

Nurse Interns' Satisfaction with the Clinical Learning Environment: A Retrospective Cross Sectional Study

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ABSTRACT

Nurse interns (NIs) in nursing education require a welcoming clinical learning environment (CLE) in order to successfully integrate theory and practice. This might be achieved by looking at CLE from their perspective. The goal of this study was to determine how satisfied nursing interns were with their clinical learning setting. A retrospective cross-sectional approach was utilized in this study, with a purposeful sample of NIs from the Baccalaureate nursing program. Data was obtained from 110 individuals using a valid and reliable structured questionnaire, and analysis was performed using the SPSS statistical software for social sciences version 23. The level of significance was fixed at 0.05. To assess the satisfaction of Nurse Interns with the Clinical Learning Environment, the CLE was rated as satisfactory by 81.81 percent of those polled. The internship program was rated excellent or good by 91.5 percent of NIs. NIs were happy with the CLE's learning context (Mean = 59.97/75 with a standard variation of 13.36) as well as the information and skills obtained through the CLE (Mean = 24.43/30 with a standard deviation of 5.65). Using ANOVA, there was a significant difference between satisfaction with the learning setting and overall evaluation of the internship program (F-test). The CLE was well received by the majority of NIs, who evaluated their internship program as excellent or good. Awareness and evaluation of factors influencing nurse intern satisfaction are critical for good theory-to-practice integration. The study's data and results may be utilized to determine the elements influencing nurse interns' satisfaction with CLE and to propose suggestions for training clinical preceptors and nursing administration personnel to contribute to a pleasant clinical learning environment.

Keywords: Nurse Interns; learning context; skills; satisfaction

Introduction

Nursing internship programs that are successful give planned teaching and learning activities to prepare bachelor nurses who will be competent in executing nursing services. These experiences will prepare students to adapt to a real-world job setting.¹ Internship program play a critical role in preparing registered nurses with crucial professional skills and abilities.² To develop expert nurses, theoretical concepts in nursing education must be properly blended into clinical practice. An internship program that includes planned clinical rotations and first-hand

clinical experience closes the theory-practice gap^{3,4} and is critical for enhancing nursing students' self-confidence and preparing them to work in actual clinical settings.⁵

A pleasant clinical learning environment is required for the successful integration of theory into practice in nursing education (CLE). Nurses develop their professional abilities not just through a solid academic background, but also through organized CLE.⁶ CLE refers to learning that takes place in a real-world setting.⁷ According to researchers, CLE that promotes teaching and learning has a vital impact on students' achieving predicted learning outcomes (LO).^{8,9} Exposure to well-structured CLE helps professional nurses develop higher-level capabilities.^{10,11} To obtain clinical LO, a positive CLE should be developed by instilling variables that contribute to NI satisfaction.¹²

Several studies have found favourable correlations between student happiness and CLE elements that will aid in closing the gap between theory and practice. These include the area's pedagogical atmosphere⁹, leadership styles,^{9,13} the role of preceptors,^{8,13} the relationship with clinical instructors,¹⁴ and feedback from preceptors. In order to measure students' satisfaction with CLE, knowledge, interpersonal, communication, management, and psychomotor abilities must be addressed.¹ Furthermore, research has shown that providing educational programs improves clinical abilities.^{15,16} Furthermore, researchers discovered that improving communication between clinical staff and nurse interns^{2,4,7} providing orientation programs at the start of training,¹⁷ and encouraging nursing staff and mentors could all lead to positive CLE.¹⁸ Furthermore, Jamshidi et al. (2016) said that instructors should prioritize students' communication skills and psychological requirements in order to establish a happy learning environment.¹⁹

Researchers discovered, however, that unfavourable features of CLE might impede students' accomplishment of LO. According to research, the problems that nursing students have in CLE must be addressed in order to enhance their LO and generate competent nurses.¹² Furthermore, the study findings indicated that the primary problems with clinical education in nursing are clinical instructors' incompetence and the clinical environment's disagreeable mood.¹⁷ According to researchers, there is a need to investigate CLE from the perspective of students in order to comprehend the issues faced by nursing interns (NIs) and enhance clinical learning activities.^{20,21,22} Furthermore, Papathanassiou, Tsaras, and Sarafis (2014) proposed redesigning the educational system to bridge the gap between CLE expectations and reality for NIs. They highlighted that unpleasant learning experiences rapidly discourage NIs, and that finding strategies to assist and mentor these nurses helps with retention and satisfaction.²³

