



Original Article

Mental well-being and self-care practice of nursing students amidst the COVID-19 pandemic: A cross-sectional study with mixed methods approach

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Abstract

Objectives: COVID-19 has created widespread fear, distress, and despair, and has resulted in lockdowns and school closures in Thailand, affecting nursing education. The purpose of this study was to examine nursing students' mental well-being and self-care practices throughout the pandemic and to identify the relationship between mental well-being and self-care practices.

Methods: A cross-sectional study involving 250 nursing students from a public nursing school in Thailand was conducted from July to August 2020. A set of questionnaires, including demographics, a Thai General Health Questionnaire, a Self-Care Practices Questionnaire, and focus group interviews were employed for data collection.

Results: The findings reported that 26% of nursing students had mental distress. Most students (73%) reported a good level of self-care by applying precaution techniques: distancing, mask-wearing, hand washing, temperature checking, and ThaiChana (D-M-H-T-T). In addition, the results revealed a significant, negative correlation between mental distress and self-care practices ($r=-0.216$, $p<0.01$).

Conclusion: These results emphasize the significance of self-care themes in boosting students' mental health. Academic institutions must focus on mental health awareness campaigns and implement early intervention programs to successfully assist students in these challenging situations.

Keywords: COVID-19; mental health; nursing student; self-care awareness; well-being

A few of the potential sources of stress that nursing students are exposed to include the pressures of the learning environment and classroom activities. Students deal with the experiences obtained during clinical rotations, and the chance of witnessing the distress that patients or their families are experiencing.^[1,2] Because of the nature of the sources of stress, there is a possibility that nursing students' mental health will suffer as a direct consequence. Nursing students

experience higher levels of stress, anxiety, and depression than the general population.^[3-5] Those who battle with mental health disorders are more likely to have a range of unsatisfactory outcomes, such as poor academic performance, lower empathy, and decreased work satisfaction.

Self-care is an essential component of mental health, and nursing students must be enabled to prioritize learning techniques for self-care to maximize learning while maintaining their men-

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tal well-being. A variety of activities that increase physical, emotional, and spiritual well-being are included in the category of self-care behaviors. Positive behaviors included exercising, meditating, and spending time with loved ones. It has been shown that nursing students who engage in self-care activities can reduce levels of stress and improve mental health outcomes.^[6]

However, strategies for improving nursing students' emotional well-being can be accomplished through a variety of methods. Nursing students can access to a wide number of services that may assist them in improving their mental health. One strategy consists of providing them with classroom information on mental health as part of their overall educational experience. This can include education on the signs and symptoms of mental health problems as well as offering them techniques for managing stress and encouraging self-care.^[7] Mental health resources that can be employed by colleges for nursing students include counseling services, support groups, and mindfulness programs.^[8]

This is an approach that can be used to reduce the risk of suicide among nursing students. In addition, nursing students could benefit from taking part in mentorship programs or peer support groups during their study program. Nursing students are able to connect with individuals. Peer support groups provide them to connect with others who are going through similar struggles. That is, nursing schools should provide various forms of self-care by promoting healthy lifestyles and allowing them to participate in diverse activities.

Mental health and self-care are crucial components of nursing education programs. Nursing students have a professional obligation to place a high priority to prevent suffering from compassion fatigue and burnout. By engaging in self-care activities and getting access to resources for mental health, nursing students can work toward achieving two goals at once: The management of stress and an improvement in their mental health. It is necessary for nursing schools to incorporate teaching on mental health, provide students with access to resources relevant to mental health, and encourage students to engage in self-care practices to support the mental well-being of nursing students.

Nursing students are often to fight with a demanding and taxing curriculum, which is essential for nursing programs. They are the significance of practicing appropriate self-care and maintaining a healthy mental state. They sometimes have to deal with a rigorous curriculum and instructional practices. Furthermore, they tend to be subjected to the pain and illness of other people on a consistent basis and can be emotionally exhausting. That is, it can lead to compassion fatigue, burnout, and other issues that are related to one's mental health. It is absolutely necessary for nursing students to place a high value on their mental health and engage them in appropriate activities

What is presently known on this subject?

- The study explored nursing students' mental health and self-care activities during the COVID-19 epidemic in Thailand. These findings showed that the pandemic caused mental health suffering and that self-care practices can help students cope with their mental health issues.

What does this article add to the existing knowledge?

- This study adds by demonstrating a strong, negative association between mental distress and self-care behaviors, emphasizing the need for self-care in maintaining nursing students' mental health during a pandemic.

