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and perception of nursing **Expectation** caring for patient students in deteriorating: A descriptive qualitative study

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ABSTRACT

Introduction: Nursing students commonly exhibit low confidence levels when handling complex patient conditions, particularly those involving deteriorating health. Their lack of confidence and competence in managing deteriorating patients may potentially cause harm and even lead to fatal consequences if early recognition of such conditions is not made, given their role as primary responders in healthcare settings.

Objective: This study aims to explore the expectation and percetiption of nursing students in caring for deteriorating patients.

Methods: A descriptive, qualitative approach was employed, utilizing purposive sampling to select participants. Specifically, nursing students from a school in Pahang were chosen for this study. A topic guide was provided during interviews, employing a semi-structured approach with open-ended questions. Data obtained were analyzed using thematic analysis, resulting in the identification of themes and subthemes.

Results: Findings revealed that 37.5% of the nursing students were not ready, while others felt prepared despite encountering various barriers and challenges. Three themes emerged: 1) unpredictable, 2) predictable, and 3) anticipated.

Conclusions: In summary, the readiness of nursing students in providing care for deteriorating patients significantly influences the care received by the patient, both directly and indirectly. Despite struggling to adapt to challenges, the nursing students displayed willingness to provide nursing care.

Keywords: expectation; perception; nursing student: deteriorating

INTRODUCTION

Nursing students and recently graduated nurses are likely to be required to care for patients with numerous severe comorbidities, as many hospital patients have high acuities and are at a heightened risk of experiencing clinical deterioration during their stay (Anstey, 2019). Educating undergraduate nursing students to become proficient and safe practitioners to support our existing healthcare systems poses significant challenges. Therefore, it is crucial for student nurses to be provided with opportunities to develop and refine their assessment abilities. This would enable them to identify important early warning signs indicating a patient's deteriorating condition, fostering a sense of capability and confidence in recognizing deterioration and responding appropriately. Addressing this issue effectively involves teaching nursing students how to recognize and respond to deteriorating patient conditions (Gillan, Delaney, Tutticci, et al., 2022).

Identifying deteriorating events at an early stage could benefit multiple parties involved. Patients could shorten their stay in the ward, leading to financial savings, and create opportunities for urgent cases needing heightened care. However, it's alarming that 28% of patients have died due to inadequate monitoring of their vital signs. In such situations, novice nurses and nursing students are more prone to experiencing worry, tension, difficulties in utilizing technology for care provision, and a lack of confidence. Therefore, this study is crucial in examining the preparedness of nursing students to provide care for deteriorating patients in any setting they may be assigned to work in.'

Patient deterioration refers to a situation where a patient's clinical condition deteriorates unnoticed, posing risks to patient safety by compromising functional abilities and potentially leading to delayed hospitalization, disability, and even death. Concerning primary assessments conducted by nursing students, there are numerous instances of incomplete evaluations, such as omitting vital sign measurements and focusing solely on specific areas of concern. Essential indicators like respiratory rate and capillary refill are often overlooked (Gillan, 2022). Furthermore, assessments are perceived as subjective and episodic rather than continuous processes (Gillan, 2022). This incomplete assessment aligns with retrospective studies on Early Warning Scores (EWS), revealing significant non-compliance with vital sign assessments in patient records (Gillan, 2022).

Emotionally, nursing students tend to become overwhelmed when patients' conditions escalate into severe symptoms, causing distraction and hindering routine assessments. Stress and fear of making mistakes or not comprehending the complexity of patients' conditions lead to dependency on experienced nurses for care (Sterner et al., 2019). This inexperience and insecurity during critical situations limits their

application of complex medical theories into practice and generates stress from unfamiliar acute scenarios. Moreover, nursing students encounter challenges in judgment, struggling to interpret and respond promptly to deteriorating events. They often demonstrate slow reaction times and limited ability to manage ongoing deterioration, resulting in incomplete clinical data for decision-making. Patient characteristics overwhelm students, hampering the quality of their judgment and decision-making abilities (Gillan, 2022).

