

## When Student Midwives Make Clinical Mistakes: A Qualitative Study in Brunei Darussalam

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### ABSTRACT

**Background:** This study aimed to understand how student midwives perceive clinical mistakes and describe how they are supported by healthcare professionals when mistakes are made.

**Methods:** The study adopted an exploratory qualitative research design with a sample of 9 undergraduate midwifery students from a higher institution in Brunei Darussalam. Data was collected through semi-structured online interviews with five open-ended questions.

**Results:** Three broad themes were identified, namely: (1) Clinical mistakes as lessons, (2) Toxic work environment, and (3) Value of appropriate guidance.

**Conclusion:** The findings indicate the student midwives' perceptions regarding mistakes encountered in the clinical setting. The student's capacity and motivation to learn were impeded by the unsupportive environment and unwelcoming attitudes demonstrated by certain midwives, including the mentors. However, they viewed clinical mistakes as opportunities to grow and learn. Furthermore, the students emphasised the significance of guidance and mentorship from clinical educators in developing proficient midwives. Thus, by recognising mistakes as learning opportunities and receiving the appropriate support from mentors, students may be better prepared to provide high-quality care for mothers and infants.

**Keywords:** Midwifery; Mentors; Students; Working conditions; Delivery of health care; Motivation

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## INTRODUCTION

Clinical mistake is any error in conduct or judgment in the clinical environment. It can involve mistakes in decision-making, verbal communication, or practical skills (1). Errors are often recognised as opportunities for growth and learning (2). However, whether or not it is evident or adversely impacts the patient, a clinical error is an avoidable, unfavourable outcome of medical treatment (3). Among the problems that occur while providing health care in the midwifery profession are, first, midwives frequently practice and make autonomous decisions. As a result of this independence, they are held accountable for clinical mistakes (4). It was revealed that newly recruited midwives are reluctant to take responsibility and make decisions on their own. This may be explained by students' inability to make critical decisions while training (4). Consequently, students may need to be adequately taught the necessary skills and awareness to make crucial decisions, further contributing to poor clinical outcomes.

Study findings by Beigi et al. (5) showed that negligence (39.2%), imprudence (23.5%), and disobedience of governmental regulations (19.6%) ranked among the most frequent malpractices that occurred in the postpartum period that led to irreversible complications to the health of mothers and neonates. Similarly, another study to determine the knowledge and attitudes of student nurses and midwives about medical malpractice revealed that 40.5 per cent of student nurses and student midwives who are ready to graduate and completed their theoretical courses were found to have committed mistakes during their internship. The study showed that nurses and midwives play a significant role in preventing medical misconduct as they engage with women longer (6). Therefore, student midwives must have lived experience in a clinical setting to become familiar with the situation. In addition, clinical education incorporating theoretical and practical learning experiences is vital for student midwives as it can inspire them to further their professional development (7).

Healthcare students also developed negative feelings such as guilt and frustration in response to their mistakes during simulation-based learning (8). Despite this, the students understood that making mistakes was necessary to learn and that they accepted responsibility for the mistakes made during simulations. This was also stated in another

study, where the students became more conscious of their obligations towards women and their profession when a mistake was acknowledged and addressed (9). Although various evidence and policies have been put in place to help student midwives practice clinical education, students are prone to making mistakes because of the unsupportive learning environment and the lack of clinical supervision (7). It is important to emphasise the necessity of adequately preparing students for admission into the clinical setting (10).

Additionally, the healthcare system still strives to improve the patient's quality of care by acknowledging clinical mistakes. This can be achieved by considering students' needs holistically and understanding the factors that cause clinical mistakes (2,11). Therefore, the study on exploring student midwives' experiences with clinical mistakes is vital to providing better care in healthcare settings.

