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Mental Health Status of Undergraduate Nursing Students in Facing Professional Nursing Practices

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ABSTRACT
Nursing professional courses delivered in actual clinical learning environments primarily aim to provide direct access and create authentic interactions within the community. Furthermore, this program aims to develop critical thinking skills and apply previously acquired knowledge in the classroom. This shift in the academic process often becomes a new stressor among nursing students because it requires high adaptation skills in a relatively short period of time to gain professional abilities and become a registered nurse. This research is a quantitative study with a cross-sectional method that explores mental health status among 36 nursing students who are currently undergoing a clinical training period toward the professional nursing program at Udayana University. Self-Rating Questionnaire (SRQ 20) implemented by the Ministry of Health of the Republic of Indonesia to measure mental health status. Findings revealed that in the past 30 days, during the clinical training period, participants demonstrated physical, psychological, and social responses to stressors with common reactions appearing in the form of fatigue, anxiety, and difficulty in performing assigned roles. The majority of participants also experienced difficulty thinking clearly due to the effects of stress. Further statistical analysis confirmed the correlation between each dimension of mental health state (physical, psychological and social responses and the effects of stress) with gender ($p<0.05$). These findings imply the need for stress management education and possibly mentoring programs for nursing students, especially those pursuing clinical training period toward the professional nursing program. This program will help them develop better adaptability to new systems.

Keyword: Mental health, Nursing student, Professional

1. Introduction

Nurses are healthcare workers who are required to primary carry out their responsibilities guided by the principle of caring. Being a nurse sometimes could be burdensome. It can be very grueling and challenging. Thus, extensive groundwork is mandatory to build a firm basic nursing concepts comprehension that would support sufficient and comprehensive nursing care delivery. Further, Law Number 38 of 2014 regarding Nursing explained nursing as a sequence of interaction between nurses and their clients including their surroundings to fulfill their client's basic needs and manifest independence of self-care. Darling et al. (2021) then mentioned that the mission of nursing in the community is to principally help individuals, families, and groups in achieving optimum physical, mental, and social health. This situation portrays the reasonings of the need in directing serious and extensive educational courses to acquire competent and professional nurses.

Nursing students are not only required to pursue a bachelor of science in nursing. However, to elevate their understanding of nursing science, they are requested to experience professional hands-on learning in the clinical training period the professional nursing program. In these courses, students are exposed to direct interaction and multiple clinical cases in authentic clinical-community settings. Students would be loaded with miscellaneous academic pressures and assigned to earn a complete understanding of nursing care, both the basis theory retained in bachelor courses and related clinical procedures. These pressures coupled with

the transition of the system of learning, oftentimes put them in mentally draining situations (Sari Lombu & Setiawan, 2018). Adaptive coping mechanisms are mandatory to sufficiently adjust to these exhausting shifts.

The clinical training period in the professional nursing program to develop clinical skills, construct sufficient attitudes, introduce humankind values in healthcare, and achieve competency that meets the national standard requirements of a professional registered nurse. A systematic and comprehensive curriculum in this advanced course have been broadly established as a potential stressor for nursing students. A study discovered a phenomenon of excessive anxiety complaints among nursing students in their clinical training period that was demonstrated by the marked cortisol hormone elevation. Stressors would stimulate the hypothalamus to activate the sympathetic nervous system which would promote the release of ACTH and cortisol, thereby unleashing vasopressin (Christiyanty, Sulistyarini, & Sirait, 2021). Cortisol has been known for its various physiological effects that alter physical health and disrupt the daily routine.

The university student population in several studies reported undergoing higher levels of stress in their first year. Research by Jamilah & Tumanggor (2022) also stated that 55.3% of undergraduate students in Medan experienced academic stress. Of course, this will be even more difficult when students have to face and go through a professional stage that will entirely occur in the field of practice as something new for them. A study conducted by Adelia et al. (2023) also discovered similar findings. They underlined the highest stress level in the first year of the university, which gradually declined in the first two years. Surprisingly, the level of stress then increased higher than in the second year, which may be attributed to the lack of knowledge, higher academic responsibilities, patient care loads, and demanding clinical fields. Further, lack of confidence also serves as a factor that influences the occurrence of higher stress levels due to several difficulties encountered in this clinical training period in the professional nursing program.

