ORIGINAL RESEARCH

Indonesian student nurses' perceptions of stress in clinical learning: A phenomenological study

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Abstract

Background: Clinical education is an essential part of the nursing education program. It aims to achieve a set of competencies, integrate the theory with practice and enhance critical thinking and decision making abilities in the clinical setting. However, clinical education has been recognised to be perceived as a stressful event, especially for novice nursing students or nursing students who have no previous clinical experiences.

Purpose: The purpose of this study was to explore and understand the meaning of lived experiences of stress for Indonesian novice nursing students in clinical education.

Methods: It was an interpretive qualitative study informed by phenomenology and, in particular, van Manen's method. Six Indonesian novice nursing students undertaking clinical education at a nursing school on the Indonesian island of Sumatera participated via an international telephone interview. Thematic analysis, proposed by van Manen, was used to analyse the data and capture the themes.

Results and conclusion: Three main themes emerging from the study were "feelings of pressure", "challenging relationships", and "using coping strategies". There were ten sub-themes, grouped as Clinical, Relationships and Responses and Coping. Nurses as educators play significant roles in assisting nursing students in clinical education to reduce feelings of stress, so that nursing students can undergo clinical education successfully.

Key words

Nursing education, Stress, Coping strategies, Clinical placements

1 Introduction

Clinical education is an essential part of the nursing education program. It is defined as "the provision of teaching in health sciences in the form of lectures, demonstrations, individual instructions and the supervision and assessment of practical application of therapeutic and patient care techniques" [1]. It is therefore compulsory for nursing students to undertake clinical education as an essential part of their learning process. Clinical education offers them an opportunity to achieve a

set of competencies, integrate theory with practice, enhance critical thinking and decision making abilities in the clinical setting and achieve and develop competencies as beginning practitioners as well as perform professionally in the clinical setting [2-5].

Clinical nursing education has been recognised as stressful for all nurses and strategies such as internships or mentoring programs have been employed for experienced nurses to ensure positive learning environments [6, 7]. For novice nursing students, clinical placements can be a particularly stressful event especially for nursing students who have no previous clinical experience [2, 8, 9]. Stressful experiences in clinical education could have an impact on the student's ability to solve problems and can also interfere with the intellectual process [10]. Moreover, Tully [11] argued that clinical stress experienced by nursing students could result in the failing of the placement, and lack of professional performance. Nursing students may also rethink their careers as nurses because of stressful experiences in clinical education [12].

Lazarus and Folkman [13] define stress as "a particular relationship between the person and the environment that is appraised by the person as taxing or exceeding his or her resources and endangering his or her well-being" [14]. They also introduce the theory of cognitive appraisal of stress, consisting of primary and secondary appraisal, and which apply well to clinical education. Through primary appraisal, nursing students undertaking and interacting in clinical placement are able to recognise the presence of stressors in the clinical environment that could jeopardize their resources and wellbeing. While through secondary appraisal, nursing students experiencing stress in clinical education reduce or eliminate stressors by making efforts to change the stressful conditions, so that they are not perceived as stressors.

There are some stressors in clinical education that have been identified by many nurse researchers, including tasks related to clinical competencies such as preparing written clinical assignments, performing clinical procedures and clinical evaluations [2,10,15,16] initial clinical experience [2,8], and specialty rotations such as psychiatric, maternity and community nursing [9-11,17] as well as building relationships and communication with patients [15, 16], nursing staff [2, 10, 18, 19], and peers [10,11].

Strategies used in responding to, and coping with stress among nursing students in clinical placement could vary from one person to another. Nursing students have been reported to respond physically to stress including increased heart rate and intestinal peristalsis, altered appetite, sleep deprivation, headaches and other physical effects. There are also psychosocial effects and examples are depression, mood changes, anxiety, withdrawal, panic attacks, nervousness, loss of control and inability to prioritise [10, 15]. Nursing students cope with stressful experiences in clinical education using a variety of strategies. According to Mahat [2], junior baccalaureate nursing students experiencing stress in the clinical setting generally used problem-focused strategies [studying hard, skills practice and problem analysis] more frequently than emotion-focused strategies [using relaxation techniques, crying, smoking and praying]. Stress levels could differentiate coping strategies used by nursing students. Tully [11] found that nursing students on specialty psychiatric placement experiencing high stress levels used coping strategies such as eating, drinking, smoking, trying to forget it or taking drugs, while students general placement experiencing lower level stress preferred to use problem-solving coping strategies including talking to others, getting help and seeking advice.