What are the implications for practice?

- This finding contributes to the existing literature by providing an extensive comprehension of psychological distress and self-care practices during the outbreak among nursing students. It highlights the necessity of integrating mental health education and self-care strategies into nursing curricula while providing accessible mental health resources. This new knowledge can guide educators in promoting self-care strategies to improve students' well-being.

to lower the likelihood. They may experience problems related to their mental health in the future. The significance of mental health and self-care for nursing students, as well as assess several tactics that can be applied to increase their mental health.

Despite efforts to support nursing students' mental health, gaps remain in early screening, surveillance, and support systems. The lack of standardized protocols impairs effective interventions for mental health issues. More research is required to explore the impacts of pandemics on mental health and find effective alter solutions.

Materials and Method

Type and design: A cross-sectional study with mixed methods approach.

Quantitative Study

Population and sample: A cross-sectional survey was conducted from July to August 2020 among 250 of 612 undergraduate nursing students at a public nursing school in Thailand, recruited through stratified random sampling. The required sample size of 220 was determined using G*Power software for a χ^2 test of goodness-of-fit for contingency tables. This calculation was based on an effect size (w) of 0.3, an alpha error probability of 0.05, and a power of 0.95. The final sample size was increased to 250 students to accommodate potential non-responses.

Inclusion Criteria

The following criteria were included in the study:

1. Enrollment status: Currently enrolled undergraduate nursing students at the public nursing school
2. Voluntary participation: Students who voluntarily agree to participate and provide informed consent
3. Technology access: Students with access to a computer and the internet.

Exclusion Criteria

The following criteria were excluded from the study:

1. Incomplete surveys: Students who did not complete the survey
2. Health limitations: Students with severe physical or mental health issues affecting participation.

The majority (95.6%) of participants were female. There were studies in years 1–4 (24.8%, 24%, 25.2%, and 26%, respectively). The participants were studying classroom-based and clinical practice (53.2% and 46.8%). Most of the participants (88.4%) have computer and Internet access, whereas 11.6% have no internet accessibility.

Data Collection Tools

The study instruments comprised a structured questionnaire package composed of three sections.

1. Demographic questions: Age, gender, year of study, learning activity, computer, and Internet access
2. Thai General Health Questionnaire (Thai GHQ-12).

The GHQ-12 is a self-administrative screening instrument for mental health problems that occurred during the last 2 weeks before the assessment.^[9] The GHQ was translated into Thai in 1996 by Nilchaikovit, Sukying, and Silpakit having high reliability and validity, with a Cronbach's alpha of 0.94 and sensitivity and specificity rates of 89.7%.^[7] Thus, the Thai General Health Questionnaire is a reliable self-administered screening tool for mental disorders. It has been widely used for studies of various clinical and non-clinical populations.^[9-11] This study took place in a real-life setting, then the bimodal scoring method (0–0–1–1) was employed with a total score of 2 points or greater is considered a high risk of having psychological distress.

Self-care Practices Questionnaire

The self-care practices questionnaire was developed from the literature, comprising a 4-item Likert rating scale ranging from 1 (rarely) to 4 (regularly). A total score ranges from 15 to 60 and can be classified into three levels, including poor self-care (scored=15–30), moderate self-care (scored=31–45), and good self-care (scored=46–60). The self-care questionnaire is a well-validated screening instrument by three experts in the field, and it has demonstrated good internal consistency ($\alpha=0.82$).

Data Collection Process

Data collection involved the use of a structured questionnaire designed on a Google survey platform, with an attached consent form. The participants were invited to access the set of online questionnaires through the Line application, a social media platform. Upon receiving the link, the participants were provided with an information sheet and could give their

informed consent. Once they agreed to participate, a series of online questionnaires appeared sequentially. To ensure confidentiality and data reliability, the respondents remained anonymous. The final analysis included a total of 250 respondents, achieving a 100% response rate.

Qualitative Study

Population and Sample

The focus group discussion (FGD) technique approach was utilized to present the data. The sample comprised 32 individuals who were deliberately chosen from the original sample group that took part in the quantitative study and indicated their readiness to engage in the qualitative investigation. The 32 participants were divided into four groups, with each group consisting of eight students from the same class. The FGDs lasted 45 min and were conducted as a 1-time interview through Google Meet with two researchers who facilitated and video-recorded the discussions. The focus group conversation revolved around the following guiding questions:

1. Mental well-being during the pandemic period
2. Self-care practice is employed to manage mental distress or stress.

Data Analysis

Data analysis involves the use of descriptive statistics, such as mean, standard deviation, percentage, and frequency distribution. Pearson's correlation was employed to evaluate the magnitude and orientation of relationships between variables. The data collected from the FGDs underwent content analysis, a process used to derive significant findings and interpretations that are consistent with the knowledge framework of this research.