Stress is a reaction toward challenging stimulations that need response, regulation, or adaptation physically, emotionally, mentally, or psychologically. Insecurity due to insufficient clinical skill, concerns or fears about the senior nurses or supervisors during the report sessions, numerous deadlines of school work, and environmental-related stress are prevalent sources of stress claimed by nursing students during the clinical training period. These stressors could eventually decrease their concentration, increase their academic pressures, and alter their mental health, causing insomnia, and even difficulty in recalling events (Prasetio & Rahman, 2019). Gradually, a marked decline in the academic performance could be clearly observed. Hidayah, Trisnayanti, & Rachmawati (2021) further described stress as internal states resulting from the physical (body), environment, and social situation that may be detrimental and could be cumbersome. The prevalence of students who suffer from stress in the nursing prelicensure period is usually higher than students from the other university courses. High academic demands to comprehend both the theories and practices, also the burdens to properly translate the theoretical basis into clinical works may serve as the major source of stress (Frendy, Denny, Jusuf, & Angelia, 2022). Chaabane et al. (2021) in their systematic review also documented a high level of stress among nursing students (6,799,2%). Thus, this study aimed to explore correlation between each dimension of the mental state of nursing students with gender during nursing profession program. These findings were expected to provide a solid foundation for organizing proper programs to help nursing students maintaining their mental wellness while also using their full potential to acquire professional abilities in the clinical training period.

2. Methods

2.1. Sample and design

This was a quantitative study using a cross-sectional method. A total sampling technique was employed to recruit an entire class consisting of 36 students registered in the first semester courses of the clinical training period in the professional nursing program at the University of Udayana as the participants.

2.2. Procedure

This research permit has been granted by the Bachelor of Nursing Science and Professional Nurse Study Program, Faculty of Medicine, University of Udayana. The research team initially reached the student class leader and briefly described the study focuses and objectives. All students subsequently acquired explanation regarding the study's purposes and requested to send an online-based informed consent form through the Google Form link provided to declare their voluntary participation. Following their participation consent, they were then invited to fill all question items in the questionnaire shared in the WhatsApp group according to their experience in the last 30 days of the prelicensure program. This research was approve by Ethical Committee, Faculty of Medicine, Udayana University with number 3041/UN14.2.2.VII.14/LT/2022.

2.3. Instruments

This study gathered the participant's demography characteristic of gender and mental status data using the Self Rating Questionnaire (SRQ 20). Twenty-question items in SRQ 20 broadly use to evaluate the mental health status of an individual. This questionnaire was initially developed by the World Health Organization and have been applied by the Ministry of Health of the Republic of Indonesia to measure mental health status with the value of sensitivity and specificity of 88% and 81%, respectively. No validity test was conducted in this study as it has been widely applied in international and national research settings. Each question is complemented by "yes" and "no" answer options with a total score of two and one, respectively. Collectively, six yes answers would suggest the tendency of mental illness.

2.4. Statistical analysis

The collected data were analyzed using SPSS version 26. Data were subsequently presented in the frequency distribution format to obtain the description of the demographic characteristics (gender) and mental health state (physical responses, psychological responses, social responses, and stress effects). The pearson correlation test was then conducted to investigate the correlation between these variables, with $p<0.05$ signified the correlations between variables.

3. Results

Table 1 shows that the majority of the participants were female (77.8%). Participants also stated the appearance of several physical, psychological, and social responses due to stress in the last 30 days. The most prevalent physical responses reported were the constant tiredness (66.7%) and easily tired (77.8%). Further, the dominant psychological responses documented were easily being frighted (55.6%), and feeling of nervous, anxious and tense (77.8%), and feeling unhappy (52.8%). Around six percent of participants reported the emergence of suicidal ideation. In terms of social responses, the majority of participants also stated the difficulty in ascending to the assigned roles (63.9%). They also experienced mental confusion or having trouble in thinking clearly (50%), difficulty or indecisiveness in making decisions (47.2%), and inability to complete tasks sufficiently (36.1%).

