

# Midwives' attitudes toward safety: A qualitative study

Shaohua Li<sup>1,a</sup>, Chaoying Li<sup>1,b,\*</sup>, Na Lv<sup>1,c</sup>, Pengjun Zhang<sup>1,d</sup>, Jinming Guo<sup>1,e</sup>

<sup>1</sup>Department of Neonatology, Affiliated Hospital of Hebei University, Baoding, 071000, Hebei, China  
<sup>a</sup>xiaolizhu2007@163.com, <sup>b</sup>lizhaoying725@126.com, <sup>c</sup>869690727@qq.com, <sup>d</sup>26209266@qq.com,  
<sup>e</sup>853187656@qq.com

\*Corresponding author

**Abstract:** In order to understand the cognitive and subjective perceptions of midwives' attitudes towards patient safety within the current nurse practice environment, in addition to providing new insights and guiding methods for patient safety. In this study, 10 midwives were selected using a purposive sampling method, who working in the obstetrics department of a Grade III A hospital, located in Baoding, from January to May 2018. Data were collected using semi-structured interviews, face-to-face nonverbal behavior observation, and analyzed using the Colaizzi 7-step analysis method. There were three themes: (1) Patient safety issues are important and when they occur make midwives feel very frustrated or even lose confidence in their work; (2) there are numerous safety hazards in obstetrics and delivery room work; and (3) when safety problems occur, senior medical or nursing staff or leaders are most desired to be present. Hospitals should pay attention to midwives' safety attitudes, establish a safety support system, do a good job of psychological counseling after safety problems occur, systematically assess existing safety problems in departments, eliminate safety hazards in a timely manner, formulate detailed emergency plans and improve coping mechanisms.

**Keywords:** Midwives, attitudes toward patient safety, qualitative study

## 1. Introduction

Patient safety is a global issue due to the inevitable morbidity and mortality rates and their huge costs. Safety attitude, on the other hand, is a state of mental readiness to consider and judge how people should act to avoid accidents after being exposed to external stimuli, thus safety attitude is an important factor in the success of safety efforts<sup>[1]</sup>. Obstetrics is one of the high-risk departments in hospitals. The delivery room is complex, rapidly changing and high-risk, in which any negligence and carelessness may lead to serious adverse consequences. Therefore, it is of great research significance to understand the safe attitude of midwives in order to strengthen the safe management of maternity ward care and eliminate hidden danger of patient safety. Currently, studies on attitudes towards patient safety are mostly quantitative in the form of questionnaires, and Chen Fanglei<sup>[2]</sup> introduced a safety attitude questionnaire in 2008 for nursing staff to evaluate the culture of patient safety in hospitals. In 2009, Guo Xia<sup>[3]</sup> studied the introduced Safety Attitude Questionnaire and formed a Chinese version of the Safety Attitude Questionnaire (C-SAQ) with high reliability and validity. However, qualitative studies on safety attitudes are rare, and at present, no qualitative studies have been found for this particular populations of midwives. So, this study used a qualitative research method to conduct in-depth interviews and analyze the safety attitudes of midwives using a phenomenological approach, with the aim of providing a reference for clinical development of appropriate interventions.

## 2. Objects and methods

### 2.1 Study participants

In this study, 10 midwives were selected using a purposive sampling method, who working in the obstetrics department of a Grade III A hospital, located in Baoding, from January to May 2018.

Specific inclusion criteria were as follows: (i) qualified as a midwife and have worked independently; (ii) volunteered to participate in this study; and (iii) have no current medical disputes. Specific exclusion criteria were as follows: dropped out in the middle of the interview.

The sample size was based on the fact that no new themes emerged during the interviews and that the information reached saturation. A total of 10 midwives, all female, including 1 with postgraduate degree, 7 with undergraduate degree, and 2 with specialist degree; age 27-45 years; 1 with associate senior title, 5 with intermediate title, and 4 with junior title; and 0.5-20 years of working experience were included in this study. Participants signed an informed consent form.