Given the current literature review, exploring the perspectives of student midwives on clinical mistakes will guide an individual in self-reflection on their experiences in the clinical setting. They can distinguish between what is acceptable and what is not in healthcare settings. Moreover, it will increase clinical mentors' and educators' awareness of the likelihood of students making clinical mistakes and how to address them. Furthermore, the execution of this study may aid in the planning and developing midwifery curricula and health policies to attain the highest possible quality of treatment and patient safety. Thus, the present study examined the viewpoints of student midwives regarding clinical mistakes and described how they are supported by healthcare professionals when mistakes are made.

## METHODS

### Design

The researchers opted for a descriptive qualitative study design to enable the student midwives to articulate their viewpoints (12). The students had to provide written responses to open-ended questions in an email interview template. Email interviews allow researchers to collect extensive and exhaustive data on sensitive subjects (13).

## Setting and Participants

A total of twenty-five student midwives were invited via email. Ten students initially indicated their desire to take part in the study. Nevertheless, only nine responded to the interview questions. A purposive sampling of six to ten students with diverse experiences may provide sufficient information power (14). Students were eligible in

line with the inclusion criteria through purposive sampling. The criteria for inclusion were as follows: a minimum of one clinical experience rotation, current enrollment in undergraduate midwifery courses at Universiti Brunei Darussalam, and 18 or older. The demographic data of the students is presented in **Table 1**.

**Table 1:** Sociodemographic characteristics of students

Year of Programme	No. of Students	Frequency of clinical rotation per semester
Year 1	6	2
Year 2	1	3
Year 4	1	3
Year 5	1	3
Total number of students		9

## Data Collection

The data collection period was from October 2022 to January 2023. A pilot study involving two student midwives collected the data via email interviews. The clarity and coherence of the interview template remained largely unaffected. The interview questions were formulated following the literature review findings (7,9,15). The five open-ended questions were about the student midwives' perspectives on clinical mistakes, their encounters with such mistakes, and the factors they believed contributed to them. Following the invitation, all students complied with the deadline of one week to submit their interview responses. The nursing and midwifery programme leader (PL) was the study's gatekeeper to promote voluntary participation. In this capacity, the PL assisted the cohort coordinators by communicating with them and procuring the email addresses of the group cohorts to which they would forward the invitation email, which contained the participant information sheet, consent form, and interview questions. Concurrently, the research team requested the cohort coordinator's aid in spreading the study flier throughout the WhatsApp group associated with each cohort.

## Data Analysis

A thematic process comprising six phases, as delineated by Braun and Clarke (16), was employed

to analyse all responses obtained from the students. To ensure familiarity with and comprehension of the interview template's content, the initial phase in data analysis was to read the students' responses through it multiple times. As part of the second phase, which generated preliminary codes for subsequent rounds of analysis, the transcripts were categorised, and all pertinent data extracts were gathered. The codes were examined, and the research team merged the data in the third phase to identify significant patterns and potential themes. In the fourth phase, a comparison was made between the themes and transcripts to ascertain whether they effectively communicated the research question and presented a trusted narrative. The scope and focus of each motif were ascertained through a comprehensive examination in the fifth phase. In their sixth and final phases, the team incorporated the extracted data and placed the results in the context of prior research. A sequential execution of the phases of data analysis took place. Analysis was conducted thoroughly by utilising these phases.

Meanwhile, an English translation was provided for a student whose responses were in Malay. After conducting participant validation to ensure the study's rigour, the research team provided a synopsis of the themes. To ascertain the accuracy of the researchers' interpretation of

the students' perspectives and thereby reinforce the data's validity, the translated and original responses were re-emailed to the students.

### Trustworthiness of Study Findings

Several approaches were employed to enhance the trustworthiness of this study. Trustworthiness has been further divided into credibility, which correlates with the realist idea of internal validity; dependability, which relates more to reliability; transferability, a form of external validity; and confirmability, which is primarily an issue of presentation (17). All these aspects have been established in this study. This research carried out voluntary participation, so the data collected were only from willing students. They were informed that no right or wrong answers would guide them to be truthful. In addition, the data was saturated after the seventh email, but two additional email responses were analysed to ensure no new information appeared. Hence enhancing the credibility of the research. As for dependability, the research methodologies were explained thoroughly so they can be replicated and improved by future researchers if gaps arise. This research described the students' experiences to allow readers to understand and compare the phenomenon, contributing to the findings' transferability. It is important to be reflexive to avoid being a researcher bias. This was achieved by precisely describing the responses from students in the data analysis, and proper documentation of their opinions and meanings was kept.