The Indonesian tertiary nursing education program has developed significantly in recent years using Kurikulum Ners, a national curriculum for nursing students. The curriculum was arranged and controlled by Asosiasi Institusi Pendidikan Ners Indonesia and the Indonesian Nursing Board. Indonesian tertiary nursing institutions usually enroll two types of students in their programs. The first pathway is that of senior high school graduates, known as "program A" students. These students usually have no previous clinical experience or are novice nursing students. The second pathway is that of diploma of nursing graduates upgrading to a Bachelor of Nursing degree, known as "program B" students. These students have usually worked in clinical settings and have clinical experience (these students were not interviewed for this study). As Indonesian novice nursing students have no previous clinical experience, they are most susceptible to experience stress in clinical education that can appear as a threatening and hectic event during the learning process [4, 8]. The purpose of this

study was to explore and understand the meaning of lived experiences of stress for Indonesian novice nursing students in clinical education. The worldwide shortage of working nurses and high rates of attrition of students signifies the importance of this study [20].

2 Methods

A qualitative interpretive research approach was chosen for this study because this approach enabled researchers to explore people's interactions and experiences in their life world [21] in meaningful ways [22] and to describe and interpret descriptions of experiential meanings with fuller and deeper understanding [14]. Van Manen [14] introduced and developed a research approach known as hermeneutic phenomenology to human science research and writing based on a pedagogical concept. His method involves both descriptive and interpretive phenomenology that provides some solutions for nurse researchers in how to deal with the difficulties of phenomenological bracketing or reduction [23]. The clinical educator's role, as researcher in this phenomenological study was to orientate to the phenomenon, investigate the lived experience, reflect and obtain the essential meaning, speak the language, maintain a strong and orientated relation and finally balance the research by considering parts and whole [14]. However, it can be difficult to avoid researchers' assumptions in the interpretation of the findings as van Manen states *"if we simply try to forget or ignore what we already 'know', we might find that the presuppositions persistently creep back into our reflections"*[14].

Purposive sampling was chosen for the study to provide rich and in-depth data [24]. To determine the number of participants, the data saturation principle was used [22, 24, 25]. As a result, six female Indonesian novice nursing students undertaking their clinical education stage in the Bachelor of Nursing program at one nursing school on the Indonesia island of Sumatera participated in the study. Telephone interviews rather than face-to-face interviews were conducted because of the long distance between the researcher and the participants and as a strategy to avoid high-travel costs and time constraints for student researcher studying internationally. The participants were all female due to cultural sensitivities as the interviewer was a female of Indonesian nationality.

Ethical approval was sought and granted by the relevant Monash University ethics committee, project number CF08/1136 -2008000545. Prior to telephone interviews, potential participants were provided with an explanatory statement of the study and informed that their participation was absolutely voluntary, free from coercion and that it would have no impact on their studies. If they agreed to take part, written informed consent stating that they agreed to be interviewed on the phone and this would be audio-taped was subsequently signed. Confidentiality and anonymity of data obtained were also assured. Furthermore, pseudonyms are used in the reporting of data to protect individuals.

In-depth semi-structured interviews ranging from fifteen to twenty-five minutes were conducted via an international telephone in Bahasa language between Australia and Indonesia. The interviews were transcribed verbatim and then the transcriptions were translated into English. The interviews were completed over a two-week period in July 2008. Thematic analysis proposed by van Manen [14] was used to analyse data and capture the themes. Sentences relevant to uncovering themes were selected and described in the sequence of their discovery to show how they were thematic of the phenomenon. This was presented in a decision trail through the illumination of data. Subsequently, the researcher wrote notes about thematic statements, using themes and sub themes to capture the meaning of lived experiences of stress for Indonesian novice nursing students in clinical education.

To ensure trustworthiness of this study, interviews were transcribed by the researcher and sent to participants via e-mail to check the accuracy of the transcriptions. No participant requested any change to be made. As transcripts were then translated into English for analysis, translations were checked by a bilingual colleague to ensure translations were accurate.

3 Findings

Three main themes and ten sub-themes emerged from the study. The three main themes were "feelings of pressure", "challenging relationships" and "using coping strategies".

3.1 Feelings of pressure

The first theme to emerge was "feelings of pressure". The stress experiences perceived by participants were caused by different types of stressors that they perceived as pressure namely: "clinical assignments", "clinical procedures", "clinical evaluation ", and "initial clinical experience".

Preparing clinical assignments was perceived as stressful, sacrificing sleeping time, overlapping between the assignments from previous and current rotations, and submitting the assignments punctually.

