

Research Article

Nurse-Midwife Students' Stress Resilience During Online Learning Amidst COVID-19 in Thailand: A Mixed Methods Study

Sirawan Karuna¹ Wareerat Jittitaworn^{1*}

¹Lecturer, Kuakarun Faculty of Nursing, Navamindradhiraj University, Bangkok, Thailand.

*Corresponding author: wareerat@nmu.ac.th

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Abstract

Objectives: To explore and understand the ability to recover from stress prompted by online learning amidst COVID-19 among the nurse-midwife students. **Methods:** This study was conducted using an explanatory sequential design. Two hundred nurse-midwife students participated in the quantitative part of the study using a stress resilience questionnaire adapted from Connor-Davidson Resilience Scale (CD-RISC). In the qualitative part, four focus groups were conducted until data saturation of a total of 20 students using semi-structured interviews with open-ended questions. **Results:** Nurse-midwife students suffered from stress caused by abrupt change amidst the COVID-19 crisis. Most of the 200 participants had moderate levels of stress resilience. In the focus groups the following key themes were identified: 1) recognising the effects of COVID-19 on learning and life, 2) perceiving change as a learning opportunity and a challenge that improves self-discipline, and 3) recovering with family, teacher, and peer support. **Conclusions:** Adaptability and resilience helped nurse-midwife students recover from stressful events caused by change in learning modes amidst COVID-19. Having stress resilience in the face of stressful experience will facilitate their transition to the nursing and midwifery profession and might improve their job retention in the future.

Keywords: resilience; nurse-midwife student; stress; online learning; COVID-19 pandemic

Significance of the problem

COVID-19 has spread rapidly in many countries around the world, causing life changes and stress among people. According to the National Statistical Office's report, 50% of Thai people experienced high levels of stress during the Coronavirus pandemic.¹ The number of Thais suffering from mental health problems is rising. The COVID-19 preventive measures, namely social distancing and restrictions on face-to-face communication, outdoor activity, and travel between cities or countries prompted cities, economies, and schools to shut down. As a result, the learning process of over 300 million students of high-school and undergraduate worldwide was disrupted.²

As COVID-19 is unlikely to be eradicated soon, distance education or online learning has become an alternative mode of learning. Early in the response to the pandemic, Thailand's Ministry of Higher Education, Science, Research and Innovation announced that higher education institutions must switch to fully online learning by 1 April 2020.³ This resulted in many higher education institutions' actively shifting towards online education and integrating technology into the classroom by using learning-facilitated applications, such as, E-Learning, Microsoft Teams, Google Classroom, Loom, ZOOM, and OBS which can be easily accessed through students' portable devices, such as, tablets and mobile phones. Such a transition signified disruption in the Thailand's education system and replacement by a new mode of learning made possible by the advancement of communication technology enabling learning to happen anytime, anywhere, in any circumstance.⁴

Kuakarun Faculty of Nursing, Navamindradhiraj University is a higher education institution that offers a four-year undergraduate nursing and midwifery program in Bangkok. Most of its nurse-midwife students live in the Faculty of Nursing's dormitory.

However, due to the university's COVID-19 preventive measures, all learning activities and assessments must be conducted online using different types of information technology supported by the university. Not being required to attend a physical classroom, all nurse-midwife students returned to their hometowns and studied at home.

The complete transition to online learning forced nurse-midwife students to adapt to an unfamiliar mode of learning that required the use of technology to which some of them have limited access. From the traditional classroom where students are guided closely by the teacher to online lessons, students must become more independent. Students have to take responsibility for their own learning by managing their own time, and adjust to studying online while staying at home with their families.⁵ This can result in learners' anxiety and stress, possibly leading to a sense of hopelessness, depression, and the risk of suicide. A UNICEF survey shows that Thai children and youth feel stressed and pressured by online learning, examinations, and future academic opportunities.⁶ Today's generation students are different from previous generations including the ability to express themselves in a clear, confident way and creative thinking; and they were born into a digital world. Nurse-midwife students have no difficulty using basic social media. However, they have limitations in terms of low patience, low emotional stability, and excessive focus on peers.^{7,8} For this reason, they may find online learning stressful because they cannot express themselves completely or sit and study for a long period of time. In addition, nursing and midwifery education is normally carried out through a variety of face-to-face learning activities, such as, small-group discussion, training at the Advanced Learning Centre, and clinical practice. Nurse-midwife students are not used to online learning, and being forced to study difficult subjects

on a computer all day can cause them stress.

