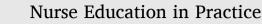
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# Doctorate Studies

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# Wellness among nursing students: A qualitative study



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ARTICLE INFO	A B S T R A C T	
Keywords: Facilitators Barriers Nursing students Qualitative descriptive Wellness	Nursing students typically experience high levels of stress and anxiety in nursing schools, and this is often compounded by having to combine complex classroom theories with practice. Healthy behaviors are subse- quently neglected, diminishing academic efficiency and personal wellbeing. Student nurses need to adopt healthy lifestyles since wellness has been shown to promote positive health outcomes. Nonetheless, studies on the perception of wellness, and descriptions of its facilitators and barriers in wellness promotion among nursing students remain limited. This qualitative descriptive study aimed to explore facilitators and barriers to promote wellness among nursing students, comprising 64 females and 16 males. Four themes emerged from content analysis regarding the facilitators of promoting wellness: <i>healthy living; belief in animism; self-optimism;</i> and <i>receiving</i> support. Barriers to wellness were three themes of stressors involved in students' lives: <i>pressure from</i> <i>instructors; behaviors of staff nurses;</i> and <i>being perceived as untrustworthy.</i> It is vital to promote wellness among nursing students to encourage their health care choices and to support them through their studies.	

# 1. Introduction

Nurses are at risk for poor health outcomes due to unhealthy behaviors and their work patterns. In the USA 2730 hospital nurses were found to have serious lack of sleep, deficits in diet, and physical inactivity that had the potential to injure their health and cause negative impacts to the profession (Priano, 2018) as well as the quality of care given. Likewise, nurses in Asia revealed poor health caused by working conditions which affect being able to provide high-quality care (Makabe et al., 2018). Nurses unable to adopt and maintain healthy lifestyle behaviors are at risk for diseases and early mortality, but unhealthy lifestyles also occur in nursing students. At a time when there are critical shortages of nurses around the world and studies indicating high attrition in nursing practice (Marć et al., 2019), the profession has to be mindful of the need to support nursing students so that they can successfully graduate and build up nursing numbers. There are many and varied reasons why students leave or stay in nursing (Cameron et al., 2011). Our aim in this study to identify student nurses' perceptions of wellness, specifically exploring the facilitators of, and barriers to promoting their wellness in northern Thailand. This is because they typically face problems from academic stress, affecting their health and often damaging their academic performance (FitzGerald, 2015). Students have a loss of leisure time due to study requirements and complicated assignments during clinical placement, and this affects their physical and mental health, lack of critical thinking, and problem-solving (Turner and McCarthy, 2017). To maintain and improve health depends on wellness behaviours that reflect a healthy lifestyle, and enhance well-being (Stoewen, 2015).

# 1.1. Background

Nursing students are the professional nurses of the future; thus, a focus on wellness should help them maintain good health before handling the health of others (Banu and Mobarak, 2016). A perception of poor wellness may lead to less engagement in good self-care practices or poor adherence to treatment programs, while a perceived good or excellent level of wellness may be associated with good personal self-care (Idler et al., 2004). Adams et al. (2000) supported the idea that if a person changes their perception, they can change attitudes and ultimately behaviors. Studies have found that physical inactivity in nursing students affects their physical health (Kara and Iscan, 2016; Paopong et al., 2011). There are several stressors that nursing students

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encounter that negatively affect their mental health and emotions, and intellectual ability, including the clinical environment (Flott and Linden, 2016); nursing staff behavior (Celebioglu et al., 2010); behaviours of school of nursing staff and clinical instructors (Cooper et al., 2011); and the fact they are new to nursing, to the profession and hospital environments (Watson et al., 2017). Stressors prevent students from undertaking physical activities and affect other dimensions of health, critical thinking and problem-solving (Popil, 2011). Considering the negative effects of such stressors, nursing students should be concerned with their health and pay more attention to activities to promote this (Blake et al., 2017).

Van Lingen et al. (2011) revealed that wellness positively impacts academic performance and an active physical lifestyle has a convincing relationship with stronger academic outcomes in higher education. Nursing students concerned with their health pay more attention to activities that promote this (Blake et al., 2017). Brajsa-Zganec et al. (2017) emphasized the importance of personal and social variables in predicting well-being in nursing students, while Adam et al. (1997) defined wellness as salutogenic or health-focused, and argued it was important to consider multiple factors, such as cultural, social, and environmental influences on health.

Wellness comprises six dimensions: physical, spiritual, psychological, social, emotional, and intellectual (Adams et al., 1997), and has a focus on personal responsibility, in which individuals contribute towards living to their own fullest potential, not just in terms of individual dimensions, but also as an integrated whole. Van Lingen et al. (2011) explored the relationship between undergraduate nursing student wellness and academic outcomes, and found physical wellness as the weakest area, whereas social, emotional and spiritual wellness were all strong. However, these study results may not explain the wellness among nursing students in a Thai context because, as Adam et al. (1997) stated, wellness can be affected by culture, society, and environment. Especially, culture plays a crucial factor in beliefs about well-being among Thai people, including nursing students (Jaiin et al., 2017).

