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ORIGINAL RESEARCH REPORTS

Influence of Perceived Clinical Supervision of Student Nurses on Their Burnout Experience

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Abstract

Purpose: The study aimed to investigate the influence of perceived clinical supervision of student nurses on their burnout experience.

Method: This study is a descriptive cross-sectional design. A total of 389 nursing students participated in the convenience sampling study. The study was conducted online from March 2021 to July 2021. The study used the clinical supervision Evaluation Questionnaire and Maslach Burnout Inventory–Student Survey adopted in China. A regression analysis was used to determine the predictors and influence of clinical supervision on the burnout experience among student nurses.

Results: Nursing students achieved a high mean on the clinical supervision purpose subscale. Student nurses had high cynicism, emotional exhaustion, and lower academic efficacy mean scores. Personal factors and process dimensions of clinical supervision influenced the burnout experience of nursing students.

Discussion: The study shows that clinical supervision decreases burnout based on cross-country comparisons.

Keywords: Burnout, Clinical supervision, Nursing student

1. Introduction

ursing education involves both academic and clinical exposure. Student nurses are exposed to different stressors during clinical exposure, which may indirectly or directly affect their mental status [1]. Stress is developed among nursing students because of their inability to adapt to internal and external sources of stimulus and apply appropriate coping mechanisms [2]. Stress causes absenteeism, decreased enthusiasm, loss of responsibility, and frustration among nursing students [3]. In the clinical setting, the stressors of nursing students are fear of the unknown and committing mistakes, adjustment to the hospital setting, and organizational management, collaborating the care of the patient with nurses and other health team members [4], inability to perform nursing skill caused by knowledge gap, unfamiliarity with the diverse condition [5], diagnoses, medical management and nursing intervention for the patient, the conflict in the application between the ideal to the actual practices in the clinical settings, and handling and managing a patient who is in the terminal stage [6].

Stress is part of the daily life of nursing students, motivating them to perform more effectively. However, stress is expected in nursing students' daily lives, which could alter their mental perception leading to burnout [1]. Burnout is when an individual feels disappointed and fatigued because of the inability to achieve goals [5]. A study from three universities in Brazil revealed that nursing students experience burnout due to academic requirements [7]. Similarly, according to Alimah and Swasti [5], 56.4 % of the 156 nursing students in Purwokerto experienced academic burnout.

The academic life of nursing students remarkably affects their mental health status [7]. The student's mental health status affects their performance, and some leave the program [8]. This phenomenon is

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2452-3011/© 2024 Association of Medical Education in the Eastern Mediterranean Region (AMEEMR). This is an open access article under the CC BY-NC license (http:// creativecommons.org/licenses/by-nc/4.0/). Sponsored by King Saud bin Abdulaziz University for Health Sciences. associated with a high incidence of anxiety and depression cases among student nurses [9,10]. Aside from academic requirements, clinical factors such as CS can cause burnout [9]. Nursing students experience stress caused by clinical exposure and increased academic requirement and workload [11], which can directly cause burnout.

CS is one of the methods practiced in nursing to enhance student nurses' knowledge, skill, and attitude. CS ensures nursing students improve their skills and nurse-patient interaction [12]. In the clinical area, student nurses are allowed to provide nursing care for the patient under the supervision of a clinical instructor. Among coaching and training student nurses under the supervision of the clinical instructor, student nurses complain of criticism, inadequate supervision, and inadequate time provided by the clinical instructor. Donough and Van der Heever [13] found that behavioral abuse, poor communication, distress, and psychological harm in the clinical area are caused by incompetent supervisors. Similarly, Vizcaya-Moreno et al. [14] showed that students who experience less supervision feel anxious during their work.

The association between CS and stress among undergraduate students is known. However, limited studies have focused on the influence of CS on the burnout experience among nursing students. Moreover, program or intervention to reduce the incidence and prevalence of burnout in academia is lacking [15]. Thus, this study is essential to understand the relationship between CS and burnout further. Accordingly, this study investigated the perceived CS and burnout experience among nursing students. It also determined the predictors and influence of perceived CS on the burnout experience among student nurses. The results will help develop and implement a preventive measure or program to alleviate the burnout experience of nursing students and enhance the performance of nursing students' CS.

1.1. Aims

This study aimed to determine student nurses' perceived CS and burnout experience. It also investigates the influence of perceived CS of student nurses on their burnout experience.

2. Methods

2.1. Design

The study utilized a descriptive cross-sectional design.