This research employs Benner's (1984) theory of novice to expert as its theoretical framework. Nursing students are categorized as novices requiring guidance due to limited clinical experience, which typically spans only 52 weeks or one year. The study aims to validate the classification of nursing students as novices and implement the Experiential Learning Theory (ELT), emphasizing learning through practical experience, as proposed by Kolb (2014). Experiential learning is crucial for knowledge construction in this context. Meanwhile, the specific objectives of the study are to describe deteriorating patients based on nursing students' views, to explore nursing students' expectations and perceptions of caring for deteriorating patients, to determine nursing students' readiness and responses when dealing with deteriorating patients in clinical settings, and to identify the barriers related to readiness among students in caring for deteriorating patients.

MATERIAL AND METHOD

Study Setting, Design and Sample

A qualitative study was carried out among nursing students in their second, third, and fourth years of study. The participants were selected using a purposive sampling method based on their specific experiences in caring for deteriorating patients. Eight students were effectively recruited for this study: four from the fourth year, three from the third year, and one from the second year, adhering to predetermined inclusion and exclusion criteria. The inclusion criteria specified that nursing students from the second to fourth years who had encountered clinical deterioration cases, were proficient in both Malay and English, and were willing to take part in the study were eligible. Those who were unavailable during the study period were excluded. The study was conducted between March 2023 and June 2023.

Material

A semi-structured interview served as the primary method for data collection. The interview questions and the topic guide were initially developed in English (Table 1). However, during the interview sessions, participants had the flexibility to converse in either Malay or English, based on their preference for expressing themselves. The interview covered various aspects, including the participants' perspectives on deterioration, expectations and perceptions. experiences during clinical placements, actions and responses to incidents, and encountered barriers.

Ethical Consideration

The research study obtained approval from two respected ethical committees: 1) the Kulli-yyah of Nursing Postgraduate and Research Committee (KNPGRC) with No. 8/2022, and 2) the IIUM Research Ethics Committee (IREC) with reference IIUM/504/14/11/2/IREC 2023-KON/NURF. Upon receiving approval, participants were approached during their scheduled times and provided with the consent form and personal information sheet. Prior to the interview, all participants were given a comprehensive briefing regarding the study.

Data collection

The data collection process spanned from March 2023 to June 2023, focusing on direct interviews as the primary method. Interviews

were conducted in both languages—Malay and English—based on participants' preferences, utilizing a semi-structured interview guide. Sessions were held either in person or virtually, accommodating participants' availability. To ensure confidentiality, interviews were conducted privately, and recordings were made using an audio recorder device and Google Meet for transcription purposes. Before each interview, participants were briefed on the interview guide and terminology to ensure clarity and a comprehensive understanding of the study. The interviews typically lasted between 30 to 45 minutes, adopting an informal approach with open-ended questions. were made using an audio recorder device and Google Meet for transcription purposes. Before each interview, participants were briefed on the interview guide and terminology to ensure clarity and a comprehensive understanding of the study. The interviews typically lasted between 30 to 45 minutes, adopting an informal approach with open-ended questions.

Data analysis

The recorded audio was transcribed into written form after repeated listening to ensure accuracy. Thematic analysis, following Braun and Clarke's (2006) framework, was employed to identify, analyze, organize, describe, and report the themes derived from participants' responses. The analysis involved careful examination of the data, enabling the researcher to develop appropriate themes aligned with the research objectives. This process included multiple readings of the transcripts to identify significant patterns and themes. Additionally, peer review was conducted by the researcher

Table 1. Topic guide used during the interview session

No. List of Interview Questions

- 1 Can you recall your experience on the first day of clinical attachment?
- 2 Have you met and encounter with deteriorating patient? How do you describe deteriorating based on your understanding?
- 3 Any experiences with deteriorating patient during your clinical attachment? Do you encounter any problems/ voluntarily participate to care on them?
- 4 What is your expectation before caring on deteriorating patient?
- What is your perception on deteriorating patient? Do you feel ready enough to care them at that moment? What are the reasons?
- 6 What do you feel when handling them?
- 7 Are there any barriers related on your readiness to care deteriorating patients?
- 8 Do you have any solutions for your unreadiness/problems above?

to validate the findings and ensure the research remained aligned with its intended direction. Regular checks were implemented throughout the research process to maintain consistency and accuracy in the findings.

