Original Article

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Issues in Clinical Learning Environment Faced by Female Nursing Students at Jamshoro, Pakistan

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ARTICLE INFO

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ABSTRACT

Hospital-based education provides a supportive environment for nursing students who accept challenges for their profession. Although nursing is primarily a skill-based profession, clinical training is an important component of the growing nursing field. This empowers nursing students to integrate theoretical information into their psychomotor abilities, which they may then use in patient care. **Objective:** To identify issues in the clinical learning environment faced by female nursing students at Jamshoro. **Methods:** A descriptive cross-sectional study was directed at the public sector Liaquat College of Nursing attached to Liaquat University Hospital in Jamshoro from November 2023 to April 2024. A convenience sampling technique was utilized, and the research tool was adopted with some modifications and expert consultations to collect the data. Nursing students enrolled in clinical practice for six months and performed data analysis using IBM SPSS version 25.0. **Results:** The mean age of the participants in this study was evaluated at 21.5 years, with a standard deviation of 0.664 years. According to our findings, 24.6% of participants assigned their duties to the pediatric ward. 82.4% of participants were overseen by a single teacher, 78.3% lacked personal protection equipment, and 72.5% reported a lack of cooperation between the College of Nursing and the hospital. **Conclusions:** It was concluded that most participants are dissatisfied with clinical education, thus, reducing the shortage of clinical faculty, providing personal protective equipment, and developing good coordination between nursing colleges and hospitals can reduce issues faced by nursing students in clinical settings, thereby improving patient care.

INTRODUCTION

The clinical learning environment (CLE) is an essential component of nursing education, allowing students to apply theoretical knowledge in real-world settings [1]. However, CLE refers to the space where learners develop their clinical skills, encompassing the physical surroundings, teaching staff, nurses, and other healthcare professionals [2]. Gender dynamics, cultural norms, and professional expectations can all provide distinct challenges for female students [3]. Undergraduate nursing students face several important issues in their clinical settings, which have an influence on their training to provide patient care [4]. Inadequate staffing in hospitals is one of the most persistent concerns that female nursing students face. [5]. A lack of resources, increases workloads, requiring nurses to hurry through patient care, compromising the quality of treatment offered. Nursing students confront a variety of job dangers, such as infectious illness exposure and physical assault from patients or visitors [6]. As a result, the CLE is more challenging and includes anxiety about unanticipated events, dealing with new equipment, staff and faculty impoliteness, a theory and practice gap, and a lack of confidence in communicating with healthcare workers and patients in clinical settings [7]. Moreover, the administrative burdens and communication breakdowns experienced by nursing students during clinical rotation reduce the quality of patient care [8]. Nursing students claim a lack of support from hospital management in terms of working conditions and professional growth [9]. However, many nurses report a lack of chances for

professional development, which might impede their growth and capacity to offer high-quality care and teaching-learning processes [10]. These challenges can affect the competencies and learning of nursing students, which eventually compromises the quality of patient care [11]. Thus, learning in a clinical setting presents difficulties in the integration of continuous healthcare delivery, the student-supervisor connection is widely accepted as critical to the learning experience and accomplishment of learning goals [12]. Students face a variety of problems during clinical rotations, which arise from both clinical settings and educational institutions. Moreover, nursing students frequently confront substantial issues in hospital settings, such as high patient-to-nurse ratios, insufficient supervision, and little practical experience, hence high workloads can cause stress and burnout, affecting both student learning and patient care [1]. However, nursing colleges encounter a variety of problems that impact the quality of education they deliver to students. Issues like as ineffective curriculum, a lack of faculty support, and insufficient resources might influence students' readiness for clinical practice [13]. Therefore, healthcare providers play an important part in nursing students' clinical learning experiences [14]. A major obstacle to nursing education is a lack of relevant learning opportunities in clinical environments. This involves insufficient exposure to a wide range of clinical events, as well as a lack of practical expertise [15]. The emotional demands of nursing can worsen stress and feelings of isolation, emphasizing the need for mental health assistance. Understanding these problems allows healthcare organizations and educators to develop ways to improve the clinical learning environment while fostering fairness and inclusion in nursing education. This study aimed to identify issues in the clinical learning environment faced by female nursing students at Jamshoro.