2.2. Setting and sample

This study was conducted in the Philippines and Indonesia. A total of 389 nursing students participated in the study, which involved convenience sampling. The study was conducted in universities where researcher collaborators are affiliated for convenience purposes. The inclusion criteria of the respondents are those Bachelor of Science of Nurse (BSN) students, who are enrolled in clinical-related learning subjects from 3rd year to 4th year, who have been assigned in the hospital and community, with one (1) year residency as a student in the school of nursing, and willing to participate in the study. Students in 1st and 2 nd years were excluded because they were not exposed to the clinical area. BSN students who are not enrolled in clinicalrelated learning subjects, transferees without one (1) year residency in nursing, and those who refused to participate in the study were excluded.

2.3. Instruments

The respondent demographic data (age, gender, year level, living condition, family type, and degree of clinical support) were collected to describe them. Two instruments were used in the study after permission was granted from the authors; CS Evaluation Questionnaire (CSEQ) and Maslach Burnout Inventory–Student Survey adopted in China.

The CSEQ includes 14 statements that measure the subscale "Purpose," "Process," and "Impact" of CS. Purpose evaluates if the CS addresses the needs and services the student needs in their clinical duty. Process measures if the students feel supported during CS. Impact measures the student's perception of CS creates change in their practice. The student nurses indicate their agreement with the statement on a five-point Likert scale, ranging from strongly agree (4) to strongly disagree (1), and the option no idea is 0. The internal consistency was measured using Cronbach's alpha with a coefficient of .86. The factor analysis of the three-factor structure of the scale accounted for a variance of 72.4 % [16].

The Maslach Burnout Inventory–Student Survey was used to measure the burnout experienced by student nurses [17]. This tool comprises 15 items that measure three subscales: emotional exhaustion with five items, cynicism with four items, and academic efficacy with six items. The emotional exhaustion dimension measures the fatigue experience of the person, the cynicism subscale measures the indifference or negative attitude of the person towards work, and the academic efficacy subscale measures the social and non-social accomplishment of the person. All items in the subscale were scored on a seven-point Likert scale ranging from 0 (never) to 6 (always). In the analysis of the scores, the students experience burnout if their score in the emotional exhaustion and cynicism subscale is high and their score on the academic efficacy dimension is low. The score in academic efficacy items was reverse-scored. The Cronbach coefficient alpha ranges from .60 to .69 for emotional exhaustion,.68 to .80 for cynicism between, and.65 and .77 for academic efficacy [17].

A panel of experts within the respective country evaluated the tool before data collection to ensure the applicability of the questionnaire's content in both countries. The panel expert did not revise or suggest any recommendations on the tool.

2.4. Data collection

The study involved an online survey from March 2021 to July 2021, and a private message was sent to the personal social media account of the student, such as Facebook, and the email address they use to communicate with their instructors. The private messages contain instructions for students on how to answer the questionnaire during their free time and if it does not cause much burden to them. The personal invitation contains a letter asking the student to participate in the study and the Google form link for the questionnaire. Students who agreed to participate will have to access the link. Afterward, the students were directed to the Google form that contained the questionnaire. The first page includes the study title and instructions to read the consent form properly. Then, the student clicked on the next navigation directing them to the consent form. A student who agreed with what was written on the consent form selected the "Yes" option, which will direct them to the next page containing the questionnaire. The written consent highlighted that their non-participation in the study would not affect their academic performance. Once the student finishes the questionnaire, the form is submitted via the "Submit" button. Then, the data were extracted and kept in a single file with a password on the researcher's laptop.

2.5. Data analysis

Upon extraction of the participant's response, data were tabulated and analyzed using SPSS Version 22.0.0.0. Mean, and standard deviation were calculated to understand student nurses' CS and burnout experience. Regression analysis was used to determine the predictors and influence of perceived CS on the burnout experience among student nurses.

2.6. Ethical consideration

The researchers secured approval from the Ethics Committee of the XXX. After obtaining approval, endorsement from the different Dean of the School of Nursing was secured. Consent was secured from the participants. Considering that the study was conducted online, no information besides their demographic profile, such as their IP address, was obtained. Participation in this research is voluntary. Students were allowed to withdraw and stop completing the questionnaire.

3. Results

3.1. Descriptive analyses of CS of student nurses and burnout experience

Table 1 presents the descriptive analyses of the perceived CS of student nurses and their burnout experience. Nursing students achieved a high mean on the CS purpose subscale and a low mean on the process subscale of CS. The findings also revealed that nursing students experience emotional exhaustion and academic efficacy burnout, as evidenced by the mean of 2.49 and 4.18.