Thai nursing students are faced with many stressors during their study, especially in their third and fourth year when they attend clinical practice for >6 months each year, and this does not include all other activities they have done to attend throughout the whole year. Stressors such as work overload may lead to ill health and affect their health care choices. Thus, it would be helpful to understand the facilitators and barriers to promoting students' wellness within the cultural context of Thailand, for perceived wellness influences the choices for people to on decide their health behaviors, such as preventing illness through health screening (Foottit and Anderson, 2012). There is a paucity of knowledge about nursing students' wellness in Thailand, as well as in other countries, and investigation regarding this matter is warranted if such students are to graduate successfully and be in the best of health for nursing work.

### 2. Methods

#### 2.1. Design

A qualitative descriptive approach was undertaken using focus group discussions (FGDs) was used to gather data. This is a practical method of choice when a straightforward description of the phenomenon is required, without concentrating on analysis of the meaning of what participants say (Sandalowski, 2000). Such a design is appropriate to discover the perspectives and worldviews of participants, and create an understanding of the phenomenon through accessing meanings participants ascribe to them (Bradshaw et al., 2017). Focus groups are a very efficient way to elicit opinions and to gain rapid an early understanding of an area (Morse and Niehaus, 2016).

# 2.2. Sample and settings

The settings were two nursing colleges in northern Thailand. A list of participants in each college was obtained from the homeroom teacher, then the principal investigator (PI) contacted potential students to explain the study in their classroom. Selecting participants who are like one another in experiences, views, and characteristics are believed to facilitate open discussion and interaction (Gray, 2017). Eighty participants eventually volunteered to enter the study and were purposively selected as having met the inclusion criteria of being third or fourth nursing students with experiences of both classroom learning and clinical placements. Exclusion criteria were students on sick leave or feeling unwell, or those absent in clinical practice during the period of data collection.

# 2.3. Data collection

The PI was trained in qualitative methods and data analysis and conducted all FGDs during March-April 2018 for around 60–90 min each session. Each of these included a recommended maximum of 10 participants (Holloway and Garvin, 2017). There were 40 students from each college, in total 80 participants, to try to assure data saturation. A research assistant acted as note-taker and all groups agreed to be audio-recorded. Broad questions guiding the discussion were carefully developed by the PI and supervisory team using appropriate literature and aimed to explore the facilitators and barriers influencing wellness among nursing students. Guiding questions were: *What do you think about your total health? What do you understand about wellness? And how is yours? What are the facilitators that contribute to your wellness? What are the barriers that are obstacles to your wellness?* and *How could you promote wellness by yourself?* 

#### 2.4. Ethical considerations

This study was approved by the Research Ethics Committee of the Faculty of Nursing, Chiang Mai University (Research ID: 173–2017; Study Code: EXP 106–2017) and the research settings. Before each group discussion, the participants received verbal explanations about the study. The aim and methods of study were explained as well as their rights to confidentiality and anonymity. Written consent was obtained from each participant, who had the right to refuse to participate without any effect on their study program.

# 2.5. Data analysis

Recordings of each FGD were transcribed verbatim by the PI. The transcriptions, field notes, and other notes taken during FGDs by the research assistant were content analysed by the PI, using the process described by Graneheim and Lundman (2004). The data was verified before analysis by the participants checking their transcript, then each transcript was checked and read whilst repeatedly listening to the digital recordings. During line-by-line reading of the transcripts, the keywords, phrases, and sentences relating to the facilitators and barriers of wellness among participants were able to be extracted and underlined as meaning units. Then these were coded and condensed. When all FGD transcripts had been coded, sub-themes were developed by clustering together the condensed meaning units that shared common content (Graneheim and Lundman, 2004). These codes, and the subsequent sub-themes and themes, were reviewed by the PI and her advisors until consensus was reached.

# 2.6. Trustworthiness

Credibility and confirmability need to be examined to determine that the trustworthiness of findings has been achieved (Streubert and Carpenter, 2011). Credibility in this study was established through triangulation, member checking and peer debriefing (Holloway and Galvin, 2017). The PI conducted data triangulation by gathering information from both third and fourth nursing students from two different settings, as well as FGD note taking and field notes, to enhance data validity. Member checking was done by asking the participants to verify that their explanations and interpretations were accurate (Birt et al., 2016). Transcribed scripts of the FGDs and summaries of findings were sent back to participants for confirmation to support the credibility and validity of the study findings. For peer debriefing, the PI had an expert advisory team able to facilitate the consideration of methodological activities and to provide feedback concerning the accuracy and completeness of the data collection and analysis procedures (Streubert and Carpenter, 2011). Confirmability was reached using the technique of an audit trail, through the process of checking and rechecking the raw data, and the analysis and synthesis of data throughout the study (Elo et al., 2014).

# 3. Findings

This study explored the facilitators and barriers to promoting wellness among nursing students in northern Thailand. The 80 participants comprised 64 females and 16 males whose ages ranged from 20 to 25 years. Most lived together in dormitories provided by their nursing colleges. Data analysis resulted in five major themes; Themes 1–4 have two sub-themes each, and Theme 5 has three sub-themes (Table 1).