Ethical Responsibilities

This study was approved by the Ethical Review Board of Boromarajonani College of Nursing, Chiangmai. The study follows the international guidelines for human research protection mentioned in The Declaration of Helsinki and The Belmont Report: ERB No. BCNCT18/2563.

Results

Mental Well-being During the COVID-19

The participants reported mental health conditions with a total score of Thai GHQ-12 ranging from 0 to 11 ($M=1.35$, standard deviation $[SD]=0.14$). The majority of participants (74.0%) reported having healthy mental well-being. Remarkably, 26% of participants reported having mental distress (Table 1). A list of healthy mental well-being was reported as feeling reasonably

Table 1. General health status by Thai General Health Questionnaire-12

Mental well-being	n	%
Normal	185	74.0
Mental distress	65	26.0
Total score=12 M=1.35, standard deviation=0.14, Min=0, Max=11		

happy (94.4%), capable of making decisions (93.2%), and being able to face problems (91.2%). However, they reported having mental distress with the following symptoms: feeling constantly under strain (20.4%), not overcoming difficulties (14.4%), and feeling unhappy and depressed (13.6%), as illustrated in Table 2.

Self-care Practices During the COVID-19

The participants rated their self-care score from 32 to 60 (M=48.58, SD=5.06). The majority of participants (73.2%) demonstrated good self-care, whereas 26.8% showed moderate self-care (Table 3). A list of self-care activities during the COVID-19 pandemic is shown in Table 3. Most participants (88.8%) always wore a mask while staying with others or going out. They regularly kept to social distancing guidance, distancing themselves from others and staying at home at all times (82.4%) even though only 30.4% separated personal stuff from other family members. About half of the participants washed their hands regularly. The details can be shown in Table 4.

Many participants described that they took good health care, with 99.2% regularly eating newly cooked food and 88.8% using a personal spoon. However, only a few participants regularly exercised (46.0%) or practiced meditation regularly

Table 2. Mental well-being of participants by Thai General Health Questionnaire-12

From the last 2 weeks, how do you rate your feeling...	Positive		Negative	
	n	%	n	%
Feeling reasonably happy	236	94.4	14	5.6
Capable of making decisions	233	93.2	17	6.8
Able to face problems	228	91.2	22	8.8
Playing a useful part in things	225	90.0	25	10.0
Able to enjoy day-to-day activities	218	87.2	32	12.8
Able to concentrate	200	80.0	50	20.0
Felt constantly under strain	51	20.4	199	79.6
Could not overcome difficulties	36	14.4	214	85.6
Feeling unhappy and depressed	34	13.6	216	86.4
Losing confidence	22	8.8	228	91.2
Loss of sleep over worry	21	8.4	229	91.6
Thinking of self as worthless	13	5.2	237	94.8

Table 3. Levels of self-care of participants

Levels of self-care	Self-care	
	n	%
Good self-care (scored=46–60)	183	73.2
Moderate self-care (scored=31–45)	67	26.8
Low self-care (scored=13–30)	0	0
Total score=60 M=48.58, standard deviation=5.06, Min=32, Max=60		

Table 4. Self-care activities of participants

From the last 2 weeks, how often you...	Good Self-care	
	n	%
Stay at home/residence at all times	243	97.2
Separate personal stuff and belongings from other family members	181	72.4
Keep distancing at least 1–2 m from other family members	124	49.6
Wash hands with soap/liquid before and after touching other items or people	235	94.0
Wear a mask/cloth mask every time while staying with others or going out	245	98.0
Eat newly cooked food	248	99.2
Eat using a personal spoon	222	88.8
Exercise	115	46.0
Meditate or do other relaxing activities	140	56.0
Keep up with the news of the diseases	233	93.2
Ignore those who use words or express negative behaviors through various media	136	54.4
Share the correct information with family, friends, and community members	237	94.8
Give mask or alcohol gel to the family, friends, and community members	220	88.0
Show empathize and understand to the suspect or infected	233	93.2
Support family, friends, and community members who have impacts	231	92.4

Table 5. Relationship between self-care practice and mental well-being

	Self-care practice	Mental distress
Self-care practice		
Pearson correlation	1	-0.216*
Sig. (2-tailed)		0.001
n	250	250
Mental distress		
Pearson correlation	-0.216*	1
Sig. (2-tailed)	0.001	
n	250	250

*: Correlation is significant at the 0.01 level (2-tailed). Sig.: Significance.