Stress management is one of the factors that helps nurse-midwife students remain in their profession, but what's more important is resilience which allows them to effectively adapt to stress and other forces. Resilience is a person's reaction to internal and external forces or stress. It also refers to flexibility, adaptability, or the ability to recover from difficult situations.⁹ A large body of research has been conducted to explain this capability. According to previous studies, resilience is defined as the process of going through difficult times, adapting and correcting one's mistakes, enjoying things around oneself such as friends, family, and society, being aware of one's stress, anxiety or depression as it arises or disappears, and bouncing back to the normal state.¹⁰⁻¹² It is also described as the ability to adapt positively and thrive in the face of adversity or stress. This ability will allow students to face academic challenges amidst COVID-19, such as long online classes and excessive amount of homework caused by teachers' attempts to increase students' understanding during online learning.^{4,13} Resilience is a necessary trait for nurse-midwife students to become a practicing nurse and midwife. Other studies show that college students with resilience have positive perception of learning and positive mental health despite abrupt changes and stress.^{11,14} The sudden shift from onsite to online education and COVID-19 tensions can cause learning stress among nurse-midwife students and negatively impact their well-being, as well as their achievement of learning outcomes, especially among fourth-year students who are taking several classes to prepare for a transition to professional nursing practice. Apart from the unfamiliarity with online learning, nurse-midwife students' stress is also caused by this transition.

This study was conducted to explore and understand the ability to recover from stress prompted

by online learning amidst COVID-19 among the nurse-midwife students. The results can be used to plan and organize activities to enhance nurse-midwife students' mental health in times of crisis and improve their adaptability in work-related situations.

Research questions

1. How is nurse-midwife students' stress resilience during online learning amidst COVID-19?
2. How do nurse-midwife students recover from the stress of online learning during COVID-19?

Objectives

This study was conducted to explore and understand the ability to recover from stress prompted by online learning amidst COVID-19 among the nurse-midwife students of Kuakarun Faculty of Nursing, Navamindradhiraj University.

Research design

Conceptual framework

The ability to recover from stressful events or unpredictable changes is a desirable trait that will help facilitate nurse-midwife students' transition to professional practice. Dealing with stress caused by learning online within a limited time frame during the COVID-19 pandemic is a challenge for students. Academic success and self-efficacy can contribute to nurse-midwife students' ability to recover from stressful events. In addition, looking at a problem or frustrating situation as a challenge develops a positive mindset in the face of stress which will help take on future challenges.¹⁵ The internal and external support for academic success¹⁶ including self-understanding and coping strategies are able to support nurse students develop stress resilience.¹⁷ With help and encouragement from family, friends and teachers, students learn to develop these skills in a supportive environment.¹⁸ A conceptual framework

from literature reviews was used to explore and understand the way stress resilience of fourth-year

nurse-midwife students developed as presented in Diagram 1: Conceptual framework of the study.



Diagram 1 Conceptual framework of the study

Methods

This study employed an explanatory sequential design, focusing on both quantitative and qualitative methods. Firstly, data were collected using a stress resilience questionnaire adapted from the Connor-Davidson Resilience Scale (CD-RISC).¹⁹ Then, semi-structured interviews were conducted using open-ended questions with focus groups.

Population and sample

The population for quantitative data collection consisted of 200 fourth-year nurse-midwife students who were studying in Term 1, Academic Year 2020 at Kuakarun Faculty of Nursing, Navamindradhiraj University. The inclusion criteria were: 1) have enrolled on all mandatory courses, 2) have online learning experience, and 3) give consent to participation. Focus groups were conducted among voluntary students who had achieved different score levels of resilience (i.e. low, medium, high). The researchers collected qualitative data from 20 participants until data saturation had been reached.²⁰ The participants were divided into four focus

groups, five participants each. Each interview was transcribed and coded thematically.