The research described above reveals correlations between contributing elements of positive CLE and nursing intern satisfaction. The purpose of this study is to assess NIs' satisfaction with these elements in order to find negative experiences that can be shared with nursing education and the management of each health department. A supporting CLE to develop expert nurses with the required graduate qualities is feasible by making the necessary legislative reforms. Graduate traits are the abilities, professional qualities, and attitudes that a university says its students should develop while studying there.²⁴ According to the graduate competence framework approved by the Prince Sultan Military College of Health Sciences (PSMCHS), Dhahran nursing department, graduating health care professionals should be competent to undertake specified professional tasks in order to contribute to addressing the country's health demands. They should be able to use related information, execute nursing tasks successfully, exhibit leadership, communication, and collaboration abilities, work professionally, and participate in research initiatives. To prepare NIs for these professional responsibilities, it is vital to investigate the elements that contribute to their satisfaction with CLE. Because of the aforementioned difficulties, researchers decided to investigate nursing interns' satisfaction with the clinical learning environment.

Objectives

1. To evaluate nurse interns' satisfaction with the clinical learning environment.
2. To evaluate nurse interns' satisfaction with the learning context of the clinical learning environment.
3. To evaluate interns' satisfaction with the knowledge, skills, and competence gained from the clinical learning environment.
4. To determine the difference between nurse interns' satisfaction with the clinical learning environment with the year of the internship program and the overall rating of the internship program.

Methods

A retrospective cross sectional approach enabled the researchers to describe about NIs' clinical learning environment satisfaction and its determinants as it is experienced and perceived by the students. This design was used to collect input from NIs in order to determine their level of satisfaction with the CLE. The city of Dhahran in the Eastern Province of Saudi Arabia was chosen to achieve the study's goal. This research was carried out in the Internship and Training Department of PSMCHS in Dhahran, Saudi Arabia. NIs had completed their internships at several government teaching hospitals around Saudi Arabia. NIs' level of achievement in internship learning outcomes is monitored by the nursing internship coordinator from the nursing department of the institution. The demographic included all NIs who graduated from PSMCHS, Dhahran and completed their internship at PSMCHS's Internship and Training Department between 2016 and 2019. We identified the NI reference population retroactively. Because it was a retrospective study, the researchers gathered the largest possible sample size. The study considered a purposive sample of all one hundred ten (n=110) NIs from the Internship and Training Department of PSMCHS who completed the self-designed questionnaire in paper forms.

Recruitment began following ethical approval from the Institutional Review Board of PSMCHS, Dhahran (IRB-2019-NUR-048). The Internship and Training Department of PSMCHS chose the participants when they sought the department for clearance after completing the internship program. The research included NIs who opted to complete the questionnaire. The students' involvement was entirely voluntary. When participants came in for authorization to participate in the study, they gave verbal agreement. Inclusion and exclusion criteria were applied to make the selection more representative of the intended demographic. To make sure that the people chosen were more representative of the group they were trying to reach, inclusion and exclusion criteria were used. Undergraduate nursing students who graduated from PSMCHS, Dhahran, Saudi Arabia were included in the study. NI's who had completed internship programmes in prominent Saudi hospitals only were included in the study.

After receiving permission from authorities for data processing, data were obtained from four cohorts of NIs who completed their internship program at 16 different hospitals across the country between January 2016 and December 2019. The involvement of NIs was entirely optional and anonymous. Furthermore, NI's were informed that their responses would be kept private. Questionnaires were given to all individuals who indicated an interest in taking part in

the study. Consent includes information about the study's purpose, an adequate explanation of what they are expected to do, assurance that there are no risks or harms in participating, a description of how participants' information will be kept confidential, and an estimate of how much time they will devote to the study. Other descriptions include information regarding the study's voluntary nature, as well as the fact that there would be no penalty or loss of benefits if they refuse to participate. Participants answered the questionnaire when they arrived at the department for approval after completing the internship program. After describing the research's aims and receiving verbal agreement from each participant to participate in the study, the concerned personnel handed over the English-language questionnaire. Staff members were assigned to collect completed surveys. These completed questionnaires were utilized by the researchers in this study. All surveys were kept anonymous by limiting access to just the Internship and Training Department's Head.