Trustworthiness

In this study, three criteria for ensuring trustworthiness were utilized: dependability, credibility, and transferability. Dependability was maintained through actions taken by the researcher's supervisor, who acted as a peer reviewer, examining the research process and data analysis to ensure the consistency of the findings. The researcher also assessed the analysis technique for consistency, accuracy, and freedom from bias. Credibility aimed at ensuring the accurate interpretation of participants' perspectives. This involved evaluating the accuracy and consistency of the interview transcripts, providing critical data interpretation. comments on presenting findings that were substantiated by the analysis process, as outlined in the findings section. Lastly, transferability refers to the reader's ability to apply the study's results to different frameworks or settings involving different respondents. This criterion addresses the potential applicability and relevance of the study findings beyond the specific context in which the research was conducted.

RESULTS

In this study, the researcher initially recruited 12 potential participants. However, due to various unavoidable reasons such as unavailability, inability to be contacted, and time constraints after obtaining approval, four of the potential participants withdrew from the study.

Consequently, a total of 8 participants were finally included, comprising 4 participants from the fourth year, 3 from the third year, and 1 from the second year. The summary of participants' demographics is presented in Table 2.

Theme 1: Unpredictable

According to the responses provided, 50% of the participants did not anticipate the patient's deterioration because, before the deteriorating events occurred, the patient's condition was perceived as fine and stable. The participants' quotes shed light on their unexpected experiences regarding patient deterioration. One participant expressed a sense of denial upon witnessing the sudden decline of a patient's condition. Despite regularly checking the patient's vital signs and perceiving them as within acceptable ranges, the rapid change in the patient's state was unforeseen. Another participant, hopeful due to the presence of a chest tube and the patient's ability to ambulate independently, was taken aback when the patient unexpectedly passed away, contrasting the participant's expectations. Similarly, another participant recounted encountering a seemingly stable patient, expecting discharge soon, only to witness an unforeseen incident leading to deterioration, emphasizing the need for constant vigilance despite apparent stability. Lastly, a participant described their surprise at a patient's rapid decline, expressing their disbelief as the patient appeared fatigued but seemingly normal, not expecting the sudden passing (P4).

"Honestly, when that happened, I was in denial. Is it true that Mr E suddenly went into an unresponsive state? Sometimes when I went to the front counter, when I have nothing to do, I will go to him and asked his condition...Basically I am keen

Table 2. Participants Demographics

| Participants | Age | Gender | Year of study | Experience on care of deteriorating |
|--------------|-----|--------|---------------|-------------------------------------|
| P1 | 24 | Female | 4 | Medical Ward |
| P2 | 22 | Male | 3 | Medical-Surgical Ward |
| P3 | 23 | Female | 4 | Medical Ward |
| P4 | 23 | Male | 4 | Medical Ward & ED |
| P5 | 22 | Female | 3 | ICU |
| P6 | 22 | Female | 3 | ICU |
| P7 | 23 | Female | 4 | Medical Ward & ED |
| P8 | 22 | Male | 2 | Medical Ward |

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that he will make it somehow, never thought that he not going to make it. Looking back again on his previous vital signs, I am keenly sure that he will be fine, oxygen and heart rate was okay. It did not get too worse. But I can say that the event is very unexpected to happen on him and rapidly changed into that state."(P1)

"I am hoping that the patient become better since he has chest tube with him, means that the progression should become gradually fine and he was also able to ambulate on his own, to compare with the other patient that has been dying on bed with ventilator and CPAP. Unexpectedly, he passed away first..." (P7)

"I did not expect him to become deteriorate because the last time I checked on him was 95%, but due to the coiling of the oxygen tube, the oxygen percentage could not reach into his respiratory system well. I had met with a stable patient, we almost discharge him, but suddenly he fell in the toilet and immediately the nurse attached the nasogastric tube on him. Whatever it is, we do not know the future yet, thus we need to always alert with our patient." (P8)

"...She looks normal but seen like fatigue a little bit and tired... In fact, I didn't expect her to pass away like that as quickly as that..." (P4)

Theme 2: Predictable

The participants' quotes provide insight into their anticipations and observations regarding patient deterioration. One participant observed signs of instability in a patient before chaos ensued as the patient's condition deteriorated suddenly. Another participant highlighted the anticipation of a relapse in a patient's condition, particularly during a family conference where the patient's condition was notably concerning, ultimately leading to the patient's passing shortly after Furthermore, a participant detailed their expectations based on observed symptoms like shivering, agitation, and restlessness, noting a worsening of these symptoms upon further assessment of vital signs.