> *…the most stressful event was preparing clinical written assignments that consisted of pre planning reports, case reports, nursing care implementation plans and evaluations and those assignments all had to be written manually[Faiza].*

Another participant stated that:

> *…there were so many clinical reports that I had to submit, so in order to get them ready I sometimes slept for only 2 or 3 hours a day[Santi].*

Performing clinical procedures on patients also made participants feel stressed and pressured. This was due to potential for failed procedures, fear of hurting patients or making fatal mistakes, and perceived lack of clinical skills. One participant stated:

> *I was anxious that I would hurt patients when I performed such invasive procedures since I hadn't done the procedures perfectly… if I didn't follow the sterile principles correctly it could be fatal for patients[Alifa].*

While another participant described:

> *I felt unprepared to do such things [clinical procedures]. Additionally, there wasn't sufficient laboratory practicum in our academic learning sessions [Diana].*

These findings reinforce previous research that performing clinical procedures can be stressful for nursing students due to lack of experience [8], lack of preparation in both knowledge and skills [2, 15, 16], and fear of making mistakes [2]. Since there are similarities in the types of clinical procedures performed and provision of nursing care in each specialty rotation, it is reasonable to assume that students become more familiar and comfortable in undertaking such procedures.

Clinical evaluation produced stress for the participants since they were observed by academic and clinical instructors. One participant was really concerned about the clinical evaluation and reported:

> *Clinical examinations and the evaluations made me stressed as well because I was being observed by clinical instructors when providing nursing care to patients and if I made mistakes, I would be failed [Rina].*

This finding reinforces the fact that clinical evaluation produces stress for nursing students [10] because of the observations by clinical instructors [27]. Nevertheless, several studies have indicated that examinations during the academic learning process are perceived as stressors by nursing students [19, 28, 29]. Thus, it is implied that nursing students can experience stress caused by examinations both in the academic and professional stages of their Bachelor of Nursing program.

Stress on the first clinical experience was due to performing clinical nursing interventions on patients for the first time. Furthermore, they also felt confused and shocked on the first day in clinical practice. One participant reported:

> *Stressful experiences were caused by performing invasive procedures for the first time [Alifa].*

The initial clinical experience is frequently perceived as a stressor in clinical education by nursing students [2]. Having no previous clinical experiences and perceived lack of laboratory preparation could place the participants at risk of experiencing stress in the initial days of clinical education. The first rotation of clinical education affected students' feelings of stress.

> *I was very stressed when undertaking maternity nursing rotation as it was my first clinical experience and I became ill in the first week of clinical placement [Rina].*

Nursing specialty rotations have been recognised as stressful for nursing students in previous studies [9-11, 17]. Each specialty has its own characteristics that contribute to students' clinical learning. These characteristics can either enhance or impede clinical learning experiences. Thus, by identifying stressors in each specialty rotation, precautions can be made to minimise feelings of stress.

3.2 Challenging relationships

The second main theme emerging was "challenging relationships". All six participants described building relationships during clinical education as stressful and challenging. This main theme was divided into four sub-themes, namely: "relationships with patients", "relationships with clinical staff", "relationships with peers" and "relationships with community".

Participants described building relationships with patients challenging experiences. This was caused by aspects such as obtaining patients' trust, being rejected by patients and their families, being fearful of catching contagious diseases, looking after male patients, those having mental problems and with abusive behaviours, and providing information to patients. One participant stated:

> *…when I did an assessment on the patient, sometimes a family member was not cooperative and refused to answer my questions [Faiza].*

These findings are supported by the previous studies proposed by Sheu et al. [15] and Gorostidi et al. [16]. Relationship building with patients is important during clinical education in order to provide good quality care. Moreover, a safe clinical environment should exist to ensure nursing students' security in delivering care to patients.

Building relationships with clinical staff also challenged participants since they met unpleasant and unfriendly ward nurses in some rotations. Moreover, they experienced stress in building relationships due to the low status of the student and high expectations from ward nurses. One participant reported:

> *…building relationships with the hospital staff was so difficult as we are students. This has also driven me to feel stressed [Rina].*

Another stated:

> *…additionally, the ward nurses assumed we knew everything as we have got academic degrees, so they handed over most things to us. This was quite difficult since I didn't have any previous clinical experiences at all [Faiza].*

Previous studies have demonstrated that unfriendly interpersonal relationships with nursing staff and clinical instructors was a stressor in clinical education [2, 10, 19, 28]. Student status was seen to be a barrier to establishing positive relationships and communication with nurses in clinical settings [18]. However, two participants experienced meeting nurses who were communicative, cooperative, friendly and willing to assist them and this made the students happy to work alongside them. One claimed:

> *…they [ward nurses] were willing to explain things and showed me how to do this and how to do that. They were so welcoming about having students in the ward and my relationship with the ward nurses was good [Santi].*

As Chesser-Smyth [4] recognised, acceptance by clinical staff on the first day of students' clinical practice influenced their self-esteem and wellbeing.