The study utilized a valid and reliable (Cronbach's $\alpha=0.91$) self-designed questionnaire (Students' Evaluation of Internship Experience scale) produced and used by the Internship and Training Department of PSMCHS. In fact, the first section of the questionnaire focused on sample characteristics such as gender, internship location, department, and year of internship. In the second section, we evaluated CLE satisfaction. It is made up of 21 separate pieces and has two different dimensions. The 1st 15 items evaluated satisfaction with the CLE learning situation, whereas items 16 to 21 evaluated knowledge, skills, and competency dimensions. These items were scored using a Likert scale with the following options: strongly disagree, agree, undecided, disagree, and severely disagree. Severe agreement received a score of 5, whilst strong dissent received a score of 1. The first question in the third section evaluated the overall evaluation of the internship program (excellent, good, average, below average, and terrible), whereas open-ended items II through VI collected comments and ideas concerning internships. Open-ended questions focused on how to enhance internship experiences, NI's advice to other students preparing for internships, topic areas that should be addressed more in order to prepare for internships, knowledge and skills gained, and other remarks. Researchers examined the content validity of the questionnaire for the purposes of the study. A panel of four experts was chosen to assess the content validity of the "student's evaluation of internship experience instrument." The panel consisted of three nursing professors and one biostatistician. Each panel list was given a brief explanation of the objectives and factors. A copy of the questionnaire was also sent. Experts were asked to rate each item of the questionnaire on a 5-point Likert (1=strongly disagree to 5=strongly agree) for adequacy, relevancy, correctness, clarity, and representativeness. The questionnaire was proposed by experts since each item is accurate, relevant, appropriate, and straightforward. To confirm the reliability of the questionnaire, 20 completed questionnaires from PSMCHS nursing graduates who finished their internship program in 2019 were chosen. The purpose of this study was to confirm the tool's dependability. Cronbach's alpha was calculated to be 0.91, indicating that the tool has an adequate level of internal consistency.

Data Analysis

Data analysis was carried out by using the statistical package for the social sciences version (SPSS) 23. The collected data were statistically analyzed based on the objectives by applying descriptive statistics such as frequency, percentage, mean and standard deviation and inferential statistics such as f-test. Demographic variables and variables to assess satisfaction with CLE are described descriptively in terms of frequency, percentage, mean and standard deviation. To determine the difference between satisfaction with CLE and years of internship and the overall rating of the internship program, a f-test was used. A P-value less than 0.05 was considered statistically significant. The confidence interval taken for mean was 95%. Missing

data were considered unanswered and were not included in the data analysis. There were 2 missing data points for Items 3, 6, and 7 respectively. For Items 9 and from 16 to 21, one data point was missing. For Part III-1 (overall rating of internship program), 16 respondents did not answer. Missing data were excluded from the statistical calculations.

Results

Characteristics of the sample

A purposive sample was used to recruit 110 NIs as study participants. The percentage distribution of participants according to the year of internship is shown in Figure 1. Among 110 participants, 2.7%, 43.6%, 30% and 23.6% of NIs did their internship in 2016, 2017, 2018 and 2019 respectively. All participants were females and were from the nursing department. Study participants completed their internship in 16 different hospitals across Saudi Arabia.

NI's satisfaction with CLE

The first research objective was to evaluate NIs' satisfaction with CLE. The data analysis shown in Table 1 revealed this satisfaction with the CLE. It is evident that overall, 81.8% of NIs are satisfied with the CLE, 7.3% are neutral and another 10.9% are dissatisfied. While analyzing the results, respondents- strongly agree and agree opinions were considered to agree with the statement and strongly disagree and disagree opinions were considered to disagree with the statement and were clustered together as one data point.

NI's satisfaction with the learning context of CLE and with knowledge, skills and competencies gained from CLE

The second research objective was to evaluate NI's satisfaction with the learning context of CLE. It is illustrated in Table 2 that NIs are satisfied with the learning context of CLE (Mean = 59.97/75 with a standard deviation of 13.36). The third research question was to evaluate NIs' satisfaction with the knowledge, skills, and competence gained from CLE. Table 2 shows that NIs are satisfied with the knowledge, skills, and competence gained from the CLE (Mean= 24.43/30 with a standard deviation of 5.65).