METHODS

A descriptive cross-sectional study was directed to determine the issues in the clinical learning environment faced by female nursing students at Liaquat College of Nursing Female Jamshoro, Pakistan. The target population consists of 69 undergraduate nursing students, 34 from the second year and 35 from the third year. There were 45 students in each batch that are 2nd year and 3rd year in total 90 students' population. The required sample size was 74, with a 95% confidence interval and 5% margin of error However, only 69 students voluntarily participated in the research. Calculator.net was used to calculate the sample size. The research tool was adopted with the permission of the author [16]. Some modifications were done with the experts' consultations. Moreover, the questionnaire was divided into two parts. The first section comprises demographic statistics, while the second section offers various clinical learning environment-related issues in the

form of different statements. To simplify the analysis, closed-ended questions were distributed among the enrolled participants, which contained 21 items. The questionnaire used in the study has been reviewed for content validity and pilot-tested on 10% of the population. (Cronbach's alpha coefficient = 0.78) was found to be significant, allowing for measurement of consistency. The study utilized a convenient sampling technique, with inclusion criteria limited to willing second- and third-year students while excluding those who did not consent or were absent during the study. The analysis was performed using SPSS version 25.0. In descriptive statistics, frequencies and percentages were calculated for categorical variables, while means and standard deviation were calculated for continuous variables., with a confidence level of 95% and statistical significance set at p<0.005, employing chi-squared tests for categorical variables. Each participant ensured privacy and confidentiality throughout the research process.

RESULTS

In total (n=69) nursing students had a mean age (in years) of 21.55, with a standard deviation of 0.664 years. Participants who completed the questionnaire aged 18 to 26 years were identified and were allocated to different wards based on a clinical rotation method for detecting clinical-related issues. The results are presented in a tabulated format, with descriptions provided below each table. The majority of participants were third-year students, followed by second-year students. Furthermore, huge numbers of participants were placed in clinical placement in the pediatric ward, followed by the medical ward, and then the surgical and endocrinology wards. Age, year of education, and clinical placement of participants were the study's quantitative variables, so their mean and standard deviation were calculated in table 1.

Table 1: Demographic Data Related to Age, Year of Education and Clinical Placement of Participants

Variables	Categories	Frequency (%)	Mean ± SD
Age in (Years)	18	1 (1.4)	21.5 ± 0.66
	20	15 (21.7)	
	21	18 (26.1)	
	22	20 (29)	
	23	11 (15.9)	
	24	3 (4.3)	
	26	1 (1.4)	
Year of Education	Second year	34 (49.3)	1.51 ± 0.504
	Third year	35 (50.7)	
Clinical Placement of Participants	Medical ward	16 (23.2)	4.57 ± 2.714
	Orthopedic ward	5 (7.2)	
	Surgical ward	7 (10.1)	
	Urology ward	5 (7.2)	
	Endocrinology	7 (10.1)	
	Operation Theater	3 (4.3)	

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Pediatrics	17 (24.6)
Gynaecology	5 (7.2)
Oncology	4 (5.8)

That is the gender and marital status. Frequencies and percentages were calculated for all the qualitative variables as shown in table 2. This study found all participants were female and unmarried. All the qualitative demographic variables are presented in table 2.

Table 2: Demographic Data Related to Gender and Marital Status

Variable	Categories	Frequency (%)
Gender	Female	69 (100)
Marital Status	Single	69 (100)

These variables were: (I) Hospital-related issues; and (II) Departmental- or institutional-related issues. (III) Healthcare provider's related issues; and (IV) Lack of learning opportunities faced by undergraduate female nursing students at CLE. Each of these categories is subdivided into different statements in the form of questions, which were asked of participants. The majority 82.4% of participants reported that many students were supervised by a single clinical instructor or (none) in a clinical setting leading to dissatisfaction with learning in clinical areas. Nearly 80% of participants stated a lack of proper PPE in clinical areas, which could have exposed students to infection. Therefore, most students did not participate in nursing procedures and performing skills, which hindered their skill development.