3.2. Predictors of emotional exhaustion, cynicism, and academic efficacy

The three demographic variables and CS were subjected to three separate multiple-regression analyses to predict the burnout subscale. The three-regression analysis revealed positive results as follows: "emotional exhaustion" ($F_{18, 370} = 16.093$, p < .001), "cynicism" ($F_{18, 370} = 4.374$, p < .001), and "academic efficacy" ($F_{18, 370} = 16.768$, p < .001). The regression model also explains approximately 41.2 % ($R^2 = .439$, adjusted $R^2 = .412$), 13.5 %

Table 1. Descriptive analyses of the different variables (N = 389).

Variable	Mean	SD						
Perceived Clinical Supervision								
Purpose	3.52	.48						
Process	3.38	.51						
Impact	3.50	.45						
Burnout experience								
Emotional exhaustion	2.49	1.47						
Cynicism	1.58	.75						
Academic efficacy	4.18	1.22						

 $(R^2 = .175)$, adjusted $R^2 = .135)$, and 42.2 % $(R^2 = .449)$, adjusted $R^2 = .422)$ of the variance of "emotional exhaustion," "cynicism," and "academic efficacy" respectively.

Table 2 shows that being a student nurse in Indonesia was associated with low emotional exhaustion ($\beta = -1.84$, p < .001) than students nurse in the Philippines. Third-year student nurses were associated with higher emotional exhaustion $(\beta = -.47, p = .007)$ than other year levels. A point increase in mean score in the "degree of confidence of student nurses on their knowledge and skill in providing patient care" and "degree of response from the nursing administration on the problem or issues in the clinical duty" corresponds to .19 (p = .001) and .22 unit (p = 0.036) decrease on the mean score of emotional exhaustion, respectively. A point increase in the "degree of support of the Nursing School administration regarding clinical duty" and "degree of response from the staff nurses in the problem or issues in the clinical duty" resulted in a .21 (p = .016) and .21 unit (p = .0025) increase on the emotional exhaustion mean score of student nurses, respectively. Thus, students experience emotional exhaustion because of insufficient support from the Nursing School administration and staff nurses' response to the problem or issues in their clinical duty.

With other variables held constant, as revealed in Table 2, being a student nurse in Indonesia was associated with lower cynicism ($\beta = -.264$, p = .012) than those students in the Philippines. Similarly, the cynicism mean score of nursing students living with their parents was higher by .27 than student nurses living alone (p = .031). A point increase in the "age" and a mean score of "process" CS corresponds to a decreased mean score of cynicism by .055 (p=011) and .322 (p = 030), respectively. The finding shows that student nurses' age and the process subscale of CS cause low cynicism burnout than those younger students.

As presented in Table 2, being a student nurse from Indonesia was associated with higher academic efficacy ($\beta = 1.262$, p < .001) than students in the Philippines. Similarly, being a female nursing student was associated with higher academic efficacy ($\beta = .785$, p < .001) than male students. Being a 4th-year student nurse was associated with lower academic efficacy ($\beta = -.993$, p < .001) than other year levels. A point increase in the age of student nurses corresponds to a decrease of .131 (p < .001) in academic efficacy mean score. Therefore, student nurses from the Philippines, 3rd-year students, and older student nurses experience academic efficacy burnout.

4. Discussion

The study investigates the predictors and influence of CS as perceived by student nurses on the burnout experience. The study revealed that the purpose subscale of CS has a high mean score. This finding could be associated with the student nurses' interest in honing their knowledge and skills. Thus, their clinical instructors provide students with the information to enhance their knowledge. This notion confirms the studies' findings that CS is vital in shaping student nurses' knowledge, confidence, behavior, and skills [18,19]. Similarly, the study conducted by MacLaren [20] revealed that student nurses seemed confident with CS preceptors, teachers, and clinical instructors. The need and services needed by the student nurses during clinical management were provided by clinical instructors ensuring that the nursing student is exposed to the reality and culture of the nursing profession [14]. In the clinical area, the clinical instructor ensures that the student can link the theoretical knowledge to the actual clinical settings [18,19].

Student nurses achieved a low mean on the process subscale of the three CS subscales. CS is a process of learning for student nurses. However, the lack of proper CS affects the learning process of the student and their learning experience and causes students to develop negative behavior and poor communication with student nurses [13]. Student nurses in Scotland feel unconfident during their clinical duty because of inadequate supervision [21]. A study conducted in Spain revealed that student nurses felt anxious during their clinical exposure because the role of their clinical supervisor is not well-defined [14]. In Turkey, a study revealed that collaboration between affiliating hospitals and nursing schools should be done to develop a formal mentorship and supervision program [22].