# 3.1. Theme 1: Healthy living

Healthy living refers to the participants' perceptions that they had a good living environment that provided them with needed facilities to encourage their healthy lifestyle.

Sub-theme 1: Good living environment for physical health refers to students' communal living in the dormitories, and nearby facilities. A good environment for physical health was considered to provide various facilities, where extra-curriculum activities could be undertaken with friends, and enabling Internet access to search for healthy information, for example:

Living at the dormitory benefits me ....I can do an exercise in the fitness room with friends. (FGD1).

Sub-theme 2: Good living environment for buying healthy foods Participants found they could easily buy healthy foods that included the five food groups at the fresh and organic markets near their dormitory. They believed that eating good food made them healthier, for example:

The fresh market near my college is a good choice to buy food that contains the five groups of food like I need. (FGD3).

#### 3.2. Theme 2: Belief in animism

Animism refers here to the expression of participants' beliefs in something that they could not see but could feel or sense. They were spiritually-based beliefs that had been passed down through the

#### Table 1

Themes and sub-themes of the study.

Themes	Sub-themes
3.1 Healthy living	3.1.1 Good living environment for physical health
	3.1.2 Good living environment for buying healthy
	foods
3.2 Belief in animism	3.2.1 Spiritual anchors
	3.2.2 Making wishes to supernatural powers
3.3 Self-optimism	3.3.1 Positive thinking
	3.2.2 Being a well-adjusted person
3.4 Receiving support	3.4.1 Support from family and friends
	3.4.2 Connecting with others
3.5 Stressors of student life	3.5.1 Pressure from instructors
	3.5.2 Behaviors of staff nurses during clinical training
	3.5.3 Being perceived as untrustworthy

generations in their culture. Participant beliefs in animism were explained through the sub-themes of *spiritual anchors* and *making wishes* to supernatural powers.

Sub-theme 1: Spiritual anchors were objects that participants received from parents and other significant people. Two objects mentioned by almost all participants were *chai pa tung mae* (a piece of one's mother's sarong) and a powerful Thai talisman or amulet such as *Takrud*, for protection or good luck, for example:

When I was practising at the hospital people passed away ... so I took Takrud, with me. I felt safe from bad spirits. (FGD4).

Participants considered these objects could protect them from bad luck, ghosts, and evil forces. Many articulated that keeping a piece of their mother's sarong with them made them feel safe and comfortable, and they felt as if their mother was with them.

Sub-theme 2: Making wishes to supernatural powers were explained as students making wishes to ancient guardian spirits such as *Phe Pu Ya*. A guardian spirit house was located at the hospital where the students could pay respects and pray to have success during clinical placement. They perceived that after praying about their cases, they were able to get what they needed. One group detailed their thoughts as follows:

When we were practising in the labor room ... we went to the guardian spirit house at the hospital and prayed for delivery cases. Finally, we got the cases that we wanted. (FGD1).

# 3.3. Theme 3: Self-optimism

Self-optimism referred to positive experiences in participants' daily lives. They tried to express a positive attitude about themselves, even as they faced difficult situations, and to do the best for every task in their life. Self-optimism was believed to come from positive thinking and being a well-adjusted person.

Sub-theme 1: Positive thinking was part of the participants' perception of themselves. Some explained that positive thinking is a part of their personality, especially when they are faced with an unexpected or unpleasant event. They all attended a meditation course during semester break which helped them achieve inner calmness and to deal with stress better, for example:

I believe that positive thinking always makes me happy ... (that) I could overcome any obstacle or difficulty. (FGD3).

Sub-theme 2: Being a well-adjusted person refers to participants' perceptions of how they have attuned themselves within their new environment as students, such as when nursing in clinical wards:

I try to learn how the nurses do their jobs in each procedure ... if I perform the right steps. (FGD1).

#### 3.4. Theme 4: Receiving support

The students described the importance of receiving support from family and friends that was much needed when difficult situations arose. Connecting with other people in social activities also allowed students to fulfil this need for support.

*Sub-theme 1:* Support *from family and friends* There were several kinds of support provided by family, friends, and significant others, including financial and emotional support:

When I was stressing, I would call my mom and dad or close friend because they could make me feel better. I also told my close friends. For me, they were able to support me when I was down. (FGD7).

Sub-theme 2: Connecting with others focused on activities with high school friends and others in their social circles. Participants explained that they met up with other people on weekends, and during trips to Buddhist temples. Joining an activity with other people gave them energy and made them feel stronger. One participant explained:

I like to go to the temple and listen to Buddhist teachings. I meet with other people and they help me reflect on and think about my own life. (FGD5).

# 3.5. Theme 5: Stressors of student life

Stressors were considered as barriers that made them struggle in student life to promote their wellness, and most often clinical placements at the hospital were viewed as barriers. Some stressors there made them lose their self-regard and self-esteem.