(56.0%). About 93.2% of the participants reported that they often followed news updates and 94.8% shared the correct information about diseases with family, friends, and community members. Only 54.4% ignored negative words/behaviors or fake news regularly. Interestingly, the participants offered support to family and friends (92.4%), showed empathy (93.2%), and gave away masks or alcohol gel to others (88.0%).

Relationship Between Mental Well-being and Self-care Practices

The study examined the association between mental well-being and self-care practices using the Pearson product-moment correlation coefficient. The results revealed a

significant, negative correlation between mental distress and self-care practices ($r=-0.216, p<0.01$). Remarkably, higher levels of self-care were associated with reduced mental distress among the participants (Table 5).

The Impact of COVID-19 on Nursing Students

Four major themes (Fig. 1) emerged from the FGDs on the impact of COVID-19 on nursing students: Academic performance and clinical skills, financial strain, mental health and well-being, and support and interaction needs. Students adopted self-care practices that complied with the D-M-H-T-T guideline to deal with these issues. These precautions and guidelines include keeping a physical distance, wearing masks, regular handwashing, monitoring body temperature, and using the ThaiChana platform to track COVID-19 cases.

The impact of COVID-19 on nursing students: Four themes emerged from the FGD can be described as follows:

Academic Performance and Clinical Skills

The COVID-19 epidemic had a substantial impact on conventional learning settings, forcing students to transition to online education, which presented several challenges. Nursing students had difficulties in reaching their learning objectives and developing their clinical skills, both of which are crucial components of their education. The absence of practical experience and authentic training caused an obstacle for students in gaining a sufficient level of readiness for their prospective careers.



Figure 1. Impact of COVID-19 on nursing students: Four themes emerged from focus group discussion.

"The essence of the nursing curriculum lies in the clinical practice that enhances nursing abilities through real-life training. It is challenging to achieve this through online learning. I am not sure if I am fully prepared for future professional work." (FGD12)

"...The failure to achieve adequate clinical learning outcomes frustrates us. Students need to interact with real patients to develop a positive attitude and the ability to provide care and empathy to patients." (FGD32)

Financial Strain

The pandemic had a significant financial impact, increasing stress levels among nursing students. The expenses of safety equipment and the need to purchase online learning materials and reliable Internet connectivity caused financial burdens. Furthermore, parental job losses and less income increased the financial burden, further limiting students' opportunities to continue their education. Examples of participants mentioned: *"The cost of buying protective equipment has been overwhelming, and it increases the stress and anxiety during these difficult times."* (FGD06) *"Financial problems caused by job loss has been unpleasant. I'm concerned about finishing my school among these unforeseen circumstances."* (FGD30)

Mental Health and Emotional Well-being

Stress and anxiety levels among nursing students were extremely elevated due to the pandemic. A significant factor was the stress of maintaining academic performance in online courses, as well as the fear of being infected with COVID-19, especially when traveling by public transportation. The limitations on social activities and recreation during the lockdowns increased feelings of loneliness and mental suffering. As two students mentioned:

"Using public transport for essential travel was anxiety-inducing. The fear of contracting the virus while commuting added to the stress of going outside." (FGD13)

"The restrictions on social activities have taken a toll on my mental health. I miss the joy of spending time with friends and engaging in hobbies that used to bring me happiness." (FGD09)

New Normal Self-care Practices

The qualitative study revealed significant new normal self-care practices adopted by participants during the COVID-19 pandemic. Which aligns with the D-M-H-T-T guideline, including:

D – Distancing: Maintain physical distance from others to reduce the risk of virus transmission. This involves avoiding crowded places and keeping a safe space at least 1–2 meters from others in public settings. One participant shared, *"I made sure to wear a mask whenever I went outside, and I maintained distance from others to protect myself and my family."* (FGD08)

M – Mask wearing: Wearing a mask helps to prevent the spread of respiratory droplets, which are a primary transmission route for the coronavirus, especially in public areas and when interacting with others. A participant reported *"I made sure to wear a mask whenever I went outside."* (FGD08)