Ethical considerations

Ethical approval for this study was obtained from the Institutional Review Board, Kuakarun Faculty of Nursing, Navamindradhiraj University on 8th September 2020 (KFN-IRB2020-19). The researchers protected the participants' rights by asking for consent to participation and preserving data confidentiality. The participants were also informed of their right to decide whether to participate and assured that all documents and questionnaires would be kept in a locked file cabinet and that data would be analysed as a whole and destroyed once the research had been published.

Instruments

1) A personal data questionnaire and a stress resilience questionnaire adapted from the Connor-Davidson Resilience Scale (CD-RISC):¹⁹ a 10-Item Measure of Resilience. The item responses were recorded on a Likert scale ranging from 0 (Never) to 4 (Always). Higher scores mean

higher resilience. Scoring criteria of stress resilience questionnaire is between 0-40 that has 3 levels; a low level of stress resilience (0-13); a medium level of stress resilience (14-27); and a high level of stress resilience (28-40). Content validity of this questionnaire was assessed by two nursing and midwifery experts and one psychiatric nursing. The Index of item Objective Congruence: IOC of this questionnaire was .82. Then, this questionnaire was further modified and tried out with twenty nurse-midwife students. Reliability of this questionnaire showed Cronbach's Alpha Coefficient .83.

2) The semi-structured interview questions revolved around five elements: self-understanding, challenge, strength, encouragement, and achievement. Questions about stress resilience were developed based on quantitative results and the resilience concept and were submitted to experts for content validity examination. The semi-structured interview questions were examined for content validity and the Index of item Objective Congruence: IOC by two nursing and midwifery experts and one psychiatric nursing. An IOC value of 1 was achieved. Some examples of the interview questions were represented in Table 1.

Table 1 Core concept and interview questions

Core concept	Examples of interview questions
Self-understanding	(a) How do you describe your emotions, feelings, and lifestyles during your online learning in the COVID-19 situation?
Challenges	(b) Can you explain your concerns about your online learning during COVID-19? (c) Did you perceive the problems caused by online learning during COVID-19 as challenges and how?
Strength	(e) Where did your strength and determination to learn online during COVID-19 come from?
Encouragement	(f) Did you believe that you would manage to learn online during COVID-19 and what made you think so?
Achievement	(g) What brings you to success and why?
Interview probe:	Could you please tell me more about that? Could you please explain more what it means to you?

Data Collection and analysis

A 15-item personal data questionnaire and a 10-item stress resilience questionnaire were used to collect data from 200 nurse-midwife students. General characteristics of participants were analysed using descriptive statistics. Descriptive statistics were also used to analysed stress resilience scores of the study participants. After that, the qualitative data were collected through four focus groups conducted among 20 nurse-midwife students. Each focus group took 60 to 120 minutes, with permission of all participants for recording during the interviews. The number of focus groups was conducted until

data saturation. Verbatim transcription of the content was conducted to understand the basic ideas and meaning of the participants' perspectives. Thematic analysis was used to analyse the qualitative data.²¹ The main themes were emerged from the focus group interviews.

Results

1) Participant characteristics in quantitative study

The participants consisted of two hundred, the fourth-year nurse-midwife students. The students' ages ranged from 20-41 years $M = 22.26$, $SD 3.39$). Majority of them (95.50%) were female. Their grade

points averages were greater than 3.00 (62%), between 2.50–3.00 (37.50%), and below 2.50 (0.50%). The majority grew up in nuclear families (76.00%) with medium levels of economic status (84%), and studied online in their bedrooms (46.50%) and inside their houses (40.50%). The most prevalent challenges faced by the participants during their

online learning were slow internet connections (32.90%), slow download speeds (29%), and expensive internet costs (27.70%). Most of them studied online via computer (37.60%), mobile phone (37.60%), and iPad (23%) and had high levels of positive relationships with their peers (58.50%) (See Table 2).