Table 1: Nurse Intern's Level of Satisfaction with the Clinical Learning Environment (n=110)

Items	Satisfied (n %)	Neutral (n %)	Dissatisfied (n %)
Part 1-Learning context of Clinical Learning Environment			
This experience gave me a realistic preview of my field of interest	90 (81.8%)	8 (7.3%)	12(10.9%)
I have a better understanding of theories, and skills after internship	94 (85.8%)	7(6.4%)	9(8.2%)
I was given adequate training in my area of Specialty	87 (80.6%)	7 (6.5%)	14 (13.0%)
I had regular meetings with my supervisor and received objective constructive, on-going feedback	72 (65.5%)	16 (14.5%)	22 (20%)
I was provided levels of responsibility consistent with my ability and skills	86 (78.2%)	13 (11.8%)	11 (10.0%)
My supervisor was available when I had questions/concerns	82 (75.9%)	11 (10.2%)	15 (13.9%)

The work I performed was challenging, motivating and stimulating	93 (86.1%)	6 (5.6%)	9 (8.3%)
I was treated on the same level as other employees	81(73.6%)	17 (15.5%)	12 (10.9%)
I had a good working relationship with my colleagues	96 (88.1%)	4 (3.7%)	9 (8.3%)
I met my learning objectives as indicated in internship program	88 (80.0%)	11(10.0%)	11 (10.0%)
I was given relevant work assignments	89 (80.9%)	9 (8.2%)	12 (10.9%)
I rotated through the designated department/ clinical areas	92 (83.6%)	9 (8.2%)	9 (8.2%)
My internship was related to my major and career goals	96 (87.3%)	5 (4.5%)	9 (8.2%)
I feel that I am better prepared to enter the world of work after this experience	92 (83.6%)	11 (10.0%)	7 (6.4%)
The internship environment was conducive to innovation and creation	84 (76.4%)	11 (10.0%)	15 (13.6%)
Part 2-Knowledge, skills and competencies gained from the Clinical Learning Environment			
Interpersonal/human relations skills	93 (84.5%)	7 (6.4%)	10 (9.1%)
Oral communication/presentation skills	90 (82.6%)	9 (8.3%)	10 (9.2%)
Problem solving abilities	92 (84.4%)	8 (7.3%)	9 (8.3%)
Critical thinking skills	96 (88.1%)	5 (4.6%)	8 (7.3%)
Writing and documentation skills	91 (83.5%)	7 (6.4%)	11 (10.1%)
Scientific Knowledge	91 (83.5%)	7 (6.4%)	11 (10.1%)
Overall satisfaction	90 (81.8%)	8 (7.3%)	12 (10.9%)

Table 2: Nurse Intern's Satisfaction Score from the Clinical Learning Environment

Level of satisfaction score	Mean	Standard deviation
Part 1 (Learning Context)	59.97	13.36
Part 2 (Knowledge, skills & competencies gained from CLE)	24.43	5.65

Overall rating of internship program

Figure 2 shows that 42.6% of nurse interns rated their internship program as excellent, 48.9% as good, 5.3% as average, and the remaining 3.2% as below average. A total of 91.5% of nurse interns rated their internship program as either excellent or good.