### Ethical Consideration

The study was conducted with full approval from the Institute of Health Sciences Research Ethics Committee (IHSREC) to recruit, interview and collect participant data (Reference: UBD/PAPRSBIHSREC/2022/82). All students provided consent. Students' identities were kept anonymous and identified in the data analysis and publication using their assigned PIN codes. In addition, all data collected throughout the research were kept strictly confidential.

### FINDINGS

The data analysis generated three broad themes that represented how the student midwives perceived mistakes experienced in the clinical placement: (1) Clinical mistakes as lessons, (2) Toxic work environment, and (3) Value of appropriate guidance. The students' quotes are used to illustrate the findings.

### Clinical Mistakes as Lessons

Within the clinical setting, students assert that making mistakes presents an important opportunity for development and learning. The individuals believed that committing mistakes was a vital element of the educational journey, allowing them to highlight their skills and abilities directly.

*"Mistakes can always be seen as something to help you grow in your journey. You make mistakes, then improve yourself so the incident does not repeat itself. I see my peers' mistakes as a learning experience to help me in my journey and growth."*

(Student 2)

*"Making mistakes in clinical placement is good because, without mistakes, we will never learn and be competent midwives when performing clinical tasks."*

(Student 5)

*"Whenever I make clinical mistakes, I will consistently try to deliver my best during clinical. But it has become part of my learning journey to grow. Mistakes do not make me lose hope, but refusing to improve my mistake does."*

(Student 6)

Students can assess their strengths and limitations throughout their placement by examining their mistakes. Consider a student who consistently committed mistakes while conducting a vaginal examination. She reported that her practice had improved over time due to consistent practice.

*"I remember making many mistakes while doing a vaginal examination as I tend to guess the opening of the cervix. But as I went along, I think the mistakes helped me significantly improve myself."*

(Student 2)

The mistakes committed during the clinical placement also reminded the students to prevent recurrences. One student, for instance, felt regret and disappointment regarding a mistake they distinctly recalled committing. Therefore, they are prevented from committing subsequent mistakes.

*"As a people pleaser, I hate and am scared to make mistakes. Sometimes, I would feel super bad and blame myself. But sometimes, I would pull myself, snap out of it, brush off it, and remind myself that this was a lesson to help me in the future; the mistake was inevitable."*

(Student 2)

*"Of course, I can never escape from making mistakes. However, constant self-reminders will reassure me, making me less anxious and confident with whatever I do."*

(Student 6)

### Toxic Work Environment

The students were exposed to negative surroundings, with the negative conduct exhibited by the healthcare staff and midwives being a significant contributor. An instance of staff behaviour that exemplified narrow-mindedness and hostility towards students resulted from the students' errors on a specific assignment. Furthermore, the staff appeared reluctant to train the slow-paced student, which could result in a student who needs to improve incompetence.

*"I was not prepared when conducting my first delivery case. The midwife who led the delivery pressured me to use my sterile gloves quickly. However, the midwife was mad at me when I was already wearing my sterile gloves, as I did not pour the chlorohexidine and vaginal cream into the gallipots. I had to break my sterility to pour them, but then the midwife shouted at me because of it."*

(Student 1)

*"Based on my experience, some mentors are reluctant to supervise their mentees because they are sometimes slow-paced, which interferes with their work."*

(Student 6)

As reported by the students, the midwives and staff exhibited a lack of professionalism, subjected them to humiliation, and held them to disparate standards, all of which had an adverse effect on their educational experience. They manifested anxiety, depression, and a lack of motivation, which rendered students incapable of completing their given clinical tasks.