Developing relationships with peers challenged students during clinical education as they had to adapt each other and work co-operatively. It was seen to be particularly beneficial to have peers with previous clinical experience to assist novice students in clinical settings and share their experiences. One participant stated:

> *…fortunately, my group has members from program B students who have previous clinical experiences, so I can learn from them and ask them questions relating to clinical matters [Anita].*

This finding reinforced previous studies finding that peers can provide support for nursing students [3 ,6, 7, 30, 31]. Gorostidi et al [13] suggest that building relationships and interacting with peers positively could reduce the occurrence of stress in clinical education.

Establishing relationships with families and the wider community challenged participants during community nursing placements. Due to different educational and economic status of communities, several stressful experiences were described by participants, such as how to communicate with community members.

> *…the stressful feelings experienced when doing community nursing placement was how to build good communication with the society as they have different educational and economic backgrounds that required us to adjust how we communicate with them effectively [Rina].*

3.3 Using coping strategies

The third theme that emerged was "using coping strategies". This theme was divided into two sub-themes, namely: "responses to stress" and "coping strategies". All six participants discussed how they responded to, and dealt with, stressful experiences in clinical education. Responses and strategies performed by the students were to help alleviate stress arising from clinical education.

Individual responses to stress varied between the participants. Generally, when participants experienced stress they would respond physiologically and psychologically. Sleep deprivation, altered appetite and headaches were commonly reported physiological responses, while panic, anxiety, sadness, sensitivity, withdrawal, mood changes and being upset were psychological responses. One participant described:

> *…sometimes my appetite altered and the quality of sleep was poor as I slept only a few hours with burdened feelings [Alifa].*

While another stated:

> *…when I felt stressed, my mood changed easily and I usually got upset and sensitive [Anita].*

These responses are congruent with previous research findings [10, 18]. Physical and psychological changes can have negative impacts for nursing students [18]. Thus, it is necessary for nursing students to anticipate responses, to minimise them and prevent interference with their wellbeing.

The impacts of stress could motivate someone to study harder or make them pessimistic. Participants discussed the positive impacts of stress that could motivate them to do better in their clinical performance. For instance,

> *…the effect of stress on my academic life was not too much as I supposed the stressed feeling was a common event and it occurred to advance me to do better in the future [Diana].*

> *…sometimes stressful feelings were needed to motivate us, but it also depends on the level of stress. Moderate and mild levels of stress could motivate and have power to self-recovery [Alifa].*

This finding is supported by Burnard et al's study [18] which postulated that stress could produce positive outcomes motivating nursing students to perform better. Stress in clinical education challenges students to identify and evaluate their weaknesses and this can be used to improve their performances in future clinical rotations.

Participants reported seeking various approaches to deal with stressful experiences, for example, practicing relaxation techniques, performing spiritual activities, talking and expressing feelings, trying to ignore the assignments, and running away from the stressful situation. For example:

> *…watching television or films and reading a book as well as browsing the Internet could help me to reduce my stressful feelings [Diana].*

> *…spiritual activities, for example, reciting the Holy Qur'an is the best way of coping, it helps me to calm down and gives me new energy to continue my clinical education [Alifa].*

Relaxation techniques used to reduce the tension of stress concurred with the findings of Mahat's [2], Shipton's [10] and Galbraith & Brown [20] studies. Using relaxation techniques when suffering from stress in clinical education could help the students to stay calm and think clearly in the clinical setting. Performing spiritual activities could calm students and realise that they have Allah to help them. This finding is similar with Burnard et al.'s study [18] of students in Brunei. They suggested that "prayer and nature" was one of the strategies used to reduce stress. This is likely to be because both countries have large Muslim communities where Islamic rules are implemented in their daily life. Geographically, they are also located in the same region, South East Asia.

Another meaningful strategy for alleviating stress which participants used was talking to, sharing with, and expressing feelings to best friends, family and peers. Talking and expressing feelings can reduce the burden and help them feel free from their problems. This strategy has also been identified in previous studies demonstrating that expressing feelings and talking to others, such as family members and best friends were coping strategies that were used by nursing students experiencing stress in clinical education [2, 3, 10, 11, 18].