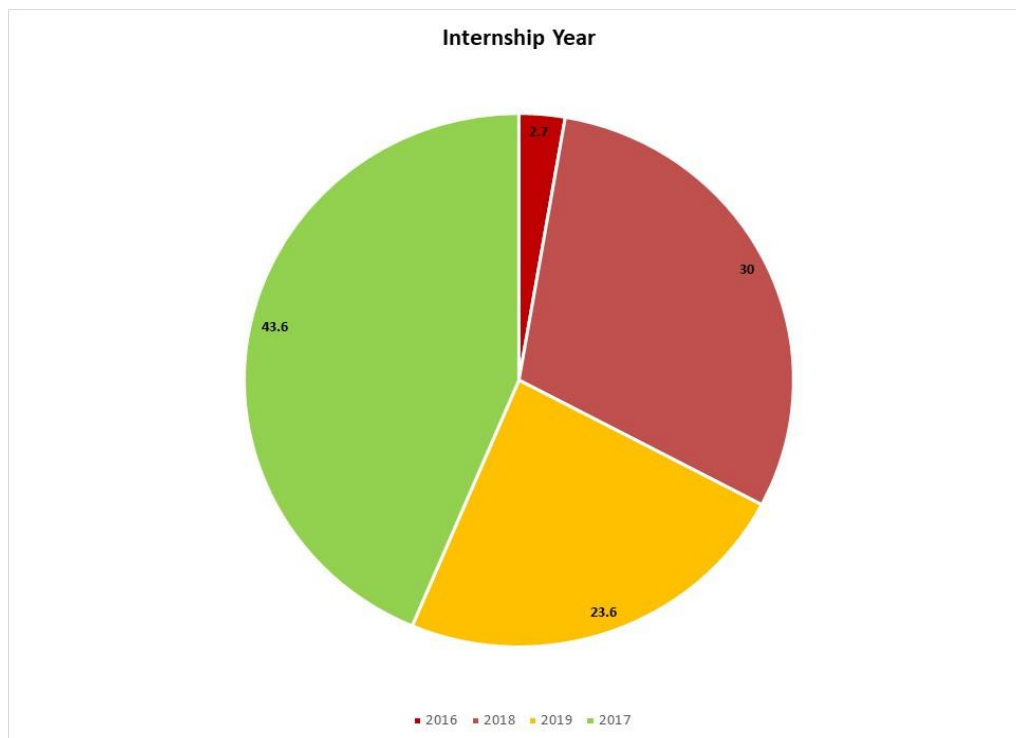


Figure 1: Percentage distribution of respondents by year of internship

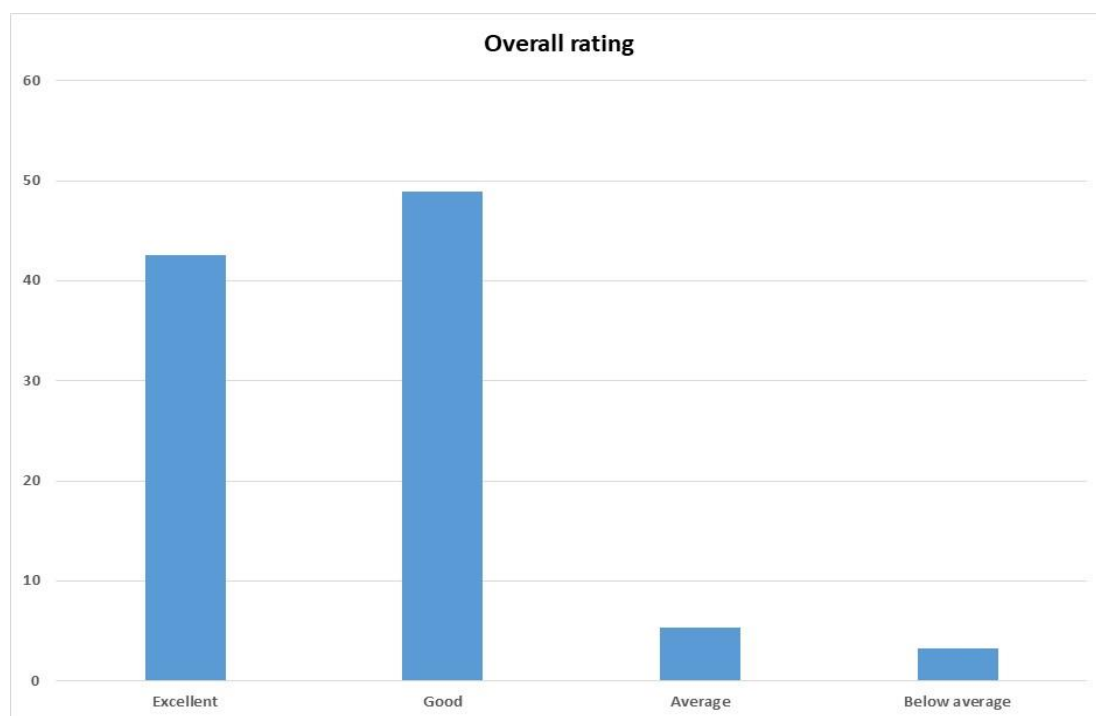


Figure 2: Overall rating of internship program

Analysis of comments and suggestions

Qualitative data analyzed from NIs disclosed the following comments and suggestions from open-ended questions. They narrated that conditions related to the internship experience could be improved by assigning them expert preceptors, conducting regular meetings with college personnel and discussing their concerns, providing opportunities to attend regular lectures and workshops, and improving the communication between colleges and hospitals. Participants suggested that future nurse interns be knowledgeable about their rights, focus on learning

related to their specialty more, be confident performing procedures, be punctual, and be aware of policies and procedures in each area. For the research question regarding subject area to be emphasized to prepare for internship, respondents have the opinion that every subject is important for nursing as intern. With respect to the variable- knowledge and skills developed, they had the opinion that they developed interpersonal skills, responsibility accountability, communication skills, leadership and managerial skills, critical thinking, decision-making, problem-solving, and psychomotor skills. Participants stated that they gained knowledge about disease conditions and nursing procedures and about documentation. To improve the internship program, participants suggested stopping abusing the interns by nursing staff.