However, 72.5% of participants highlighted healthcare workers as a significant barrier to improved learning. The p-value was found to be statistically significant (p = 0.012). More than 71% of nursing students perceived a lack of collaboration from other medical students during clinical rotations as a difficulty in clinical practice. The p-value was determined to be statistically significant (p = 0.006). About

70% of respondents expressed feeling overwhelmed by written assignments, leading to anxiety, and time-consuming which impacts performing nursing procedures in clinical areas the p-value was found statistically significant (p = 0.001). Moreover, 69% of participants experienced fear of criticism from clinical teachers during practical sessions, which prevented them from seeking guidance in clinical settings and engaging in real-life medical practice. While 68.1% of respondents indicated a lack of clinical instructors or mentors to guide them in clinical settings which developed low confidence in performing clinical skills. It was found that 62.3% of respondents stated that clinical instructors infrequently visit the students in the clinical setting, this lack of interaction led to feelings of isolation in the clinical environment and a subsequent impact on the learning process, the p-value was found to be statistically significant (p = 0.058). While over 60% of respondents were inspired by healthcare workers for clinical learning, factors like time limitations, patient overload, shortage of clinical teachers and a disconnect between institutions hinder their ability to develop their skills. On the other hand, about 39.1% of participants stated that the p-value was found statistically significant (p = 0.001). Besides on above results, students seemed dissatisfied with their clinical learning environment because of various challenges found during this study and these issues became alarming for students' nurses. Moreover, all of the clinical learning environment issues were equally present in the mentioned population. The p-value was determined to evaluate the statistical significance of the data and identify factors influencing nursing students in their clinical learning experiences [17]. The frequency and percentage of each question for identifying alarming variables were discussed in table 3.

Table 3: Clinical Issues Faced by Female Nursing Students in Frequency and Percentage

Central Thought	Clinical Issues	Response		p-value
		Frequency (%) (YES)	Frequency (%) (NO)	2nd year/3rd year
Hospital-related issues Faced by undergraduate Female nursing students At clinical learning Environment (cle)	Adequate equipment available in your area	39 (56.5)	30 (43.5)	0.387
	The hospital environment was clean?	30 (43.5)	39 (43.5)	0.020
	Inadequate PPE exposed to infection in the clinical areas.	54 (78.3)	15 (21.7)	0.819
	Less clinical teachers or someone to guide	47 (68.1)	22 (31.9)	0.934
Departmental issues Faced by undergraduate Female nursing Students at cle.	College of Nursing and the hospital have less coordination.	50 (72.5)	19 (27.5)	0.012
	Inadequate teaching and skill training in the college to prepare us for clinical	37 (53.6)	32 (32.4)	0.281
	Lack of supervision from the instructors to contribute to increased learning	31 (44.9)	19 (55.1)	0.726
	Clinical teachers rarely visited students in the clinical area.	43 (62.3)	26 (37.7)	0.058
	A single instructor had to monitor far too many pupils.	57 (82.4)	12 (17.6)	0.185
	Students were overloaded with too many written assignments by the clinical teacher.	48 (69.6)	21 (30.4)	0.001
	The hospital staff did not provide accurate information about the ward	34 (49.3)	35 (40.7)	0.398
	Inappropriate behaviour by doctors and nurses toward nursing students in clinical settings made them lose confidence.	29 (42)	40 (58)	0.070

Healthcare providers Related issues faced By undergraduate Female nursing Students at cle.	Nursing staffs did not supervise undergraduate Female nursing students comfortably at the clinical area.	33 (47.8)	36 (52.2)	0.543
	Hospital staff discouraged you from seeking guidance from them in clinical duration.	27 (39.1)	42 (60.9)	0.001
	The students were assigned inappropriate and heavy workload by the hospital staff.	23 (33.3)	46 (46.7)	0.733
Lack of learning Opportunities at cle Faced by undergraduate Female nursing Students.	Felt the anxiety to perform the wrong procedure.	48 (69.6)	21 (30.4)	0.219
	Lack of opportunities to practice or not allowed taking part in practice according to objectives.	34 (49.3)	35 (50.7)	0.398
	Non non-supportive environment due to many patients in the clinical areas	38 (55.1)	31 (44.9)	0.894
	There was a lack of cooperation from other students in the clinical area.	49 (71.0)	20 (29)	0.006
	The students were afraid of criticism by clinical teachers.	48 (69.6)	21 (30.4)	0.165
	Lack of guidelines for nursing practice or uneasiness in the working climate.	39 (56.5)	30 (43.5)	0.066