Table 2 shows that gender is related to crying responses more than usual in psychological responses. In the stress effect, related between difficulty thinking clearly with the incidence of headaches, tiredness and stomach upset in physical responses; difficulty thinking clearly is also related to easily being frighted, feeling nervous, loss of interest in life, feeling worthless in psychological responses; and related with difficulties in ascending to assigned role in social responses. Beside of that, difficulty making decisions in stress effect related to easy tired in physical responses; It also has a relationship with being easily frighted and loss of interest in life on psychological responses.

Table 1 The Description of respondent characteristic based on gender, physical responses, psychological responses, social responses and stress effects (n=36)

Variable		n	%
Gender	Female	28	77.8
	Male	8	22.2
Physical Responses			
Heaving headache	Yes	17	47.2
	No	19	52.8
Lack of appetite	Yes	17	47.2
	No	19	52.8
Good night sleep	Yes	11	30.6
	No	25	69.4
Handshaking	Yes	3	8.3
	No	33	91.7
Poor digestion	Yes	8	22.2
	No	28	77.8
Constant tiredness	Yes	24	66.7
	No	12	33.3
Stomach upset	Yes	15	41.7
	No	21	58.3
Easily tired	Yes	28	77.8
	No	8	22.2

Table 1 Continued

Variable		n	%
Easily being frighted	Yes	20	55.6
	No	16	44.4
Feeling nervous, tense, or worried	Yes	28	77.8
	No	8	22.2
Feeling unhappy	Yes	19	52.8
	No	17	47.2
Crying more than usual	Yes	12	33.3
	No	24	66.7
Loss of interest in life	Yes	13	36.1
	No	23	63.9
Feeling worthless	Yes	7	19.4
	No	29	80.6
Suicidal ideation	Yes	2	5.6
	No	34	94.4
Social Responses			
Not enjoying activities	Yes	12	33.3
	No	24	66.7
Difficulty in ascending to assigned roles	Yes	23	63.9
	No	13	36.1
Stress Effects			
Having trouble thinking clearly	Yes	18	50
	No	18	50
Difficulty with decision making	Yes	17	47.2
	No	19	52.8
The inability to complete work sufficiently	Yes	13	36.1
	No	23	63.9

Table 2 Correlation between physical responses, psychological responses, social responses and stress effects experienced by students facing the nursing proffesion (n=36)

Variable	Gender	Stress Effects (D)		
		Having trouble thinking clearly	**Difficulty with decision making**	**The inability to complete work sufficiently**
Gender		.437	.863	.368
Physical Responses				
Having headache	.546	.019*	.529	.563
Lack of appetite	.340	.331	.198	.443
Good night sleep	.709	.291	.401	.145
Hand shaking	.348	.560	.495	.262
Poor digestion	.468	.115	.863	.472
Constant tiredness	.784	.034*	.648	.340
Stomach upset	.292	.017*	.957	.777
Easily tired	.251	.015*	.026*	.929
Psychological Responses				
Easily being frighted	.256	.000*	.016*	.054
Feeling nervous, tenses, or worried	.251	.001*	.162	.472
Feeling unhappy	.863	.002	.506	.145
Crying more than usual	.023*	.166	.820	.635
Loss of interest in life	.082	.014*	.048*	.101
Feeling worthless	.664	.002*	.162	.689

Table 2 Continued

Variable	Gender	Stress Effects (D)		
		Having trouble thinking clearly	**Difficulty with decision making**	**The inability to complete work sufficiently**
Suicidal ideation	.345	1.000	.938	.287
Social Responses				
Not enjoying activities	.584	.166	.104	.051
Difficulty in ascending to assigned role	.368	.001*	.443	.233

* p <0.05

4. Discussion

The physical variable response of "poor digestion" was correlated to "poor sleep", "handshaking", "poor digestion", and "feeling unhappy". This correlation may be constructed by the combination of unhealthy lifestyles and diet patterns. The lifestyle factor has been associated with gastrointestinal organ dysfunctions and triggered several gastrointestinal illnesses (Indah & Dewi, 2019). Too spicy foods, alcoholic beverages, or caffeinated drinks could stimulate gastrin hormone secretion. Further, the stomach acid production would increase and irritate the stomach walls. This situation closely links to multiple gastrointestinal disorders, poor sleep quality, tremors, poor digestion or stomach upset, and unhappiness.