Difference between NIs' satisfaction with CLE and year of the internship and the overall rating of the internship program

The fourth research objective was to determine the difference between NI's satisfaction with the CLE and the year of internship and the overall rating of the internship program. Table 3 reveals the difference between the year of internship and the overall rating of the internship program with satisfaction with CLE (learning context and knowledge and skills gained). There was a significant difference between the satisfaction with clinical learning context and the overall rating of the internship program ($p = .012 < 0.05$) by applying ANOVA (F-test). NIs' who rated the internship program as excellent and very good had higher satisfaction scores related to learning context than NIs who rated average and below average.

Table 3: Difference between Nurse Interns' Satisfaction with Clinical Learning Environment and Year of Internship and Overall Rating of Internship Program

Year of internship	Learning context of clinical learning environment		Knowledge, Skills & competencies gained from clinical learning environment	
	Mean	SD	Mean	SD
2016	57.000	7.000	24.333	2.516
2017	58.791	16.555	23.270	6.994
2018	59.545	10.347	24.333	4.665
2019	60.576	13.647	25.115	6.028
F (P)	0.120 (0.948)		0.708 (0.549)	
Overall Rating of Internship Program				
Excellent	64.525	17.116	26.475	6.409
Good	59.021	9.819	24.456	4.303
Average	53.600	7.503	21.200	3.989
Below Average	41.666	2.081	21.333	5.686
F (P)	3.845*(0.12*)		2.495(0.065)	

F, P: F and P values for ANOVA test

* statistically significant at $p \leq 0.05$

Discussion

This retrospective cross-sectional study explored NIs' satisfaction with the CLE among NIs from PSMCHS, Dhahran, Saudi Arabia. 110 respondents participated in the study. The objective of the study was to determine NIs' satisfaction with CLE. The study revealed respondents' satisfaction with the overall internship training program. In concurring with the findings of the study, Wambui & Githui (2019) showed that nurse interns are generally satisfied with the internship program. This finding is in agreement with several previous studies to obtain satisfaction among new nurses who participated in nursing internships, and concluded

that NIs estimated CLE positively.^{2,18} This study revealed that respondents are satisfied with the learning context of CLE. This means that there was availability of learning situations to support the acquisition of knowledge and skills gained. Other studies^{1,7} supported the present study findings and revealed that students are satisfied with the pedagogical atmosphere. The results of the present study showed that more than 91% of respondents are satisfied with the knowledge, skills, and competence gained from internships. Skills include communication, problem-solving, critical thinking, and documentation skills. This means that they could communicate with patients and families, interact and communicate with other health personnel for patient care. These findings align with prior research of Al Mahmoud et al. (2013). They found that interpersonal, communication and managerial skills recorded the highest mean score among the studied participants. Additionally, for the variable knowledge and skills developed, they commented that they developed interpersonal skills, responsibility accountability, communication skills, leadership and managerial skills, critical thinking, decision-making, problem-solving, and psychomotor skills.