*Significant with a p-value of less than < 0.05

DISCUSSION

According to the current study's findings, the majority of students identified the presence of issues in clinical settings, indicating an overall feeling of dissatisfaction. Clinical experiences vary depending on organizational management, supervisory interactions, and students' expectations. According to previous research, second-year nursing students had the most clinical problems as compared to third and final years, due to initial days in the hospital and inadequate clinical exposure of patients, resulting in lower satisfaction [18]. Moreover, 78.3% of participants agreed they face a shortage in hospital work facilities which it makes difficult for student nurses to learn, Similarly, a study revealed that a shortage of material resources contributed to severe issues in nursing education, impeding nursing students' learning [19]. Thus, nursing students' confidence and competence would be lowered, which is critical for their professional growth. While 68% of participants in this study stated that a lack of clinical teachers in the clinical area leads to learning difficulties in clinical settings, this was supported by the shortage of clinical instructors and healthcare workers in clinical settings is producing major issues among nursing students, specifically fear and incompetency in female nursing students [20]. Approximately 70% of participants reported concern about their anxiety about conducting procedures and their fear of being criticized by healthcare staff while attending the procedure. This study's findings are similar to those reported that nursing students in clinical settings are afraid of making mistakes, which might hurt patients [21]. Similarly observed that nursing students' lack of self-confidence inhibits the practical learning process [22]. While 60% of participants stated that there was insufficient teaching and training in clinical settings and that clinical instructors seldom visited students in the clinical areas, that negative impact on nursing students' interest in their clinical learning. The findings of this study were similar and revealed that registered nurses have challenges in educating nursing students due to shortages, heavy workloads, and a lack of motivation in teaching [23].

Over 72% of nursing participants in this study highlighted a lack of cooperation between the college of nursing and hospitals in which nursing students are poorly placed in clinical areas, resulting in learning difficulties in contrast proposed that clinical education should carefully arrange the number of nursing students whose rotations are as well-planned as they acquire an enthusiasm in learning [24]. Furthermore, 82% of participants reported that the majority of students were supervised by a single instructor in clinical settings, which had a detrimental influence on student learning. A good clinical teacher is ready to make clinical learning pleasurable, encourage and engage students in learning, provide students with learning opportunities, and make the clinical atmosphere attractive [25]. In this study, 70% of participants reported inadequate PPE exposure to infection in the clinical areas. Further, all healthcare workers must utilize personal protection equipment (PPE) effectively when treating patients in critical care areas [26, 27] Another study found that a lack of PPE in clinical settings contributes to the spread of illness in the clinical learning environment, leading to a loss of motivation for learning among students. Another study indicated that female nursing students encounter unique challenges in the clinical learning setting compared to their male students [28]. Therefore, gender has a substantial impact on students' perspectives and clinical practice experiences. Female students frequently encounter gender prejudice, stereotyping, and labelling, which can influence their learning experiences and relationships with patients. Extensive study is needed, particularly interventional to have a better awareness of the underlying issues in the clinical learning setting. This would contribute to improving the existing situation and producing trained, qualified, and professional nurses [29].

CONCLUSIONS

This study concluded that undergraduate nursing students expressed dissatisfaction with clinical education, which makes nursing students disappointed in the clinical

learning environment. Nursing students encounter numerous challenges that affect their education and clinical practice. Addressing hospital-related issues, enhancing nursing institute curricula, fostering collaboration with healthcare providers, and improving clinical learning opportunities are crucial steps in preparing competent nursing professionals. Future interventions should focus on improving supervision, safety concerns, better coordination, and collaboration between the nursing institute and the hospital. If the necessary steps are not taken, the likelihood of training and producing nurses who are highly skilled, knowledgeable, and professional may decrease.

Authors Contribution

Conceptualization: IAC
Methodology: IAC, HBC, SA[1]
Formal analysis: IAC, ZA, SA[2]
Writing review and editing: JK, IAC, HBC

All authors have read and agreed to the published version of the manuscript.

Conflicts of Interest

The authors declare no conflict of interest.

Source of Funding

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