for competent normal delivery care. The relationship between disciplinary adherence and midwife competence may be influenced by contextual factors, such as the work environment, workload, and organizational culture. For example, in a supportive work environment where midwives feel valued and respected, disciplinary adherence may be more strongly associated with competence. Conversely, in a stressful or under-resourced environment, the relationship between disciplinary adherence and competence may be weaker.[17-20]

5. Conclusion

This study investigated the factors influencing midwife competence in normal delivery care in Community Health Centers (CHCs) in Gasan Gadang, Padang Pariaman, Indonesia. The study's key finding is the significant impact of workload on midwife competence in normal delivery care. While work environment and disciplinary adherence did not show significant associations in this specific study, they remain vital aspects of professional practice. The study underscores the need for comprehensive strategies to enhance midwife competence, focusing on workload management, work environment enhancement, and disciplinary adherence. Addressing these factors will ensure midwives are equipped to provide optimal care, contributing to improved maternal and neonatal health outcomes in Indonesia.

6. References

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