Ninety-three percent of respondents believed that the work they performed was challenging, motivating and stimulating. This means that they could perform psychomotor skills efficiently. Interns were able to apply nursing procedures learned in the skills lab to real patients. In contrast, Al Mahmoud et al. (2013), revealed that knowledge and psychomotor skills had the lowest mean score in their study. Regarding feedback from staff, even though the majority of NIs were satisfied, 28% of respondents were either neutral or dissatisfied in this study. Staff should give timely feedback to correct NIs' mistakes. AboGad (2019) showed that efficient feedback strengthens their knowledge and skill. The overall rating of the internship program in this study showed that the majority of students rated the internship program as either excellent or good. No previous studies were performed to determine NIs' overall ratings of the program. The findings of this study suggest assigning NIs expert preceptors. Ngaiyaye et al. (2017) supported this by showing that expert preceptors create a positive learning experience. Alharbi & Alhosis (2019) also supported this by stating that administrators should assign NIs to qualified clinical preceptors. Participants suggested conducting regular meetings with NIs by college personnel. Similarly, Alharbi & Alhosis (2019) also raised an issue regarding scarcity in regular follow-up from students from their colleges. Respondents felt that providing opportunities for educational programs and workshops would improve internship programs. Keshk et al. (2018) supported the above statement by revealing that the implementation of an education program or workshop increases professionalism among NIs. Additionally, Ruzafa et al., (2016) also showed that an educational program could make positive changes in the knowledge, skills, and attitudes of undergraduate nursing students. In this study, respondents felt that NIs were abused by staff. In agreement with this, the findings of Alharbi & Alhosis (2019) proved that NIs conveyed exploitation from staff through improper delegation of tasks. In the present study, the year of internship was not related to the level of satisfaction with the CLE. In contrast, Wambui & Githui (2019) revealed that the year in which internship was completed was related to the level of satisfaction with the internship. This could be due to exposure to the same CLE during this period. The findings from this study as supported by Al Mahmoud et al. (2013), noticed that no relationship existed between nurse interns' demographic characteristics and their satisfaction regarding internship programs. This study revealed the relationship between satisfaction with the learning context of CLE and the overall rating of the internship program. NIs who rated internship programs as excellent and good were more satisfied with the pedagogical atmosphere of CLE. However, no other studies have revealed the relationship between satisfaction with CLE and the overall rating of the internship program. However, Tzeng (2003) proved that nurses' satisfaction with their own competencies affect their performance.

Implications for nursing practice

Considering the development of the nursing profession worldwide, there is a need to restructure the roles of all members involved in students' clinical learning so that adequate preparation can be made to meet educational objectives. Additionally, the findings support the need to encourage both hospital staff and college personnel to effectively integrate theory with practice and thus to reduce the gap between theory and the real world of practice. Educators can use the findings to understand all the variables that could predict the performance of students in CLE that lead to the achievement of learning objectives.

Nurse preceptors should provide regular feedback to NIs regarding their strengths and weaknesses. Furthermore, a joint effort between the college and hospital authorities with the help of clinical preceptors should be encouraged to ensure an established internship program with well-defined policies and procedures. Additionally, educational programs and workshops should be planned to encourage NIs' knowledge and skills. Ensure that nurses who serve as clinical preceptors are properly prepared for that responsibility. Offering preceptor training classes would be beneficial to create a positive learning environment.

Limitations

Since NIs spend only a short period in each specialty environment, it may affect the measurement of satisfaction when drawing inferences from this study. The time spent in each clinical area by NIs may be short to obtain adequate information regarding CLE. Furthermore, size of the sample was small which may make it difficult to generalize. The study was performed only in institution in Saudi Arabia. Additionally, of concern is the potential bias caused by those who refused to participate and those who refused to respond to some variables.

Future research

A longitudinal study will be very helpful for the generalizability of the result. Additionally, further research is needed on a larger sample size by selecting candidates from other nursing colleges in Saudi Arabia for the generalizability of the findings of the study. Furthermore, future research should be conducted to explore the satisfaction of NIs, nurse preceptors, and college teaching staff with internship programs as well as to identify challenges and difficulties of the program. Despite all these shortcomings, since a theoretical background regarding factors affecting NIs' satisfaction is not yet available, this study would be of value to the nursing profession. NIs are a future nursing workforce and nursing education is an investment for training and producing expert nurses.

Conclusion

In the context of the current study, PSMCHS nurse interns were satisfied with the CLE. This could be related to the learning context of hospitals and the knowledge, skills, and competencies they gained from the learning environment. The majority of respondents rated the internship program as excellent or good. Furthermore, the current study illustrated that internship experience could be improved by assigning interns with expert preceptors, conducting regular meetings with college personnel, and providing opportunities to attend regular lectures and workshops. The findings support the need to organize CLE and encourage preceptors to effectively integrate theoretical knowledge into clinical practice and thus reduce the gap between theory and practice. The study revealed that there was a significant difference between satisfaction with the clinical learning context and the overall rating of the internship program. NIs who rated the internship program as excellent and very good had high satisfaction scores related to the learning context, indicating that organizing the learning context in a better way produces satisfactory nurses. Further studies are recommended to identify other factors that impact NI satisfaction.

Conflict of interest

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