The response of "constant tiredness" was linked to "poor sleep", "poor digestion", "being easily frighted", "feeling nervous, tense, or worried", and "having trouble thinking clearly". Anxiety has been playing a substantial role in interfering daily life and contributing a substantial part in decreasing brain recalling function, leading to physical and mental exhaustion. Simultaneously, anxiety would increase the production of gastric acid. Prolonged high gastric acid production is very detrimental to the stomach mucosal barrier. The irritation caused by the acid can lead to serious gastrointestinal complications that appear as stomach ulcers, nausea, bloated feeling, or stomachache (Wijaya, Nur, & Sari, 2020).

The response of "poor digestion" was linked to "poor sleep", "stomach upset", "constant tiredness", "feeling unhappy", "difficulty in ascending to assigned role", and "having trouble in thinking clearly". Poor digestion or stomach upset could be associated with multiple causes, such as gastritis, dyspepsia, or GERD (Gastroesophageal Reflux Disease). These gastrointestinal issues are characterized by identical symptoms: nausea, vomiting, or difficulty in swallowing food. It is challenging to be content while enduring these uncomfortable symptoms. A sufficient rest period is inevitably required for proper recovery which would prevent students from participating in the prelicensure program (difficulty in ascending to assigned role).

Additionally, the statistical analysis discovered that the physical response of "being easily tired" was linked to the response of "having headache", "constant tiredness", "feeling anxious, tense, and worried", and "difficulty with decision making". Research by Sari & Susmiatin (2023) academic stress experienced by students has an impact on decreasing motivation, concentration, decreased interest, causing easy behavior for emotions and damaging. Excessive stress load can cause physical stress symptoms such as difficulty resting and feeling nervous, while psychological stress symptoms are feeling afraid, sad, and difficult to focus

The psychological response of "being easily frighted" was related to "constant tiredness", "easily tired", "feeling anxious, tense, and worried", "feeling unhappy", "crying more than usual", "loss of interest in life", "not enjoying activity", "having trouble in thinking clearly", and "difficulty with decision making". The feeling of fear is usually triggered by a certain emotional response or stimulation. It is commonly initiated by long-term anxiety and worry about an issue or unpleasant matter.

The feeling of nervous, tense, and worried was associated with the responses of "poor sleep", "constant tiredness", "easily tired", "being easily frighted", "not enjoying activity", "difficulty in ascending to assigned role", and "having trouble thinking clearly". Anxiety indicates the emotional and subjective experience of an individual toward unclear matters (Tantriati, 2023). Prasetio & Rahman (2019) defined anxiety as the psychological response to an unpleasant situation or reaction toward turmoil states. There are two major signs of anxiety: objective and subjective. The subjective signs originate from the internal emotions, not the realities, such as poor sleep quality, fatigue, fear, unhappiness, and inability to perform daily activities. The objective signs, on another hand, are the realities that could be confirmed by physical examination or direct observation, such as the pulse and blood pressure, inability to grasp information from others, etc.

The response of "feeling unhappy" was associated with the response of "having headache", "poor digestion", and "stomach upset". These emotions and memories are regulated inside the brain, especially in

the hypothalamus, the central region of the limbic system, that mainly constructed by the opiate receptors. The hypothalamus controls multiple body regulations, including emotions such as love or sadness. Individuals will feel satisfied when they are fulfilled and in control, such as feeling comforted by a cat's attention during a very bad day. The pleasant or content feeling is stimulated by the production of the happiness hormone, endorphin.

"The loss of interest in life" response was found to be closely associated with "loss of appetite", "being frighted", "feeling unhappy", "feeling worthless", "having trouble thinking clearly", and "difficulty with decision making". Cognitive impairments may appear as an inability to concentrate and difficulty with decision-making. Fatigue, lack of energy, psychomotor retardation, changes in sleep patterns, loss of appetite, and reduction of activity are physical signs of depression (Siregar, 2020). Additionally, statistical analysis also found a correlation between the psychological responses and loss of appetite.