Table 2 General Characteristics of the Participants (N = 200)

General Data	Number	Percentage
Ages range from 20–41 years with M = 22.26 (SD 3.39)		
Sex		
Female	191	95.50
Male	9	4.50
Grade Point Average		
Below 2.50	1	.50
2.50–3.00	75	37.50
Over 3.00	124	62.00
Scholarship		
Received	44	22.00
Not received	156	78.00
Hometown		
Bangkok	47	23.50
Central Region	55	27.50
North Region	23	11.50
North-East Region	50	25.00
South Region	25	12.50
Parent Marital Status		
Living together	131	65.50
Living separately	21	10.50
Divorced	26	13.00
Father/mother died	22	11.00
Type of Family		
Nuclear family	152	76.00
Extended family	48	24.00
Type of Housing		
Single-story house	69	34.50
Two-story house	97	48.50
Townhouse	24	12.00
Condominium/apartment	3	1.50
Rental apartment/dormitory	7	3.50

Table 2 (Continued)

General Data	Number	Percentage
Member of Family M = 4.48, SD = 1.35 Range from 2-10		
Family Economic Status		
High (income higher than expenses)	10	5.00
Medium (income and expenses are equal)	168	84.00
Low (income lower than expenses)	22	11.00
Parenting Style		
Democratic	160	80.00
Permissive	30	15.00
Authoritarian	10	5.00
Online Learning Location		
Bedroom	93	46.50
Living room	17	8.50
Study room	6	3.00
Inside the house	81	40.50
Other (Outside the house)	3	1.50
Challenges Faced During Online Learning (one or more than 1 answer)		
Use of English language	21	5.80
Slow download speed	106	29.00
Expensive internet cost	83	27.70
Slow internet connection	120	32.90
Other (lost internet connection; indoor and outdoor noise; hot weather)	35	9.60
Devices Used for Online Learning (one or more than 1 answer)		
Computer	163	37.80
Mobile phone	162	37.60
iPad	99	23.00
Tablet	7	1.60
Level of Peer Relationships		
High	117	58.50
Medium	65	32.50
Low	18	9.00

2) Nursing Students' Stress Resilience During Online Learning Amidst COVID-19

The participants' resilience total scores ranged from 11 to 38 (total score = 40). The average score was 24.41 (SD = 5.51). Majority of

the participants (n = 130, 65%) reported medium levels of stress resilience (score between 14 and 27), while 31% reported high levels (score between 28 and 40) and 4% reported low levels (score between 0 and 13) (see Table 3).

Table 3 Levels of Stress Resilience (N = 200)

Stress Resilience	Number	Percentage
Stress Resilience (M = 24.41, SD = 5.51, Minimum = 11, Maximum = 38)		
Level of Stress Resilience		
Low (0-13)	8	4.00
Medium (14-27)	130	65.00
High (28-40)	62	31.00

3) Qualitative data: Key themes and quotes from exploring nurse-midwife students' experiences

The researchers conducted focus groups to understand their stress and experiences of the sudden change amidst COVID-19. All participants willing to participate focus groups had varied resilience scores. Two participants reported a low level of stress resilience. Nine participants had a medium level of stress resilience. Nine participants reported a high level of stress resilience. Three key themes emerged from the interviews: 1) recognising the effects of COVID-19 on learning and life, 2) perceiving change as a learning opportunity and a challenge that improves self-discipline, and 3) recovering with family, teacher, and peer support.

Theme 1: Recognising the effects of COVID-19 on learning and life

The outbreak of COVID-19 prompted a sudden shift from in-class education to online learning. Such change caused stress and anxiety to college students, especially to those familiar with traditional learning. The sudden change in learning modes forced students to understand and accept it despite their concerns about their unpreparedness. Most students recognised the effects of the COVID-19 pandemic on their lives, such as, the effect on how they manage their academic and daily life schedules and communicate them to their family members and the effect on their learning activities leading to the use of new different technologies. One student reflected: "I was shocked and worried

after seeing my schedule. Like how will it be? It's hard enough to study in class. Will I understand this enough to look after my patients? I was so stressed." (code_02) Another student said: "What's worrying me was the schedule that I received on my first day. Will I have time for this? Once I saw it, I wondered if I would have enough time and be able to manage it. I was used to studying in class and then I had to switch to online learning. How will I manage it? It was stressful." (code_07)