## **2.2 Study methods**

### **2.2.1 Develop an outline for the interview**

Before the formal interview, the researcher used the brainstorming method to determine a semi-structured interview outline with two senior nursing experts based on the core question of "What is your opinion on patient safety?" according to the purpose of the study and relevant literature. The outline was as follows:

- ① What are your thoughts on current patient safety issues?
- ② What patient safety incidents have you experienced?
- ③ What do you think are the current problems of patient safety?
- ④ How did you handle patient safety issues when they occurred? What do you think could be improved?

### **2.2.2 Data collection and quality control**

The researcher conducted face-to-face interviews at a time and place agreed in advance with the interviewees. The location was conducted in a quiet, non-disturbing environment (a separate room). The purpose, methods, and content of the study were explained to the interviewees before the interview, and absolute privacy was promised. The interview process was audio-recorded and the interviewee's understanding and consent was obtained. During the interview process, the interviewer used a guided approach, and the order of questions in the outline and the way of asking questions depended on the specific situation. At the same time, the interviewee's feelings and thoughts were explored in depth, and the interviewee's statements were affirmed without comment at the right time in order to encourage him/her to continue. Most importantly, the researcher's subjective opinion should be avoided to induce the interviewees. Non-verbal behaviors such as expressions and emotions of the interviewees were recorded and sudden inner feelings of the interviewees were recorded in time. The duration of the interview was 30 minutes to 1 hour per interviewee.

### **2.2.3 Data analysis methods**

After the interview, the researcher transcribed the recordings into textual material within 24 hours and analyzed the data using the Colaizzi 7-step analysis method. The interview transcripts of each interviewee were sequenced and created their own separate files according to N1-N10, followed by coding, categorization, and distillation of themes. In the duration of the study, the collocation method was used several times to check the original recorded information and results with the study participants in order to improve the credibility.

## **3. Results**

### **3.1 Theme 1: Patient safety issues are important and when they occur make midwives feel very frustrated or even lose confidence in their work.**

All 10 midwives all mentioned that patient safety is an extremely important part of their care. However, when patient safety issues occur, whether or not they are unavoidable, they are frustrating, reduce interest in work, and lose a sense of well-being.

I usually work very careful, but a little inattentive, there was still a patient fall incident, so I felt that my usual work was wasted (sigh)! [N1]

There was an incident with a newborn wristband, when I felt particularly helpless and frustrated, doubting my ability to continue the job, and sometimes even thinking about quitting. [N2]

Patient safety is so important that I think I would resign if a major irreversible event occurred on my shift. [N7]

No one wants mistakes or accidents to happen. They usually work very seriously, but they may still lack experience and not consider problems comprehensively. Especially when they are particularly busy, it is inevitable that unexpected things will occur, and at that time, they will feel frustrated and frustrated. [N10]

### ***3.2 Theme 2: There are numerous safety hazards in obstetrics and delivery room work.***

#### ***3.2.1 Sub-theme 1: Safety of newborns in obstetrics and delivery rooms is important.***

All 10 midwives all mentioned the safety of the newborn, fearing that a newborn would suffocate and that they would not find it in time. 9 midwives expressed a particular fear of giving the newborn to the wrong family or having the newborn stolen in the middle of the night.

Although I visited the ward many times each night, I was afraid that I would be busy with other things and a newborn would suffocate. [N3]

I use the door every night, but I'm still not sure about the safety of the newborn, worried about burglars (skittish). [N4]

I was especially afraid of encountering careless families who didn't care about anything, and had no experience in caring for babies. I went to guide and educate many times, but still did not feel at ease. [N5]

Children are definitely precious, but some family members are too careful. They are afraid of falling when held in their hands and melting when held in their mouths, making it difficult for us to work properly. [N6]

Newborns are different from adults, and even different from children. They cannot speak and cannot express their feelings, so medical staff need to have a strong sense of responsibility, otherwise accidents may occur. [N7]

#### ***3.2.2 Sub-theme 2: Maternal safety is important the day after cesarean section and after delivery.***

Eight midwives mentioned that falls can easily occur when the urinary catheter is removed the day after a cesarean section and when getting out of bed to urinate for the first time after delivery. These two time points are dangerous and require extra attention.