Sub-theme 1: Pressure from instructors. Students believed that often their clinical instructors had poor quality teaching methods, and they always asked them about points that they did not know the answer to. Even when students could answer some questions, instructors would go deeper into the question. This teaching method caused anxiety and a lack of confidence, and students had to concentrate on another topic that did not relate with their patient at the time:

The instructor asked about other related points that I had not read about (and) I thought, 'Why doesn't the instructor just teach me without asking?' (FGD6).

Sub-theme 2: The behaviors of staff nurses during clinical training made students feel that nurses were unfriendly to them and would ignore them or watch attentively for a mistake, and they often felt bullied. These behaviors caused them to feel apprehensive during clinical practice. They were not stimulated to challenge their brains, or they did not want to learn new knowledge from some staff nurses. The majority of participants complained about these behaviors, for example:

Some staff nurses look at student nurses like there was nothing there. ... Sometimes they asked us to do difficult procedures without teaching us. (FGD2).

Sub-theme 3: Being perceived as untrustworthy refers to the participants' perception of others' opinions during practice in the clinical ward when they felt they were not trusted to do the work. Students were willing to do patient care, but some patients would not allow them to do it:

I got an assignment from the instructor to do an intravenous injection, but the patient would not allow me to do it .... I felt disappointed with myself. (FGD7).

#### 4. Discussion

To discuss the facilitators and barriers to wellness among the participants that arose from the data, we developed Tables 2 and 3 below, displaying these in four dimensions:

#### 4.1. Facilitators

Findings indicated that receiving support from family friends and significant others were important to assist participants to achieve social wellness among participants. Snook and Oliver (2015) indicated that social support could facilitate wellness, and this concurs with our findings. Family, friends or peer groups are often those who share common features concerning students' health and bodily condition (Harrison et al., 2016), and our participants engaged with their social wellness

### Table 2

Facilitators Perceived to Promote Wellness Among Nursing Students. Social wellness dimension.

Wellness dimension	Category	Sub-categories
Social	Receiving	Support from family, friends
	support	Connecting with others
Spiritual	Belief in	Spiritual anchors
	animism	Making wishes from supernatural powers
Psychological	Self-optimism	Positive thinking
		Being a well-acclimated person
Physical	Healthy living	Good living environment for physical health Good living place for buying healthy foods

#### Table 3

Perceived barriers to pron	note wellness among	nursing students.
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Wellness dimension	Category	Sub-categories
Emotional Intellectual	Stressors of student life	Having high-workload assignments within little time Pressure from instructors Behavior of staff nurses during clinical training Being perceived as untrustworthy

dimension by keeping up connections with or meeting other people. The majority of them were female and Baldwin-White et al. (2017) contended that women have a significantly higher need for belonging than men. This need is a basic human motive and reflects an individual's subjective sense of connectedness with family, friends, and social memberships (Ashktorab et al., 2017). Thus, family and friend's involvement in the social dimension helped to strengthen our participants' minds to work on developing wellness, give much-needed support and recognition of their needs. For example, parents' and friends' involvement in student activities such as the Thai nurse capping ceremonies (Jaiin et al., 2017) is an example of support and recognition, and the importance of maintaining wellness.

# 4.2. Spiritual wellness dimension

Spirituality is an essential facet of human beings, assuming a critical factor in individuals' lives (Wu et al., 2012). The Thai nursing students in this study believed in animism, which involved spiritual anchors, or tangible links to loved ones, such as taking a piece of their mother's sarong with them to college and keeping it close by for comfort. They ask supernatural powers to grant wishes, and this culturally-based belief system was linked closely with their sense of wellness. Their beliefs seemed to have been passed down since ancient times from one generation to the next. Many of the traditions and beliefs of people in Thailand stem directly from the Buddhist principles combined with animist beliefs. The cultures of bordering countries to Thailand (Burma, China, Laos and Cambodia) have also played an early important role in forming the traditions and indigenous belief systems, such as animism (Malikhao, 2017).

Thai nursing students are encouraged to participate in religious activities and Buddhist holidays, but Adam et al. (1997) indicated that spiritualism and religion are not synonymous. In Thailand, people have animist belief systems linked closely with nature, architecture and social behaviors, not forming part of Buddhism. The most prominent feature of animism in Thailand is the spirit house situated outside homes, banks, and hospitals, and just about anywhere people work or gather, and where people pay respects to the spirits in the environment. An example of this is that when undertaking maternity clinical placements, students made a wish for good delivery experiences at the spirit house in the hospital grounds. They believed that the ancient ancestors and good spirits could grant great favours for those who paid respects to them.

#### 4.3. Psychological wellness dimension

Participants performed regular exercise that may have helped them deal with stress. Regular exercise improves self-image, self-esteem, and creativity (Preto et al., 2018). Motamed-Jahromi et al. (2017) explained that positive thinking can raise self-esteem and that a person's quality of work and give them a sense of purpose and belief in a bright future. Participants perceived that possessing self-optimism facilitates their psychological wellness, and described that trying to be a positive thinker, a well-adjusted person, when faced with an unexpected or unpleasant event would be an indication of psychological wellness. Such optimism could exist when they applied positive thinking to events in their lives. Hence, optimism is related to positive outcomes in

relationships in general and is possibly a result of health promotion to maintain psychological well-being (Parveen et al., 2016). When students in this study were participating in an activity or clinical practice they tried to use self-optimism and described that if they were well-adjusted, this helped them to have a high perception of psychological wellness. Parveen et al. (2016) stated that psychological well-being indicates physical and mental wellness and that females are more optimistic and psychologically healthier than males. Perhaps this can be related to the fact that most of our participants were female.