Most nurse-midwife students were aware that they must manage their own time while studying at home, which is their greatest concern when they planned their online learning. Most of them reflected that they had to manage the pressure of abrupt change, the tight learning schedule, and the distractions caused by their families and themselves at the same time. One student explained: "I live with my parents and grandparents, so we are a big family. They didn't understand why I was sitting in front of the computer all day and not helping with the housework. My mum often asked me to do the dishes and go outside to buy something for her. We talked and agreed at the beginning that I had to study from 8:00 am to 4:00 pm and that I had to sit in front of the computer all the time because the teachers told us to open our cameras. She didn't get it at first though." (code_12)

To adjust to the sudden transition, both students and instructors had to understand the situation and learn how to study and teach via

new educational technologies, such as, ZOOM and Google Meet. Not only were nurse-midwife students new to online learning, but instructors also had to adapt themselves to online teaching. All of these caused higher anxiety to students because they feared that their learning would be adversely affected. One student said: "Once I knew that I had to study online, I was worried because it was new to me. I struggled with ZOOM at the beginning, especially when I had online exams." (code_07) Most students were aware of the difficulties of online learning, such as, having to sit at a computer for long periods of time and having difficulty in asking questions or interacting in online classes. Excessive homework from teachers could also contribute to students' stress. Another student said: "I felt like we were alone in the sea and everyone wanted to survive." (code_14) On the contrary, some students were stressed by the assignment overload and viewed the Coronavirus outbreak as a complication. One student reflected: "It was so stressful. Going outside was hard. Studying was hard. And there were a lot of assignments. I think we should have interacted more in some classes. I even felt depressed sometimes." (code_14)

During online learning, nurse-midwife students also faced the increasing burden of both individual and group assignments. Discussing group work with team members and completing given tasks were difficult because all of them were studying at home. Nurse-midwife students were forced to experience stress and handle the arising pressure. One student reflected: "Sometimes we received individual assignments, sometimes we were assigned group work. Group assignments were so difficult and we felt a lot of pressure because we were studying at home. Besides, we had to submit the work online before the deadlines such as midnight. After we submitted it, we would wonder if it was sent to the teachers or if they received it,

something like that." (code_03)

Theme 2: Perceiving change as a learning opportunity and a challenge that improves self-discipline

One of online education's advantages is that all lessons can be recorded using technology, which allows students to review what they have learned to gain a better understanding by students. Most of students perceived the change in learning modes as a challenge that helps improve their self-discipline. One student expressed: "I was stressed at first because I had never studied online before. I would watch the recorded lessons when I was outside, but if it was live, I would stay home. I think doing this gave me more motivation." (code_05) Another student reflected: "The good thing about online learning is that it's challenging and helps us become more self-disciplined. Besides, my mum took care of my food when I was studying online, so it was like turning crisis into opportunity." (code_19)

Moreover, some students reflected that online learning not only gave them more enthusiasm, but also helped them focus better on their studies. One student said: "When I study online, I will focus on myself and the computer, right? But when I sit in a class with friends, I will focus on them and talk to them." (code_01) Another student said: "I got to spend time with myself while studying online. I could concentrate better in online classes than physical ones." (code_04) Students also reported higher stress caused by the switch to online learning which they had never done before, the increasing number of assignments, and the difficulties of online group work. Such problems, however, were viewed positively by some students who perceived them as learning opportunities and challenges that help build their mental toughness. One student said: "We had to change ourselves because we had to depend on ourselves, which is a good thing." (code_20). Some also expressed the challenge of online learning on

their self-discipline and time management. One student reflected: "I think I became more self-disciplined than before (smile), otherwise I cannot able to submit my homework on time. That what I thought it was how I felt." (code_15)

The majority of nurse-midwife students recovered from stress by adjusting their perceptions and focusing on their short-term and long-term goals for success. Some of them concentrated on passing each test, while some aimed at graduating with honors and securing a stable career to provide for their family. One student shared: "My main goal back then was to pass the tests with high scores. Grades were my goal criteria." (code_04) Another student said: "My goal right now is to get an honors degree." (code_06)