The present study also revealed that nursing students have a higher mean on the emotional exhaustion subscale of burnout. Similarly, in Brazil, a high mean score of exhaustion burnout of 3.57 was observed [7]. Emotional exhaustion of nursing students could be associated with the nursing program caused of the amount of homework, peer and individual studies, and the ample time spent in preparation for their clinical duties [13,23]. As evident in the nursing curriculum, all professional nursing subjects have a corresponding Related Learning Experience, which allows and provide the student the opportunity to practice their theoretical/didactic knowledge in an actual healthcare setting to ensure that the graduate is equipped with knowledge and skills and be a globally competitive nurse [24].

Predictors	Emotional Exhaustion				Cynicism				Academic efficacy						
	β 5	SE-b	р	95 % CI		β	SE-b	SE-b p	95 % CI		β	SE-b	р	95 % CI	
				Lower	Upper				Lower	Upper				Lower	Upper
Country	-1.84	0.18	<.001***	-2.18	-1.49	264	.105	.012*	471	058	1.261	.157	<.001***	.952	1.571
Gender	0.17	0.17	.316	-0.16	0.49	030	.099	.761	225	.165	.785	.148	<.001***	.493	1.076
Year level	-0.47	0.17	.007**	-0.81	-0.13	129	.104	.215	334	.075	993	.156	<.001***	-1.300	687
Age	-0.05	0.04	.192	-0.12	0.02	055	.022	.011*	098	013	131	.032	<.001***	194	067
Living condition	-0.32	0.17	.055	-0.65	0.01	217	.100	.031*	414	020	229	.150	.128	524	.066
Family type	0.18	0.17	.279	-0.15	0.51	.089	.100	.376	108	.285	140	.150	.349	434	.154
Degree of confidence student nurses on their knowledge and skills in providing care to patient	-0.19	0.06	.001**	-0.31	-0.08	.013	.035	.711	056	.083	038	.053	.472	142	.066
Degree of confidence student nurses on the knowledge and skills of their clinical instructor	-0.21	0.07	.003**	-0.34	-0.07	015	.041	.726	096	.067	091	.062	.143	213	.031
Degree of support of the Nursing School administration regarding clinical duty	0.21	0.09	.016*	0.04	0.37	.044	.051	.388	056	.144	.036	.076	.641	114	.185
Degree of support of the Hospital administration regarding clin- ical duty	0.08	0.08	.322	-0.08	0.24	.017	.047	.715	076	.111	.033	.071	.638	106	.173
Degree of support of the Nursing staff in clinical duty	-0.15	0.10	.117	-0.34	0.04	022	.057	.697	135	.090	.066	.085	.440	102	.234
Degree of response from the nursing administration on the problem or issues in the clin- ical duty	-0.22	0.11	.036*	-0.43	-0.02	042	.064	.510	167	.083	179	.095	.061	366	.009
Degree of response from the hospital administration on the problem or issues in the clin- ical duty	0.14	0.12	.267	-0.10	0.37	.009	.072	.899	133	.152	.102	.108	.346	111	.316
Degree of response from your clinical instructor on the problem or issues in the clin- ical duty	-0.14	0.08	.093	-0.29	0.02	009	.048	.849	104	.085	053	.072	.460	195	.088
Degree of response from the staff nurses in the problem or issues in the clinical duty	0.21	0.10	.025*	0.03	0.40	110	.056	.053	221	.001	038	.085	.654	204	.128
Purpose	0.44	0.279	.117	-0.11	0.99	.227	.167	.174	101	.555	024	.250	.923	515	.466
Process	-0.45	0.248	.073	-0.93	0.04	322	.148	.030*	614	031	.024	.222	.915	412	.460
Impact	-0.31	0.320	.334	-0.94	0.32	135	.191	.480	511	.240	112	.286	.696	674	.450
R2 (Adjusted R2)	0.439 ((0.412)				0.175 (0.449 (0.422)			

Table 2. Predictors of emotional exhaustion, cynicism, and academic efficacy ($N = 389$).).
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Note. Positive mental health was the dependent variable. β is the unstandardized coefficients; SE-b is the Standard error. Beta is the standardized coefficients. *Significant at 0.05, **Significant at .01, ***Significant at 0.001

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Similarly, the Indonesian curriculum prepares students to provide care to different clients in the local setting rather than with international standards [25]. Thus, student nurses have more time in their theoretical and clinical courses, which causes exhaustion [23]. Moreover, the failure of the student to achieve their goal can lead to emotional exhaustion [7]. Moreover, lacking social activities can lead to emotional exhaustion, such as non-involvement in sports [26]. Sports enhance self-esteem and psychological well-being; thus, the non-involvement of student nurses in sports because of increasing academic requirements increases their risk of psychological problems such as burnout [7].