*"Unpleasant reactions from staff members may hinder a student's ability to continue learning midwifery skills in the ward setting. Suppose this prolongs and feelings are ignored and neglected. In that case, this might cause a buildup of internal negativity within the student, such as anxiety, depression, low motivation, and low self-esteem, which can lead to them wanting to quit the course."*

(Student 9)

*"The more negative and unwelcoming the midwives are, the more the student avoids them; hence, the skills available within the clinical settings are avoided and least practised. Therefore, the lack of experience performing a skill means they have yet to be competent*

*enough to complete it without mistakes."*

(Student 4)

Students also reported feeling insecure, lacking in confidence and proactive behaviour, and evading responsibility out of dread in response to negative feedback from faculty and mentors. Consequently, their skills and abilities should be more utilised in clinical settings.

*"I am terrified of being scolded by my mentor, especially when my mentor scolds me in front of the patient or the other staff. My mentor scolded me with harsh words such as, are you even smart? What year are you even in? After this, please don't give me any more students. It has made me not want to try again. I always overthink after I make a mistake, no matter how small the error is. It makes me scared to go to work."*

(Student 3)

*"A tense relationship with a mentor can cause students or me to feel nervous and feel that I am being judged by the midwife, which leads to less confidence. I would have the mentality that everything I do would be wrong, leading to trauma and insecurity in the care and practice."*

(Student 2)

### Value of Appropriate Guidance

The students in the present study expressed that they could not distinguish between normal and abnormal observations of patient conditions due to inadequate mentor supervision. However, the students agreed that receiving sufficient guidance from their mentor and supervisor could instil confidence in them, motivating them to execute skills excellently in the clinical environment.

*"Due to a lack of supervision from my mentor, I always do an observation on women on my own. Sometimes, I need help understanding what to do and what is not normal."*

(Student 7)

*"A supervisor who teaches and supports students will make them more confident and have more opportunities to develop skills and improve their critical thinking."*

(Student 8)

*"A good relationship leads to confidence. If mistakes were made, reliable guidance while practising or feedback could be received from the midwife at the end of practice."*

(Student 2)

According to the students in this study, positive feedback and appropriate guidance from their mentor were the primary factors that contributed to their substantial improvement. These primary influences catalysed their increased motivation and competence, potentially leading to decreased mistakes within the clinical environment.

*"A good quality mentor lets us and motivates us to do a procedure. For example, to do an episiotomy, a mentor who guides us step by step and is by our side when doing it for the first time makes us less scared as we know there is someone who is guiding us."*

(Student 3)

*"Making mistakes during clinical can sometimes make me feel devastated, like I cannot do anything right, but with the support of my mentor, reflecting on my intention can make me feel better, do better, and improve."*

(Student 4)

*"The ideal environment during a student's clinical setting would be that their mentors would be there spending time with the student, reacting to the student's mistakes positively with constructive criticism, which ultimately motivates and leads them to practice the skills better and eventually perform less and fewer mistakes in the future. In an environment like that, the possible causes of students making mistakes during clinical practice will be significantly reduced."*

(Student 9)

## DISCUSSION

The main objective of this research was to shed light on the perspectives and experiences of undergraduate student midwives regarding mistakes that occurred in clinical environments. The domain of midwifery presents formidable obstacles and demands exceptional expertise and understanding. It involves providing postpartum support to women and ongoing assistance to their families. Student midwives must receive comprehensive and effective training to equip themselves for this critical responsibility (7) adequately. Even though they are regrettable and potentially harmful, clinical mistakes can present vital learning opportunities for student midwives. Diverse studies have demonstrated that students can learn from and implement lessons from mistakes when comprehending their origins (7,11,18). The importance of providing students with opportunities to practise diverse tasks to develop their confidence, expertise, and capacity to learn from their mistakes has been emphasised (19). Likewise, simulation-based clinical situation learning enabled students to learn from their

mistakes and improve their performance, and student midwives' knowledge increased substantially (20). As students in this study noted, clinical practice allows them to demonstrate their abilities and skills in a practical setting; clinical mistakes can illuminate areas in which they may be deficient in knowledge or comprehension. This can assist students in identifying the areas in which they need to develop their clinical practice through study and instruction.