Theme 3: Recovering with family, teacher and peer support

Students with stress resilience can see abrupt changes as adaptation challenges and opportunities. Despite the pressure of online learning and constant change in education amidst COVID-19, most nurse-midwife students reported that they received support and encouragement from their families. Such support came in the forms of assistance with learning material preparation, cooking which brought happiness to students, and moral support given to students when they felt tired or discouraged or received bad test results. One student reflected: "My family supported me in every way. They always kept quiet when I studied online. Sometimes I had to print out my assignments. My mum would ask me if I had to print anything today so she could help. They always stood by for me because they could see my stress perhaps." (code_08) Another student said: "My family kept encouraging me and finding me something to eat during my lessons. They lifted my spirits, so I studied harder for them (laughed). I felt happier studying at home because I got to talk to my family, having proper conversations with

them. And we got to sit side by side and eat together, which we can't do at university. I was heartened." (code_17) In addition, students were supported by their peers who kept pushing one another throughout their distance learning, so they could overcome the crisis full of exhaustion, stress, and anxiety about changes amidst the pandemic. One student said: "During our online learning, we were confident and managed to turn crisis into opportunity with each other's support." (code_18) Moral support from instructors also played a role in strengthening students' mental toughness which helps them overcome difficult times. One student said: "Our instructors could see how stressed we were, so they would encourage us during our lessons. We were empowered by them." (code_05)

Discussion

Nurse-midwife students struggled with the abrupt shift from face-to-face to online learning prompted by the COVID-19 pandemic that has been going on around the world including Thailand since 2019. Being forced into an unfamiliar mode of learning, nurse-midwife students, especially those in the final year, became more stressed than ever. The quantitative findings of this mixed method study showed that most participants had good grade point averages (GPA > 3.00) (62%), studied online via computer or smart phone (37.60%), faced technical difficulties, i.e. slow internet connections (31.90%) and slow download speeds (29%), and received positive support from their families and friends during online learning (58.50%). The results also indicate that different students had different levels of stress resilience. According to previous research, students who have family, peer or teacher support,¹⁴ and experience in dealing with difficult or changing situations will recover from stress better.⁹

These qualitative results reflected students' experience, perception, and understanding with respect to the following themes: 1) recognising the effects

of COVID-19 on learning and life, 2) perceiving change as a learning opportunity and a challenge that improves self-discipline, and 3) recovering from stress with family, teacher, and peer support, leading to our understanding of how nurse-midwife students perceived their stress resilience amidst the COVID-19 crisis.

Becoming a nursing and midwifery professional is recognised as stressful and psycho-emotional demanding. Nursing and midwifery educational institutions always acknowledge building stress resilience under normal circumstances as being resilience that can support and help them achieve in their professions. Educational institutions can help learners have resilience by coaching and mentoring them. Building resilience is not easy and learners cannot build it suddenly, but learners are able to reflect and share their experiences and learn from them. It is necessary to explore how educators teach and how they facilitate learners to develop the skills needed to promote resilience.⁹ A growing resilience among nurse-midwife students can promote them to work in complex and challenging career environments. Building resilience in nurse-midwife students through targeted educational supports are likely able to address workforce burnout in the future.^{22,23}

Stress adaptability and resilience are desirable skills for students of all fields.²⁴ Today, there are many factors causing stress and adaptation among learners. Nursing and midwifery can be considered as high-pressure disciplines as they involve taking care of patients to ensure their safety and quality of life. To do so, nurse-midwife students are required to possess an accurate and deep understanding of their practice.²⁵ However, nursing and midwifery education has been affected by the global outbreak of COVID-19, resulting in a sudden shift from traditional to online learning and the increasing burden of assignments. The results

of this study indicate that nurse-midwife students recognised the effects of abrupt and frequent changes on their learning adaptation and that most of them had medium levels of stress resilience of $M = 24.41$, $SD = 5.51$. These insightful findings were explored in the interviews; most students perceived rapid changes as a challenge to be more discipline in order to achieve their learning goals. Similarly, a study by Rood, Tanzillo and Madsen²⁶ shows that nurse-midwife students found online learning amidst the pandemic difficult and needed social support to survive the crisis. In the result of this study, students recognised peer and family supports as main supports to cope with stress during the COVID-19 pandemic. Some of them perceived it as a challenge that helps improve their time management, as well as their self-discipline related to study planning. Such findings are consistent with another study which revealed that learners with psychological growth and self-awareness viewed COVID-19 as a positive challenge.⁵ The result of this study can be said that students' understanding and awareness of the pandemic's global impact played a vital role in their stress adaptability and resilience.