The study revealed that 3rd year-student nurses experienced emotional exhaustion and academic efficacy burnout. This finding confirms the results of the study of Weurlander et al. [3], in which student nurses experienced emotional challenges during the initial stage of their clinical training because it is the period of adjustment and adaptation caused by limited nursing knowledge and skills to provide solutions on the physio-psych-social problems of the patient. Nursing students' limited knowledge and skills affect their self-esteem and confidence, resulting in emotional exhaustion [10,27]. Moreover, the clinical training of nursing students starts immediately in their nursing program, where students are not yet prepared with the knowledge and skills to provide quality care for patients [28–30]. Furthermore, Alimah and Swasti [5] mentioned that students' burnout is associated with the discrepancy between the expectation of the student on their success and the developed skills from the available resources. Fourth-year nursing students' exposure in the clinical area is prolonged, thus increasing their confidence in providing nursing care to their patients, contributing to their low emotional exhaustion. This finding is similar to the survey conducted by Quina Galdino et al. [31], in which senior nursing students experience less stress when exposed to the clinical setting.

Furthermore, student nurses' emotional exhaustion is influenced by low responses from the nursing administration on the problem or issues in their clinical duty. The low response from the nursing administration on the problem or issues in the clinical duty creates an unsafe clinical environment for nursing students, making them feel insecure and resulting in confidence in caring for their patients [29,32–34]. Moreover, the low response from the nursing administration on the problem or issues in the clinical area can increase the emotional exhaustion of students, especially in the clinical area, nurses experience many challenges, such as the negative image of nursing, family disagreement, cultural challenge, gender desegregation, cross—gender interaction, and their perception and views about a stressful situation [33]. Inferiority is also experienced by students in the clinical setting [34], especially if they feel a lack of support from the nursing administration and nursing staff.

Generally, nursing students experience burnout. This finding could be associated with the higher stress level experienced by student nurses. The rigid and rigorous training of student nurses in the clinical setting mainly causes stress among student nurses, especially since committing a mistake in providing nursing care is not allowed [35]. The student nurses are permitted to provide or perform all individualized patient nursing care with the supervision of their clinical instructor [36]. Moreover, every error the nursing student commits has a corresponding sanction, such as extension duty, additional number of hours, or termination in the program if a grave mistake is committed (i.e., the error leads to the patient's death). Thus, students avoid committing mistakes to avoid additional burdens. Furthermore, Pascoe et al. [37] found that the academic demands of nursing students cause stress, leading to health problems such as the inability to sleep, inability to concentrate, and the use of substances. Furthermore, the decision-making of the nursing student under stress is affected and may affect the quality of the nursing care they provide for their patients [38] causing unhealthy stress-coping behaviors [39], and leading to burnout [7].

4.1. Limitations of the study

The study has some limitations. First, the samples are not equally distributed in terms of sample distribution. Thus, the study needs to be conducted in a broader setting and larger population to enhance the accuracy of the findings. Another limitation is the tool used to measure the burnout of the student because the questionnaire is only valid and reliable for the Chinese population. Moreover, the student's stress level caused by the pandemic was not assessed, which might affect the study's findings. Thus, the researchers recommend that for future similar studies, the researcher/s should assess the student's stress levels concerning recent stressful events.

5. Conclusions

The study provides information regarding the significance or influence of CS on the burnout experience of nursing. Promoting experiential and productive CS is achieved by multifactorial such as a relationship between the supervisee and supervisor, a committed clinical instructor, a student willing to learn, and an established CS program. Moreover, regardless of geographical location, nursing students experience the same type of burnout and have the same perception of CS.

The present study's findings imply the need to enhance CS policies and academic policies to relieve the stress of nursing students and decrease academic overload during their clinical training. The nursing institution and affiliating facilities of the nursing student should ensure that the nursing training is less stressful and more productive. The clinical instructor should also develop a positive perception of the student about their nursing training course to promote hardiness in nursing students and prevent or reduce their burnout experience.

Author's contributions

Made substantial contributions to conception and design: All authors. Acquisition of data: AM, CP. Analysis and interpretation of data: EMB. Involved in drafting the manuscript: All authors. Revising the manuscript critically for important intellectual content: All Authors. Given final approval of the version to be published: All Authors. Agreed to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved: All Authors.

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Ethical consideration

The University Baguio Institutional Research Committee (REC Protocol Number: 2019-092) ensured the ethical conduct of the study.

Conflict of interest

The authors have declared that no conflict of interests exists.

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