H – Handwashing: Regularly wash hands with soap and water for at least 20 s or use hand sanitizer with at least 70% alcohol. This practice helps to remove viral particles picked up from surfaces, as mentioned by one of the participants: *"I used my spoon to avoid sharing utensils, and I made sure to wash my hands thoroughly and frequently."* (FGD11)

T – Temperature check: Regularly monitor body temperature to detect fever, a common symptom of COVID-19. One participant shared, *"I checked my temperature every morning before heading out to ensure I wasn't developing a fever."* (FGD15)

T – Thaichana platform: Use the Thaichana platform, a digital tool developed by the Thai government to track and trace COVID-19 cases. This platform assists in monitoring and recording the movements and interactions of individuals, enabling quicker response and control in case of an outbreak as mentioned by a participant *"I kept myself updated with reliable news sources and shared verified information with my friends and family to prevent the spread of misinformation."* (FGD31)

Discussion

The purpose of this study was to examine nursing students' mental well-being and self-care practices throughout the pandemic and to identify the relationship between mental well-being and self-care practices. During the pandemic, students' mental health and self-care are critical issues.^[12,13] The National Emergency Decree in Thailand resulted in city lockdowns, travel restrictions, public gathering prohibitions, and social and physical distance.^[14] The BCNC shifted classroom-based learning activities to online platforms and offered students information about the pandemic and required safeguards.^[15,16]

This study explored students' mental health issues during the pandemic, reporting that 26.0% of students had mental distress. Consistent with findings from previous studies reporting that nursing students are more vulnerable to psychological distress with low levels of happiness but high levels of stress,^[17] having significant levels of psychological distress,^[18] experiencing symptoms of anxiety, depression, and stress.^[12] Furthermore, nursing students in India had experienced a moderate stress level due to COVID-19; nursing students in Spain had increasing stress levels during the lockdown.^[19] Nursing students in Nepal had stress and fear of delayed graduation.^[20] Nursing students in Jordan felt stressed due to distance learning.^[21] Overall performances of Turkish nursing students were also affected as experienced moderate levels of anxiety during the COVID-19.^[22]

Besides anxiety and stress due to the pandemic, the nursing students reported good levels of self-care practices. They regularly applied infectious protective methods: Distancing from others, mask-wearing, hand-washing, temperature checking, and observing infected symptoms. In addition, most participants reported taking good health care by eating newly cooked, exercising, or meditating. They regularly updated news and shared the correct information on COVID-19 with others. Remarkably, most participants reported regular support to family, friends, and community members with empathy. The school provided information and prevention methods such as distancing, mask-wearing, hand washing, temperature checking, and ThaiChana (D-M-H-T-T) to students during the lockdown and continued support through an online application.^[23] Thus, students have sufficient information and know-how to prevent themselves, resulting in a high level of self-care. Consistent with findings from the study in Croatia, most students were anxious about getting infected, leading to strictly applying protective methods for themselves and others in the community in a professional role.^[24]

This study highlighted the relationship between self-care practices and mental distress among nursing students during the pandemic. That is, better self-care helps to improve mental well-being. According to previous studies, students with high self-care scores were more likely to have lower psychological distress scores.^[25–28]

The professionalism shown by the students. They were giving masks and hand sensitizer to others. Furthermore, they were giving clear health messages to their communications. This display of professional behavior even at the time when they felt distressed demonstrates the attributes of the nurse. It seems clear that they overcame some of their stress using professional behaviors and knowledge. They used their professional knowledge and understanding to increase their mental well-being by the practice of good self-care protecting themselves and others. Expectations, beliefs, and trust from the community. They found themselves in a trusted position among their communities.

Strengths and Limitations

This study aimed to explore the impact of the COVID-19 pandemic on mental health and self-care among nursing students. The data of this cross-sectional study were collected online, relied on self-reported, and were limited to only one public nursing school, which could cause bias and limitations. Future research should explore preventive interventions for promoting nursing students' mental health, for example, mindfulness programs, telehealth, mental health applications, and virtual support groups.

Conclusion

Nursing students demonstrated effective self-care during the COVID-19 pandemic, applying infected-prevention measures such as D-M-H-T-T. However, lockdowns and limited Internet access led to increased mental health distress. The study suggests providing practical self-care practices, online resources, and mental health surveillance strategies can improve health and well-being. This information can inform health professionals, educators, and policymakers to propose operational practices, modify curricula, and develop mental health education strategies for nursing students.

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