The psychological response of "feeling worthless" is associated" with the "loss of interest in life" and "having trouble thinking clearly". The perceived impression of being less appreciated or invalidated by others due to constant mistrust could slowly evolve into a worthless feeling. The stress response of "suicidal ideation" was found to be correlated to "not enjoying activity" response. Multiple causalities of suicide have been reported, depending on the perspectives. World Health Organization also documented mental disorders, especially suicide cases, as the major cause of death in productive populations aged from 15-29 years. When an individual feels completely suffocated and consumed by their own depressing thoughts, everyday life seems exhausting and could eventually culminate in suicide attempts. Research by Sari & Susmiatin (2023) currently, many psychological anxiety conditions are experienced by students who will run nursing clinical practices in hospitals during the Covid-19 pandemic. This psychological condition encourages behavioral changes in D3 nursing students such as decreased interest, energy and activity to carry out nursing clinical practice. Anxiety triggers are related to interpersonal problems, feelings of frustration, fatigue, student needs that are not well identified and a picture of real situations in the field that describe the fluctuating situation of covid-19 cases.

Statistical analysis further confirmed the correlation between the social response of "not enjoying activity" with "having headache", "feeling nervous, tense, or worried", "feeling unhappy", "crying more than usual", and "suicidal ideation". A study from the *Jurnal Muara Pendidikan* mentioned several factors that affected the state of depression, anxiety, and stress (Y). The first factor reported was the difficulty in enjoying leisure time (X1). Further, they also identified the feeling of anxiety for apparently no reason (X2). The inability to feel joy or pleasure offered by the world is often referred to as anhedonia. Individuals diagnosed with anhedonia commonly feel numb or less interested in activities that they once loved. This mental disorder reduces the ability to enjoy pleasure (Hidayah et al., 2021). This condition frequently causes boredom and even depression. The typical symptoms that appear are headache, insomnia, and loss of appetite. Thus, anhedonia describes the bereavement of the ability to engage in joy and pleasure feelings in life experiences.

The statistical analysis also discovered the correlation between the response of "difficulty in ascending to the assigned role" and the "poor sleep", "constant tiredness", "poor digestion", "feeling unhappy", and "having trouble thinking clearly". The hopelessness state is broadly established as a major cause of difficulty in ascending to assigned roles. Factor of hopelessness into four dimensions: 1) environmental health: lack of privacy, personal property, and control over therapy; 2) Interpersonal relationship; abuse of power, abusive relationship; 3) Diseases associated with therapy regimens with the debilitation tendencies-potentials, and 4) Lifestyle/learned helplessness: repeated failures and dependencies (Agustina, Yuniarti, & Okhtiarini, 2021). The state of helplessness emerges as a psychological response to a crisis or very challenging situation that exceeds one's limit.

The variable of stress effects associated with the response of "having a headache", "constant tiredness", "poor digestion", "easily tired", "easily being frighted", "feeling nervous, tense, and worried", "feeling unhappy", "feeling worthless", and "difficulty in ascending to assigned roles". Lack of confidence and loss of self-esteem had been associated with anxiety. Excessive unrealistic anxiety and unstable emotions can develop into depression that would disrupt the ability to concentrate and think clearly (Adelia et al., 2023; Jamilah & Tumanggor, 2022). This situation frequently manifests in confusion, difficulty in digesting new information, and poor productivity.

The component "difficulty with decisions making" is associated with the responses of "easily tired", "being easily frighted", and "loss of interest in life". The link between these responses may be established by internal pressures from several emotional strains of sadness, unhappiness, loss of appetite, poor sleep, and inattentiveness. These altogether further would impede effective decision-making process. Thus, numerous factors, especially sadness, related with the response of "difficulty with decisions making". The inability to complete work sufficiently had no association with all responses, with a p-value of <0.05.

5. Conclusion

Most of respondent feel constant tiredness, easily tired as psychical response, feeling nervous, tense, or worried as psychological response, difficulty in ascending to assigned roles as social response. Most respondents having trouble thinking clearly when they feel stress. Stress management needed to give to nursing students, especially those pursuing clinical training period toward the professional nursing professional study programs through activities education and possibly mentoring programs. This program will help them develop better adaptability to new systems.

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