#### 4.4. Physical wellness dimension

Participants expected that having physical activities and eating healthy foods would make their health stronger. The World Health Organization (World Health Organization, 2010) recommended that regular activity is crucial for general well-being. Collectively most participants performed regular group exercises such as running, walking, and the exercises of their favourite star. From the results of this study, the participants were generally following the guidelines recommended by the WHO. Physical activity is a critical component of a healthy lifestyle and nursing students must be aware of this during their educational tasks with self and others to promote healthy living (Cilar et al., 2017). All of the participants living on college campuses were expected to participate in the physical activities one way or another. It is important to familiarize nursing students with healthy living because habits adopted when young are more often maintained throughout life (Cilar et al., 2017).

Most participants were pleased that their living environment contained not only amenities for physical activities but also access to fresh markets, where they could buy a portion of healthy cooked food, with lots of vegetables, and thus could avoid eating too much junk food. This is similar to findings from Greece, where female nursing students frequently ate more green vegetable than male students (Evagelou et al., 2014), but in contrast with a Cambodian study evidencing that nursing students consumed a lot of junk food, and ate fewer vegetables than they needed (Rodriguze-Gazquez et al., 2016).

#### 4.5. Barriers to wellness among nursing students

#### 4.6. Emotional wellness dimension

In Thailand, like elsewhere, nurses have many roles, for example as a supporter, researcher, and supervisor. The role of nurse educators and clinicians are highly relevant to nursing students while they are on clinical placement, teaching and providing support. Such nurses are not only important in education but also during the nursing socialization process of students (Mingpun, Srisa-ard and Jumpamool, 2015). However, clinical learning was not always a positive experience for our participants, as some nurses were not willing to teach nursing students or did so in a manner that was not educative. Whilst this may be due to their high workloads in clinical settings, but alarmingly, our participants felt they were at high risk of experiencing negative clinical learning environments due to the lack of support from experienced nurses or the stressors they experienced. Students need to experience good learning experiences in practice, but nurse behavior is a stressor that can cause low self-esteem among nursing students (Ren et al., 2015). Participants complained about their supervision by some staff nurses who make them feel stress and burnt out. They either ignored them or watched attentively for them to make a mistake, and this contributed to the participants' lack of a sense of belongingness. This behavior can cause low self-esteem and satisfaction, anxiety, depression, high level of stress, and increased tension in clinical practice (Ashktorab et al., 2017). Supportive and welcoming clinical environments facilitate in people a sense of belonging and motivation (Honda et al., 2016).

The bullying behaviors of staff nurses during clinical training toward students is evidenced in several studies, for example, Ren et al. (2015) found more than 75% of students in Korea experienced bullying during

their clinical training, affecting their emotional wellness. A bullying culture and inappropriate interactions with staff nurses have been mentioned by Iranian nursing students. Signs of bullying include excessive blaming of students for little mistakes, continuous monitoring of students without specific reasons, and humiliation for their choice of profession (Aliafsari Mamaghani et al., 2018). Hence, participants who encounter stressors during their studies might have effects on their hormonal mechanisms, decreasing the levels of endorphin and serotonin, which are responsible for elevating self-esteem and a sense of well-being (Preto et al., 2018). Bullying experiences will be a cause of negative outcomes for nursing students, including low self-esteem and low academic major satisfaction (Ren et al., 2015).

# 4.7. Intellectual wellness dimension

Findings revealed that having a high-workload assignment, pressure from instructors, the behavior of staff nurses during clinical training, and being perceived as untrustworthy by instructors, staff nurse, and patients affected nursing students' intellectual dimension and their abilities to learn about care for a patient. High workloads limited their free time to do other activities that could facilitate their ability to think critically. It is therefore important to identify best practices about student workloads so that they learn better and attain wellness (Smith, 2019). Participants experienced pressure from instructors who relied on traditional methods of teaching during clinical practice; students had less chance to ask questions or think critically due to limited time and information overload. Critical thinking skills may be formed during the nursing education program (Gaberson et al., 2015) but the above stressors identified by the participants were perceived as obstacles to their ability to think critically.

### 4.8. Implications for nursing education, practice and research

This study provides rich insights into the multiple dimensions of wellness from student nurses' perspectives in Thailand. Understanding of the above findings can equip hospital administrators and nurse managers with knowledge to promote a training environment where students are supported and inspired in clinical settings. This includes teaching staff nurses about their roles as supportive educators and implementing clear policies that include that bullying behaviors are not acceptable. Nursing instructors need to carefully examine their teaching methods in both theoretical and clinical settings to facilitate a supportive learning environment for students. Future nursing research could examine different perceptions between nursing students from the universities and colleges, private and public, and help develop strategies to promote wellness among students.