When maternity get out of bed for the first time to urinate, it's easy to go into shock. Although I educated each patient, such incidents still occur. [N1]

Once the maternity fainted in a public restroom, although it was quickly relieved, but now I think about it's still terrible. [N2]

After such incidents, the emergency plan was immediately activated, but the anxious look of the family still makes people uncomfortable. [N3]

Some pregnant women are particularly not used to defecating in bed. They know it's dangerous, but they still secretly go to the bathroom for convenience, which makes them particularly prone to fainting in the bathroom. [N9]

A considerable number of pregnant women are attended to by their mother-in-law, so it is difficult for them to let their mother-in-law take care of their own bowel movements. Therefore, they would rather go to the restroom to defecate, which increases the likelihood of accidents. [N10]

### ***3.3 Theme 3: when safety problems occur, senior medical or nursing staff or leaders are most desired to be present.***

Six midwives mentioned that they would like to have a senior nurse or physician present when a patient safety event occurs, preferably with the department head present.

When a patient safety incident occurs, the emergency plan will be activated in a timely manner. However, I would still like to have a doctor or nurse with more seniority than myself present, and it would be best if the leader is there. It is not necessary for them to do any specific work, as long as they were there, i feel safe. [N1]

Especially when the family is agitated, the resuscitation is already very busy, and there is energy to take care of the family, so I am looking forward to someone to help me. [N3]

I am not afraid to resuscitate patients, but I am mostly afraid to communicate with emotional families,

especially at night when there are few people. Whenever this happens, I especially wish there was a department leader, although I know this idea is not realistic. [N4]

In the event of neonatal asphyxia or severe maternal lacerations on the operating table, I was so hopeful that my teacher would be there. [N6]

When I am on duty alone, I particularly hope to avoid any accidents. I am worried that I will not be able to handle them properly and the patient's family will complain to me. If there is a colleague who is more experienced than me, my psychology will be much more stable. [N8]

When on night shift alone at night, if there is a conflict with family members, the leader will only listen to one side of the family's words. It would be great if the leader could see the real scene on site. [N10]

## 4. Discussions

### 4.1 Focus on midwives' safety attitudes and optimize midwives' self-efficacy.

Safety attitude is an important factor in ensuring medical safety<sup>[4]</sup>. In this interview, 10 midwives all considered patient safety to be an important part of care, showing a high attitude towards safety, similar to the studies of Xiao Shufeng<sup>[5]</sup>, Tunçer<sup>[6]</sup>, and Wu Qiyun<sup>[7]</sup>. A cross-sectional study<sup>[8]</sup> showed that Chinese nurses had a moderate level of safety attitudes toward patients, which may be related to the different departments where the study participants were located. The safety attitudes of nurses may have a significant impact on patient prognosis and patient safety<sup>[9]</sup>. Therefore, hospital administrators should focus on the safety attitudes of midwives, which in turn will reduce the occurrence of maternal and neonatal safety hazards and promote patient health.

In this interview, some of the interviewees thought that "all the usual work was wasted" after the safety problems occurred, and even "thought about quitting" or "would quit", which showed that the midwives had negative emotions and attitudes such as frustration, self-denial, as well as avoidance regarding patient safety problems. Stovall<sup>[10]</sup> argued that once patient safety issues occur, they may cause potential moral harm to nurses, exposing them to burnout, post-traumatic stress disorder, and other trauma-related problems. In 2000, Wu<sup>[11]</sup> first referred to the health care workers involved in adverse medical events as Second Victim. Studies have suggested that nurses in China, as second victims, face various negative experiences of physical and psychological disturbances and lack effective coping strategies<sup>[12]</sup>.

Hospitals should adopt humane management tools, actively advocate a non-punitive culture, encourage the reporting of nursing adverse events, and reduce the harm to nurses from patient safety issues. Based on the special nature of the obstetrical work environment, hospitals should focus on building a multidisciplinary cooperative support system to provide effective assistance to midwives, emphasize their physical and mental health, and thus enhance the self-efficacy of midwives. While, midwives should comply with the rules and regulations of the hospital and the department, strive to improve their theoretical and skill level, learn relevant legal knowledge, and conduct regular stress reduction training to reduce work pressure as much as possible. In case of safety problems, they should actively adjust their mindset and voluntarily seek help.