Learning new things while perceiving them as challenges, helps learners adapt and recover from stress better, whether such a perception comes directly from their desire to learn or indirectly from their anticipation of the benefits of learning new things in times of crisis. Nursing education causes stress to students as it requires thorough learning and hard work to ensure students' clear understanding before clinical training which also has become more intense due to the rising number of COVID-19 patients.¹⁴ Another reason is that nurse-midwife students may feel that they are responsible for studying hard to prepare themselves for front-line patient care during clinical training. Developing flexibility and resilience among nurse-midwife

students will not only improve their well-being in learning environments, but will also help them deliver better care for patients. Similarly, previous research suggests that flexibility helped students adapt and recover from stress, fear, anxiety, and depression caused by the COVID-19 pandemic.^{24,27,28} Accordingly, nursing and midwifery education should focus on developing students' flexibility and resilience which are essential to their adaptability in unexpected circumstances.²⁹

Support and encouragement from educational institutions, families, and peers play a role in learners' recovery from stress faced amidst COVID-19. The results show that social support from families, teachers, and peers contributed to nurse-midwife students' stress adaptability, which is consistent with another study which found that flexibility and stress adaptability positively impacted the quality of life among Filipino nurse-midwife students.¹³ Being aware of social support, namely help with group work, encouragement, and understanding from peers and instructors also helps enhance nursing students' stress adaptation and recovery after crisis encounters.^{30,31} In regard to families, most college students in ASEAN countries including Thailand still live with their nuclear or extended families. Although the majority of nursing students in this study reported fear and anxiety about their final year and awareness of the difficulties of online learning, many of them reflected that they had the opportunity to spend time with their families and make them understand how hard and complicated their learning is as found by Rood, Tanzillo and Madsen.²⁶

The present study not only discovered the levels of nurse-midwife students' stress resilience amidst COVID-19 through quantitative data, but also gained deeper insights into their experiences through focus groups. The findings can be used to promote flexible adaptation among students to

ensure their proper recovery from stressful events and unpredictable changes in the future. Having higher resilience will also help students maintain their professionalism in difficult circumstances. It also reassured those teaching students through adverse situations, can add to their learning experience and advantage them as they meet the challenges.

Limitation

This study is limited by the fact that only the perspectives and experiences of the fourth-year nurse-midwife students were explored. For a deeper understanding, future research could examine both students' and instructors' perspectives.

Conclusion

Nursing and midwifery disciplines are challenging to learners. Being able to manage and recovery from stress will help nurse-midwife students achieve their academic goals and get them ready for any abrupt changes during their career life. The main findings indicate that nurse-midwife students recognised and perceived the stress arising from the sudden change in learning modes as an opportunity to improve their self-discipline and managed to recover from the stress with support from their families, teachers, and friends. Being able to adapt and recover from pressure amidst the pandemic enabled nursing students to adjust and bounce back from stress that may occur during their transition to professional life. Also, it can help reduce their feelings of burnout; managing this may improve their job retention in the future.

Recommendation and implications

1. The results of the study can support the further implication that focuses on the preparation plan for the nurse-midwife students to overcome the stressful event about learning situation.

2. The qualitative results of the study can be used to perform implication and activities to encourage nurse-midwife students of perceiving stress as a challenge. The implication should include

social support from families, peers, and instructors that can help nurse-midwife students recover from stressful situations even more smoothly.

3. The results can be used to plan and organise activities to enhance nurse-midwife students' mental health in times of crisis and improve their adaptability in work-related situations. The stressful change in learning modes gave nurse-midwife students the opportunity to experience stress adaptation and recovery to prepare themselves for the nursing and midwifery profession.

Participation in article writing

Both authors contributed to this study. Author 1 conducted the quantitative part and analysis with the assistance of the second author. Author 2 conducted the qualitative part and analysis which was later contributed to and approved by both authors. Author 2 drafted the manuscript which was later contributed to and approved by both authors.

Conflict of interest

None declared

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