# 4.9. Limitation of the study

Students in Thailand are taught in faculties of nursing in both public and private universities, as well as in nursing colleges. Data in this study were obtained only from students from two public nursing colleges which may be a limitation of this study's findings. Thus the further investigation of the phenomena of wellness needs to be explored in both private and public settings, in universities and colleges.

#### 5. Conclusions

Several stressors caused obstacles to the wellness of nursing students, affecting their self-esteem, and they perceived this reduced their lack of critical thinking and reasoning. An academic program should be encouraging and allowing students to learn in an environment of stimulating intellectual activity included mental challenges and critical reasoning, both of which require concentration. In summary, our findings describe the perception of wellness from a holistic perspective in the various life dimensions of college nursing students, outlining their

explanations of the facilitators and barriers influencing wellness. Thus, the findings will be useful to both nursing educators, hospital staff and nursing students to promote their wellness and good health, which in turn helps to promote wellness and health care for patients, and potentially will help to keep nurses nursing.

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# CRediT authorship contribution statement

**Chonticha Amattayakong:** Conceptualization, Formal analysis. **Kannika Kuntaruksa:** acquisition of data, Formal analysis.

#### Declaration of competing interest

No conflict of interest has been declared by the authors.

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# Appendix A. Supplementary data

Supplementary data to this article can be found online at https://doi.org/10.1016/j.nepr.2020.102867.

### References

- Adams, T.B., Bezner, J.R., Drabbs, M.E., Zambarano, R.J., Steinhardt, M.A., 2000. Conceptualization and measurement of the spiritual and psychological dimensions of wellness in a college population. J. Am. Coll. Health 48, 165–173. https://doi.org/ 10.1080/07448480009595692.
- Adams, T.B., Benzer, J.R., Steinhardt, M.A., 1997. The conceptualization and measurement of perceived wellness: integration balance across and within dimension. Am. J. Health Promot. 11 (3), 208–218. https://doi.org/10.4278/0890-1171-11.3.208.
- Aliafsari Mamaghani, E., Rahmani, A., Hassankhani, H., Zamanzadeh, V., Campbell, S., Fast, O., Irajpour, A., 2018. Experiences of Iranian nursing students regarding their clinical learning environment. Asian Nurs. Res. 12 (3), 216–222. https://doi.org/ 10.1016/j.anr.2018.08.005.
- Ashktorab, T., Hasanvand, S., Seyedfatem, N., Salmani, N., Vahide, S., 2017. Factors affecting the belongingness sense of undergraduate nursing students towards clinical setting: a qualitative study. J. Caring Sci. 6 (3), 221–235. https://doi.org/10.15171/ jcs.2017.022.
- Baldwin-White, A., Kiehne, E., Umana-Taylor, Mardiglia, F., 2017. In pursuit of belonging: acculturation, perceived discrimination, and ethnic-racial identity among Latino Youths. Soc. Work. Res. 41 (1), 43–52. https://doi.org/10.1093/swr/svw029. https://search.crossref.org/?q=Baldwin-White%2C+A.%2C+Kiehne%2C+E.%2C+ Umana-Taylor%2C+Mardiglia%2C+F.%2C+2017.+In+pursuit+of+belonging%3A +acculturation%2C+perceived+discrimination%2C+and+ethnic-racial+identity+ among+Latino+Youths.+Soc.+Work.+Res.%5C.
- Banu, S., Mobarak, S.A., 2016. Prevalence of obesity among nursing students at college of applied medical sciences, Wadi Al Dawasir. SCIREA Journal of Clinical Medicine 1 (2), 220–232.
- Birt, L., Scott, S., Cavers, D., Cambell, C., Walter, F., 2016. Member checking: a tool to enhance trustworthiness or merely a nod to validation? Qual. Health Res. 26 (13), 182–1811. https://doi.org/10.1177/1049732316654870.
- Blake, H., Stanulewicz, N., McGill, F., 2017. Predictors of physical activity and barriers to exercise in nursing and medical students. J. Adv. Nurs. 73 (4), 917–929. https://doi. org/10.1111/jan.13181.
- Bradshaw, C., Atkison, S., Doody, O., 2017. Employing a qualitative description approach in health care research. Global Qualitative Nursing Research 4, 1–8. https://doi.org/10.1177/2333393617742282.
- Brajsa-Zganec, A., Lipovan, L.K., Ivanovic, D., Larzen, Z.P., 2017. Well- being of nursing students: role of affect regulation, self- esteem, family cohesion and social support. Open Publ. Health J. 2017 (10), 69–79. https://doi.org/10.2174/ 1874944501710010069.
- Cameron, J., Roxburgh, M., Taylor, J., Lauder, W., 2011. An integrative literature review of student retention in programmes of nursing and midwifery education: why do students stay? J. Clin. Nurs. 20, 1372–1382. https://doi.org/10.1111/j.1365-2702.2010.03336.x.
- Celebioglu, A., Akpinar, R.B., Kucukoglu, S., Engin, R., 2010. Violence experienced by Turkish nursing students in clinical setting: their emotions and behaviors. Nurse Educ. Today 30 (7), 687–691. https://doi.org/10.1016/j.nedt.2010.01.006. Epub 2010 Feb 2.