### 4.2 Actively identify safety issues and widely raise safety awareness.

In this interview, all 10 midwives mentioned neonatal safety issues, mainly "fear of neonatal asphyxia", "fear of giving the newborn to the wrong family", and "fear of having the newborn stolen in the middle of the night". It was found that among the 60 adverse events in neonatal care, coughing and choking or neonatal asphyxia accounted for the highest percentage of all events, at 40.00%; neonatal bed fall, at 36.67%, ranked second; and the percentage of events in which the neonate was left alone in the ward without a family member was 23.33%<sup>[13]</sup>. Eight midwives mentioned maternal safety issues, mainly "fall events", "shock", "faint", etc. According to Villar<sup>[14]</sup>, maternal safety issues include adverse events (e.g., maternal death, bleeding, infection, neurological pathology, problems related to surgery and drug use) and contributing factors (e.g., delays in care, diagnosis or treatment, obstetric violence, misdiagnosis, and patient identification problems).

Safety in obstetrics is related to maternal and infant outcomes and is an important part of obstetrical work. Hospitals and departments should systematically evaluate current safety issues and address them

in terms of environmental facilities and management.

The recommendations on environmental facilities are as follows: The relevant departments of the hospital should (i) pay attention to hospital security, standardize the security personnel's patrol system, strengthen the access control management of obstetrics and delivery rooms, and post emergency alarm telephone numbers; (ii) install more handrails in obstetrics wards and restrooms to ensure the safety of women in bed; (iii) ensure the normal operation of the ward bedside call system, and provide emergency rescue and treatment in case of patient safety problems.

The suggestions of management are as follows: Nursing managers should (i) improve the rules and regulations of obstetrics and delivery rooms, such as nurse rounding system, handover system, graded care system, check system, etc., and clarify the job responsibilities of midwives, so as to discover the hidden dangers of neonatal and maternal safety in a timely manner; (ii) educate the importance of maternal and infant safety through multiple channels and raise the safety awareness of patients. For example, pushing maternal and infant safety knowledge through hospital and departmental publicity platforms (official website, official WeChat public number), playing relevant videos on ward TV sets on a loop, posting preventive measures for neonatal asphyxia in wards and corridors, etc; (iii) pay attention to the role of family members so that they can play an active role in actions to enhance maternal and infant safety. A related study<sup>[15]</sup> confirmed that maternal complications were reduced through family participatory health education during nursing practice, which in turn increased the satisfaction rate of care.

#### **4.3 Improve support system and enhance response mechanism.**

In this interview, six midwives mentioned that they would like to have a "senior doctor or nurse", "leader", or "teacher" present in case of safety issues. "I am most afraid of communicating with an agitated family". This showed that midwives have poor awareness of autonomous decision-making, poor coping skills, and inadequate communication skills.

A study<sup>[16]</sup> showed that the clinical decision-making awareness of midwives was at a moderate level and needed to be further improved. It is recommended that managers should: (i) improve relevant emergency plans, strengthen emergency training, improve the management of resuscitation instruments and drugs, strengthen clinical assessment of nurses' emergency skills, post detailed resuscitation flow charts in resuscitation rooms, nurses' stations and other locations, etc., to improve the overall emergency and critical care capacity of the nursing team; (ii) conduct theoretical and skills training for midwives stratified by nurse hierarchy, encouraging senior or excellent nurses to share their clinical work experience and communication skills, while attaching importance to the continuing education of midwives and increasing opportunities for exchange and study outside the home, etc. to actively explore a scientific scheduling system. (iii) actively explore a scientific scheduling system. The study<sup>[17]</sup> showed that reasonable adjustment of work completion time based on the workload distribution pattern, implementation of sub-group hierarchical scheduling and shift rotation system ensured the safe and normal operation of obstetric work without increasing human resources, and achieved good results.

## **5. Conclusions**

Midwives' patient safety attitudes are all positive, holding the view that patient safety is important, especially the safety of the mother and baby. Hospitals should do a better job of counseling and providing a support system after safety issues occur. At the same time, the current safety problems in the department should be systematically evaluated to eliminate safety hazards in a timely manner, and a detailed emergency plan should be developed to enhance the response mechanism. In the future, attention should be paid to the psychological state of midwives as second victims and the ability of the midwife team to provide acute and critical care.

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