Furthermore, through self-reflection, students can refine their critical thinking abilities. For instance, when students encounter the repercussions of their mistakes, they must critically analyse what happened and devise strategies to avoid similar mistakes. Eventually, they will acquire the critical thinking and problem-solving abilities necessary to provide safe and effective care for the duration of their professions (21). A comparable encounter was reported by the students in this research, wherein mistakes served as a catalyst for self-reflection and assisted them in identifying their strengths and limitations. Additional research supports this notion, indicating that students perceived critical thinking, collaboration, repetition, and reflection as beneficial to their learning (18). Consequently, students will ultimately develop a more profound comprehension of the intricacies and subtleties of delivering healthcare services, given that mistakes frequently transpire due to inexperience or unfamiliarity. Thus, through introspection and comprehension of what transpired erratically, students can enhance their knowledge of delivering secure and efficient care (22).

Additionally, students could develop resilience to manage the tension and pressure associated with clinical mistakes, thereby equipping themselves to confront challenging circumstances in subsequent instances (23). A workshop focusing on the development of coping mechanisms, the affirmation of fundamental values, and the comprehension of one's essential strengths was implemented as part of the research. The findings indicated that the intervention was effective, as students reported greater overall resilience, increased knowledge of pertinent subjects, and increased confidence in managing adverse situations after completing it (24). Similarly, the individuals who participated in this research expressed that they experienced conscience and discontentment when confronted with clinical mistakes,

potentially resulting in psychological anguish. Thus, coping resilience is essential in clinical matters owing to the manifest high-pressure nature. While none of the students underscores the significance of possessing resilience, clinical mentors and educators must instil this quality in them. Prior research has demonstrated that clinical mistakes contribute significantly to the development of resilience (2,23,24).

The second theme of the study referred to the negative work environment that impacted the clinical learning competence of student midwives. The attitudes of clinical staff and instructors profoundly influenced the students' clinical learning. The students in this research study have reported experiencing negative responses from their clinical educators. Specifically, certain clinical educators have been observed engaging in hostile, unprofessional, or discriminatory conduct, which has been identified as a detrimental learning environment that has affected the student's academic progress. Students avoid responsibilities out of fear and a lack of confidence and motivation due to this toxic environment (7). An additional investigation identified comparable characteristics of a hazardous setting that could impair employees' efficiency (25). This work environment induces tension among employees, which ultimately leads to a range of mental and physical health complications.

Additionally, this issue may contribute to the development of illnesses such as anxiety, insomnia, and depression among employees (26). Likewise, the students' apprehension escalated tensions, resulting in physical and psychological complications, and impeded their embrace of their professional responsibilities. The individuals experienced mixed feelings regarding their decision to pursue a professional career, contemplated withdrawing from their study area, and refrained from embodying the role most suitable for their prospective workplace, the labour room (9). Therefore, reducing exposure to stimuli associated with frightening events is imperative to mitigate the detrimental work environment and enhance students' capacity to deliver safe and high-quality care. This objective can be achieved by establishing a nurturing educational setting in which clinical instructors are encouraged to perceive mistakes in judgement as beneficial chances for development and progress rather than condemning them to failure or incompetence (27). This suggests that by cultivating a positive learning environment, students may feel more at ease when confiding in their clinical mentors about their mistakes and experiences, devoid of apprehension

regarding criticism or negative consequences (28).