- Cilar, L., Preloznik, N., Stiglic, G., Vrbnjak, D., Pajnkihar, M., 2017. Physical activity among nursing students. De Gruyter Open 16 (1), 30–35. https://doi.org/10.1515/ pielxxiw-2017-0005.
- Cooper, J.R.M., Walker, J., Askew, R., Robinson, J.C., McNair, M., 2011. Students'
- perceptions of bullying behaviors by nursing faculty. Issues Educ. Res. 21 (1), 1–16. Elo, S., Kääriäinen, M., Kanste, O., Põlkki, T., Utriainen, K., Kyngäs, H., 2014. Qualitative content analysis. Sage Open 4 (1), 1–9. https://doi.org/10.1177/ 2158244014522633.
- Evagelou, E., Vlachou, E., Polikandrioti, M., Koutelekos, I., Diusis, E., Kyritsim, E., 2014. Exploration of nursing students' dietary habits. Health Sci. J. 8 (4), 452–468.
- FitzGerald, L.Z., 2015. Categorization and determinants of physical activity among nursing students. J. Nurs. Educ. Pract. 5 (5), 10–20. https://doi.org/10.5430/jnep. v5n5p10.
- Flott, E.A., Linden, L., 2016. The clinical learning environment in nursing education: a concept analysis. J. Adv. Nurs. 72 (3), 501–513. https://doi.org/10.1111/jan.12861. https://search.crossref.org/?q=Flott%2C+E.+A.%2C+Linden%2C+L.%2C+2016.+ The+clinical+learning+environment+in+nursing+education%3A+a+concept+an alysis.+J.+Adv.+Nurs.+72%283%29%2C+501-513.
- Foottit, J., Anderson, D., 2012. Associations between perception of wellness and healthrelated quality of life, comorbidities, modifiable lifestyle factors and demographics in older Australians. Australas. J. Ageing 31 (1), 22–27. https://doi.org/10.1111/ j.1741-6612.2011.00526.x.
- Gaberson, K.B., Oermann, M.H., Shellenbarger, T., 2015. Clinical Teaching Strategies in Nursing. Springer, New York.
- Gray, J.R., 2017. Qualitative research methods. In: Gray, J.R., Grove, S.K., Sutherland, S. (Eds.), Burns and Grove's the Practice of Nursing Research: Appraisal, Synthesis, and Generation of Evidence, eighth ed. Elsevier, St. Louis, Missouri.
- Graneheim, U.H., Lundman, B., 2004. Qualitative content analysis in nursing research: concepts, procedures and measures to achieve trustworthiness. Nurse Educ. Today 24 (2), 105–112. https://doi.org/10.1016/j.nedt.2003.10.001.
- Harrison, P.L., Shaddox, L.M., Garvan, C.W., Behar-Horenstein, L.S., 2016. Wellness
- among dental students: an institutional study. J. Dent. Educ. 80 (9), 1119–1125.
  Holloway, I., Galvin, K., 2017. Qualitative Research in Nursing and Health, fourth ed.
  Wiley-Blackwell, Oxford.
- Honda, K., Levett-Jones, T., Stone, T.E., Maguire, J.M., 2016. Japanese nursing students' sense of belonging: a story of Uchi (insider) and Soto (uotsider). Nurse Educ. Pract. 20, 85–92. https://doi.org/10.1016/i.nenr.2016.07.004.
- Idler, E., Leventhal, H., Mclaughlin, J., 2004. In sickness but not in health: self-ratings, identity, and mortality. J. Health Soc. Behav. 45, 336–356. https://doi.org/10.1177/ 002214650404500307.
- Jaiin, P., Lorga, T., Sangwichit, C., Paisantuksin, P., 2017. A model for humanistic nursing learning outcome development for Thai nursing student. In: Proceedings of the 2017 ANPOR Annual Conference. In: hpptps://journal.anpor.net/index.php /proceeding/article/view/64. Accessed date: 12 February 2019.
- Kara, B., Iscan, B., 2016. Predictors of health behaviors in Turkish female nursing students. Asian Nurs. Res. 13 (1), 75–81. https://doi.org/10.1016/j. anr.2015.12.001. Epub 2016 Jan 27.
- Malikhao, P., 2017. Culture and communication in Thailand. In: Servaes, J., Kong, H. (Eds.), Communication, Culture and Change in Asia. Springer Nature Gateway East, Singapore.
- Marć, M., Bartosiewicz, A., Burzyńska, J., Chmiel, Z., Januszewicz, P., 2019. A nursing shortage – a prospect of global and local policies. Int. Nurs. Rev. 66, 9–16. https:// doi.org/10.1111/inr.12473.
- Makabe, S., Kowitlawakul, Y., Nurumul, M.-S., Takagai, J., Wichaikhum, O., Wangmo, N., Asanuma, Y., 2018. Investigation of the key determinants of Asian nurses' quality of life. Ind. Health 56 (3), 212–219. https://doi.org/10.2486/ indhealth.2017-0066.
- Mingpun, R., Srisa-ard, B., Jumpamool, A., 2015. Strengthening preceptors' competency in Thai clinical nursing. Educ. Res. Rev. 10 (20), 2653–2660. https://doi.org/ 10.5897/ERR2015.2468.
- Morse, J.M., Niehaus, L., 2016. Mixed Method Design Principle and Procedure. Taylor & Fransis, New York.
- Motamed-Jahromi, M., Fereidouni, Z., Dehghan, A., 2017. Effectiveness of positive thinking training program on nurses' quality work life through smartphone application. International Scholarly Research Notices 6. https://doi.org/10.1155/ 2017/4965816, 2017, Article ID 4965816.
- Parveen, F., Maqbool, S., Khan, S.M., 2016. Optimism as predictor of psychological well being among adolescents. The International Journal of Indian Psychology 3 (4), 158–167. https://doi.org/10.25215/0304.154.
- Paopong, S., Khampiranon, U., Chantarasathaporn, S., 2011. Healthy behaviors of nursing students at boromarajonani college of nursing, nakhonratchasima. The Journal of Boromarajonani College of Nursing, Nakhonratchasima 17 (1), 81–92.
- Popil, I., 2011. Promotion of critical thinking by using case studies as teaching method. Nurse Educ. Today 31 (2), 204–207. https://doi.org/10.1016/j.nedt.2010.06.002. Epub 2010 Jul 23.
- Preto, V.A., Carcia, V.P., Araujo, L.G., Flauzino, M.M., Teixeira, C.C., Parmegiane, R.S., Cardoso, L., 2018. Perception of stress in nursing academics. Journal of Nursing UFPE 12 (3), 709–715. https://doi.org/10.5205/1981-8963-v12i3a231389p708-715-2018.
- Priano, S.M., 2018. Lifestyles and health-related outcomes of U.S. hospital nurse: a systematic review. Nurs. Outlook 66 (1), 66–76. https://doi.org/10.1016/j. outlook.2017.08.013. Epub 2017 Sep. 5.
- Ren, L., Kim, H., Jung, M.S., 2015. The association between bullying experiences related to clinical placement and psychological well-being in nursing students. Journal of Korean Academy of Community Health Nursing 26 (4). https://doi.org/10.12799/ jkachn.2015.26.4.321.