Trying to ignore the assignments and avoiding stressful situation were also some participants' strategies to cope with stress in clinical education. This finding agrees with Tully's [11] study which found that trying to forget stressful events was a strategy used by psychiatric nursing students who suffered from high stress levels. However, avoidance behaviours as coping strategies had negative impacts on nursing students' health as Sheu et al.'s [15] study findings suggested. This is because the problems remain as they have not been solved or dealt with.

Participants in this study also used coping strategies to reduce stress in the clinical environment. Asking questions of their peers and observing ward nurses performing clinical procedures were strategies used by the participants.

As Diana said *"I asked my friends and also the ward nurses to show me how to perform the right procedures (invasive procedures)"*. And as Faiza reported,*"my experience in surgery ward, initially I couldn't do anything to the patients, so I just observed what the nurses did"*. By doing this, it meant that they tried to seek support and observation was a way to learn clinical procedures. Getting help and support from others, and seeking advice were coping strategies that were identified in both Mahat's [2] and Tully's [11] studies. Observation was a way to learn clinical skills practiced by the students. This agrees with Chesser-Smyth's [4] and Neill et al's [32] studies.

4 Discussion

Many previous studies have explored stress of undergraduate nursing students in clinical education. These studies have emerged from many different countries including the United States [2, 12], Ireland [4, 11, 19], Iran [30], Israel [8], Spain [16] and Brunei [18]. This study adds to this existing body of knowledge by adding an Indonesian perspective. Overall, the studies share many similarities, highlighting that clinical education is stressful for undergraduate students and that multiple factors play a role. Students find similar strategies for coping with their stress. There are some particularly noteworthy aspects arising from this study. Writing clinical assignments during clinical placements drove participants to experience stress and this has been found in previous studies [10, 17]. There was some influence of Indonesian culture where young must respect the aged both in the workplace where the young students must not complain if the older nurses give them more work, or the wards where older patients request greater assistance compared to other settings where independence would be encouraged. Female students feared looking after male patients as previously described. There was also stress because many of the aged spoke traditional languages rather than the national language of Bahasa Indonesia and communication was difficult.

Although preparing clinical assignments prior to commencing clinical education appears to stimulate the critical thinking ability of the students, it is necessary to consider whether having to write many types of clinical assignments might interfere with the process of clinical learning itself, as the students start the day of clinical education being unfit and not in fresh condition due to lack of rest time. Educators need to consider the amount of written work being expected of students during their placements in order not to hinder clinical learning.

Hence, reviewing the types and number of written clinical assignments which need to be completed during clinical rotations is important. Assignment patterns may need modification to make them simpler, while still enabling students to enhance their critical thinking, for instance, using concept mapping for the assignments [5]. In addition, approaches such as concept mapping may be useful in enabling students to generate connections between one patients' problem and another and stimulate students to think critically [33].

A student-friendly clinical practice environment can promote learning. This could be achieved by informing clinical nursing staff about the levels of preparation of students attending their settings and providing a range of supports such as orientation workshops, competency wall charts and on-site university liaison for example. In addition, clinical staff should treat the students fairly and not have unreasonably high expectations of them. Good relationships and communication between clinical and academic staff should be established, so the nursing staff feel respected and have a willingness to assist students in the clinical settings. Subsequently, support from clinical staff could make students feel confident interacting with patients.

There are some limitations to this study. Firstly, data collection was conducted via telephone interviews. This may have limited discussions as the researcher could not see participants' body language and reactions. Another limitation is that there were a small number of participants and all originated from one nursing school on the Indonesian island of Sumatera. Therefore, the findings of the study may not be generalisable to other students or settings. The exact levels of stress experienced by the participants could not be measured in this study as the study explored the stressful experiences of the

participants qualitatively not quantitatively. Indeed the positive and productive aspects of the students' experience may have been dominant if a comparative study was conducted.

This study has informed nursing about the lived experiences of stress for Indonesian novice nursing students in clinical education. It is recommended that the types and numbers of clinical assignments which are required of students on clinical placement are assessed for pedagogical effectiveness and that stress reduction intervention strategies such as peer mentors, relaxation techniques, study skills could be trialled in the Indonesian setting. Future research is recommended on cultural aspects of stress for Indonesian students from a range of settings, together with an investigation of the stressors associated with student nurses and the interdisciplinary health workforce. We now know what we did not previously know about perceptions of stress of the student nurse in the Indonesian setting. This will be of interest to the Indonesian nursing community locally and abroad, to Muslim and South East Asian/Oceania communities with cultural parallels and to the nursing workforce more broadly undergoing an examination of retention strategies.

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Competing interests

The authors declare that they have no competing interests.

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