The students reported inadequate feedback, guidance, and mentoring regarding their clinical educators. This indicates that undergraduate student midwives could benefit from additional support to feel more confident and oriented. It is imperative to recognise the critical function clinical educators fulfil in fostering competency among student midwives and securing their assistance (9). Moreover, the students who participated in this research remarked that the staff humiliated and reprimanded them whenever they committed an error in the clinical setting instead of providing constructive criticism that would have motivated them to improve. Ensuring that the curriculum's subject matter, teaching methods, and communication techniques are designed to assist students in managing mistakes encountered in clinical settings is of utmost importance (9). Furthermore, it is critical to incorporate a debriefing session into simulation-based learning experiences, as it greatly enhances the student's confidence (20). Debriefing consists of a clinical mentor and a student engaging in a structured process of reflection and discussion after a clinical encounter, including instances where a student commits an error. Debriefings allow students to assess their performance, recognise areas that require refinement, gain insights from their mistakes, and devise approaches to handle similar circumstances in the future (29). In contrast, the students in this research needed to undergo adequate debriefing sessions led by clinical mentors after their mistakes. This oversight has the potential to impair the students' learning capabilities. This demonstrates that implementing debriefing is a crucial element in clinical education, as it can assist students in developing problem-solving and critical-thinking abilities.

The focus of the third theme was the significance of appropriate support for student midwives during their clinical placements. The study students believe that receiving suitable supervision and guidance from clinical educators and mentors will effectively inspire them to acquire further knowledge, potentially leading to decreased clinical mistakes. Additionally, through the provision of suitable mentorship and guidance, students have the opportunity to enhance their clinical proficiencies under the tutelage of seasoned midwives. These professionals can impart their knowledge and expertise, bolstering students'

confidence in delivering exceptional care to mothers and infants. Mbakaya et al. (19) assert that teaching and learning resources are important in midwifery education. At the same time, students may feel more confident in their abilities and supported by having a mentor, which can be especially crucial in high-pressure situations (30). In addition, students can gain a broader comprehension of the field by being exposed to various approaches and points of view regarding midwifery care through the guidance of a mentor (31). As a result, the students in this study expressed similar sentiments to those observed in prior research; this will ultimately inspire greater assurance. In addition, frustration may cause student midwives to discover improper procedures, become incompetent practitioners, and lose interest in the profession (32). Therefore, healthcare professionals must recognise the importance of providing students with proper guidance and mentorship. For example, psychomotor training should be supported and appreciated through prompt feedback and reflection to enhance self-regulation of cognitive processes, fostering confidence and enabling advancement to higher levels of skill development (33).

## CONCLUSION

The students in the present study provided accounts of mistakes they encountered while working in the clinical setting. Although the students recognised clinical mistakes as chances for growth and development, midwives' and mentors' lack of support and unwelcoming attitudes hindered their capacity and drive to acquire knowledge. Furthermore, the students emphasised the significance of guidance and mentorship from clinical educators in developing proficient midwives. Therefore, by receiving appropriate guidance from mentors and recognising clinical mistakes as valuable learning experiences, prospective student midwives may be better prepared to deliver exceptional care to expectant mothers and babies.

Through this research, our understanding of how student midwives perceived clinical mistakes has been expanded. Nevertheless, additional investigation is warranted regarding the viewpoints of clinical educators and midwives regarding clinical mistakes and their approaches to resolving student clinical mistakes. It is advisable to incorporate legislative measures and training programmes that promote a climate of regard and assistance for individuals aspiring to become midwives. One potential approach is implementing

resilience training programmes that enhance students' preparedness for challenging healthcare scenarios. Clinical mentors and students could also conduct appropriate debriefing sessions after adverse events. In addition, healthcare professionals and educators are responsible for fostering a nurturing learning atmosphere that uplifts student midwives throughout their education.

## LIMITATIONS

The limitations include the researcher's inability to conduct thorough questions in real-time, which hinders the ability to explore further. Additionally, several students offered brief and superficial responses, which constituted areas for improvement. Nevertheless, the research team successfully obtained broad responses through email correspondence with the students.

## CONFLICT OF INTEREST

There were no conflicts of interest.

## AUTHOR CONTRIBUTIONS

**FNH:** drafted the manuscript and contributes to the concept development and design of the article through data collection, analysis and data interpretation for the article.

**YZ:** revised the manuscript critically with intellectual contents and approved the final version of the manuscript.

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