#### C. Amattayakong et al.

Rodriguze-Gazquez, M., Chaparro-Hernandez, S., Gionzalea-Lopez, J., 2016. Lifestyles of nursing students from a Colombian public university. Investigation Education Enfermeria 36 (4), 94–103. https://doi.org/10.17533/udea.iee.v34n1a11.

- Sandalowski, M., 2000. Whatever happened to qualitative description? Research in Nursing & amp; Health 23 (4), 334–340. https://doi.org/10.1002/1098-240x (200008)23:4<334::aid-nur9>3.0.co;2-g.
- Smith, A.P., 2019. Student workload, wellbeing and academic attainment. In: Longo, L., Leva, M. (Eds.), Human Mental Workload: Models and Applications. H-WORKLOAD 2019, Communications in Computer and Information Science, vol. 1107. Springer, Cham.
- Snook, J., Oliver, M., 2015. Perceptions of wellness from adults with mobility impairments. J. Counsel. Dev. 93, 289–298. https://doi.org/10.1002/jcad.12027.
   Stoewen, D.L., 2015. Health and wellness. Can. Vet. J. 56 (9), 983–984.
- Streubert, H., Carpenter, D.R., 2011. Qualitative Research in Nursing: Advancing the Humanistic Imperative. Wolters Kluwer Health/Lippincott Williams & Wilkins.

- Turner, K., McCarthy, V.L., 2017. Stress and anxiety among nursing students: a review of intervention strategies in literature between 2009 and 2015. Nurse Educ. Pract. 22, 21–29. https://doi.org/10.1016/j.nepr.2016.11.002. Epub 2016 Nov 12.
- Van Lingen, J.M., Gradidge, D., Wannenburg, I., 2011. A cross-sectional exploration of the relationship between undergraduate nursing student wellness and academic outcomes at a South African higher education institution. Psychological Society of South Africa 41 (3), 396–408. https://doi.org/10.1177/008124631104100313.
- Watson, R., Rehman, S., Ali, P.A., 2017. Stressors affecting nursing students in Pakistan. Int. Nurs. Rev. 64, 536–543. https://doi.org/10.1111/inr.12392.
- World Health Organization, 2010. Global recommendation on physical activity for health. https://apps.who.int/iris/bitstream/handle/10665/44399/9789241599979 \_eng.pdf;jsessionid=58ED02B8BB32CE75379879E246247987?sequence=1. Accessed: 10 February 2020.
- Wu, L.F., Liao, Y.C., Yeh, D.C., 2012. Nursing student perceptions of spirituality and spiritual care. J. Nurs. Res. 20 (3), 219–227. https://doi.org/10.1097/ inr.0b013e318263d956.