"When I was at the ward, I knew that the patient was showing unstable signs.

Suddenly, it was chaos when the patient become deteriorate and worsening." (P5) "Before this, the patient has the relapse and we expected him to deteriorate again. Coincidently, during that time, they had the family conference and the patient condition was not good. I found out that a few days later the patient passed away..." (P6)

"I do have expectation. I noticed that the patient was shivering. Before that, the patient already hyponatremia, agitated, became restless, and was mumbling on her own. What is wrong with this patient? Then I took his vital signs and the agitation and the shivering became worsened." (P2)

Theme 3: Anticipate

The participants' statements regarding their hopes and anticipations for patients' outcomes reflect their compassionate and empathetic approach to care. One participant expressed a heartfelt desire for a patient's survival, emphasizing the importance of seeing family members and highlighting the staff's effort in contacting them during a critical moment. Another participant expressed hope for a patient's consciousness, indicating a desire for the patient's awareness or responsiveness. Additionally, a participant conveyed a different form of hope, expressing a wish for a patient's discharge and return to normal daily activities at home, even if complete recovery seemed less likely.

"I really hope he can survive a little longer to see his family. The patient who had the seizure just now, I really hope he can survive, at that time staff in charge give a call to his family member to come for visit him." (P5)

"... and hoping that the patient will be conscious." (P2)

"Like what I said, I am not hoping that she will recover but I hope that she can be discharged and perform her daily activities at home as usual." (P4)

DISCUSSION

From this study, the researcher narrowed down the objectives and aimed to explore students' expectations and perceptions regarding deteriorating patients. Participants' answers categorized these expectations and perceptions into three main groups. Some students did not anticipate their patients' deterioration, finding it challenging to predict worsening in cases where signs and symptoms were not initially obvious unless they were accompanied by an underlying disease.

While preventing adverse events remains a primary focus in enhancing patient safety and treatment quality (Jarvelainen et al., 2018), the inability to identify and recognize deterioration cues can lead to fatal outcomes for patients and failure to provide timely rescue efforts. In instances where patients' conditions changed drastically, the events leading to death were not yet aligned, and there were no written orders for resuscitation (Waldrop et al., 2018).

The role of these students as first responders should not be underestimated. They encountered predictable deterioration and death scenarios during their clinical placements. Research suggests that prior experience in pre-arrest scenarios, coupled with knowledge about the patient's pathophysiological state and the typical trajectory and severity of illness, are essential (Gazarian et al., 2010; Liaw et al., 2011; Della Ratta, 2016).

Expectations and perceptions play a crucial role in improving health outcomes, patient compliance, and clinical results (Ardey & Ardey, 2015), although they might be misconstrued by healthcare workers due to the complexity of patient conditions. It's important to note that the findings are not generalizable, as they are limited to a single population from a local university in Kuantan. Conducting this study in a larger population might yield different results. Therefore, for future recommendations, replicating this study in different settings is advised. Additionally, it's noteworthy that this research was conducted without using funds from public, commercial, or not-for-profit organizations.

CONCLUSION

In conclusion, this study revealed that nursing students demonstrated willingness to respond to patient events despite encountering numerous challenges and barriers. The researcher assessed the students' descriptions of their understanding of deterioration during interviews as indicative of their ability to recognize such incidents early. Additionally, students shared their interpretations of patient expectations and perceptions. The

study also identified the students' readiness to respond to incidents and the barriers they encountered. Furthermore, students offered recommendations to improve their clinical learning experiences, suggesting a review of the nursing curriculum and enhancements to simulation exercises during theory sessions. This study highlighted the students' proactive approach to learning and their suggestions for enhancing their educational experiences within the nursing program.

Declaration of Interest

None

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Data Availability

None

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