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ASSESSMENT OF THE EFFECTIVENESS OF CLINICAL ROTATIONS IN NURSING STUDENT'S CLINICAL COMPETENCE, A CROSS-SECTIONAL STUDY AT JAMSHORO PAKISTAN

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ABSTRACT

Background: Clinical competence is essential for ensuring safe and effective nursing care. Clinical rotations provide nursing students with real-world exposure to healthcare environments, where they can apply theoretical knowledge, practices clinical skills, develop professional confidence. This experimental learning is important in preparing students for the demands of clinical practice.
Objective: The primary aim of this study was to assess the efficacy of clinical rotations toward enhancing the clinical competence of nursing students in Jamshoro, Pakistan.
Methodology: Descriptive cross-sectional study was conducted among 165 BSN students enrolled in two nursing colleges. Data were collected using structured questionnaire on Likert scale, measuring communication skill, critical thinking skill, decision-making skill, and practical patient care skill of the students. The sampling technique used was non-probability convenience sampling. Data are analyzed using SPSS 26.0 and Microsoft Excel.
Results: The outcome indicated that clinical rotations reinforced clinical competence significantly in several

aspects. Approximately 75.7% of the students indicated increased confidence in communicating with patients and families, and 71.5% used evidence in clinical decision-making. Moreover, 69.7% indicated feeling comfortable co-coordinating care with inter-disciplinary teams. Approximately 65% of the students reported an overall competent level in the core clinical domain.

Conclusion: Clinical rotations are effective in developing clinical competence among nursing students. Though they enhance communication, decision-making and care confidence, areas such as documentation skills and ethical decisions require additional educational intervention.

INTRODUCTION:

One of the most important part of nursing education is clinical rotations, which provide a chance for nursing students to put their theoretical knowledge in practical situations (Woods et al., 2023). Clinical rotations provide students with invaluable hand-on experience that helps them prepare for the realities of nursing practice (Madera 2023). Nursing students can get the knowledge, abilities, and attitudes necessary to deliver nursing care through a combination of theoretical and practical learning experience (Zhang et al., 2022). According to Smith et al. (2023) found that students who participated in organized clinical rotations showed improved communication and patient evaluation proficiency. Likewise, a long-term study conducted by Johnson et al. (2022), which emphasized how clinical rotations help to develop professional flexibility and confidence. A clinical rotation is a fascinating opportunity for nursing students to demonstrate their learning in a hospital setting and grab their interest in clinical practice. An essential part of nursing education is real-world involvement in clinical settings. (Perng et al., 2020); Lee et al., 2018). The structure, length, resources, and overall healthcare system environment of clinical rotations can differ depending on where they are conducted. Clinical rotations involve practical experiences under supervision in a range of healthcare environments (Awad et al., 2019). Rotations can differ in terms of structure, length, and order, though. For example, certain regions may have longer or more frequent rotations, but others may offer a broader selection of specialty rotations (Awad et al., 2019). The availability and quality of resources and facilities during clinical rotations can differ by region (Awad et al., 2019).

Access to current medical equipment, simulation labs, standardized patient programs, and inter professional learning opportunities may vary institutes to institutes (Awad et al., 2019). Nursing competence as the capacity to carry out a task with desired results, describing the notion of competence and its use in the nursing sector (Hailu et al., 2021). To be clinically competent, a nurse must constantly acquire new information, values, and attitudes, as well as critical thinking abilities that foster creativity and innovation in nursing practice (Nabizadeh-Gharghozar et al., 2021).Competence and qualification in cognitive and psycho-physical domains, clinical skills, critical thinking, decision-making, and the capacity to improve learning via clinical experience and academic knowledge are all components of clinical nursing competency, and that eventually leads to standards and safe treatment (Rahmati Sharghi et al., 2015);(Beiranvand et al., 2021).The process of being professionally competent in nursing starts with nursing school and formal educational opportunities, and it continues with continuing education programs upon

entering the workforce (Rahmati Sharghi et al., 2015);(Beiranvand et al., 2021). The educational program of nursing training prepares students for the development of clinical skills.By addressing the strategic aspects that reflect students' success in the clinical setting; clinical assessment assists students in achieving their objectives and developing the skills necessary to create a thorough evaluation system (Esmaeili & Esmaeili, 2021). The clinical competence required to deliver safe and efficient patient care must be developed through clinical rotations. (Haddeland et al., 2018). Critical thinking, decision-making, communication, and practical patient care are all components of clinical competence (Scully, 2022). More and more quantitative studies have looked at how clinical rotations affect nursing students' skill development and preparedness for the workforce (Esmaeili & Esmaeili, 2021). Clinical education assesses students' performance for clinical reasons to establish quantifiable changes in their ability to deliver clinical care. When nursing students achieve the required level of clinical abilities, which may be determined only by evaluating clinical performance, they can graduate with high-quality performance. Information about the student's performance may be obtained from this, and it can be utilized for student promotion, evaluation, and even scheduling decisions (Esmaeili & Esmaeili, 2021). Clinical rotations have been shown to have many advantages in terms of perceived preparedness for inter-professional collaboration and systems thinking. Student comprehension of the larger healthcare system, including how various elements interact and affect patient care, has been proven to improve due to clinical rotations (Yaas et al., 2023). To perceive healthcare delivery from a system-thinking perspective, students who are exposed to a variety of clinical setting and patient demographics have a broader perspective. This involves acknowlwdging the impact the healthcare policy, resource allocations, patients' safety, and social determinants of health have on patient outcomes (Mallek et al., 2020); (Noor et al., 2020). Nursing students have the opportunity to work with healthcare experts from a variety of specialties during clinical rotations (Abdullahi et al., 2022). Nursing students gain skills and knowledge through hands-on interactions with patients and their environment (Abdullahi et al., 2022). They also struggle with issues including poor communication skills, a lack of confidence, an inferiority complex, and fear of making a mistake (Abdullahi et al., 2022).

To evaluate nursing education and training in the public sector, a survey was carried out in 42 nursing schools in Punjab. The study found that common issues in government nursing schools that could have a detrimental impact on students' learning experiences included a lack of funding, a lack of qualified faculty, inadequate clinical instruction, malfunctioning skills labs, and inappropriate student clinical placements. (Rana et al., 2024).The usefulness of clinical rotations in improving clinical competency is supported by a large number of quantitative research studies.

A research study was conducted by Thompson et al. (2021) in which they used the pre and posttest methodology to measure the students' competency level and also notice the clinical practice. A resemble study was conducted by William et al.s' 2023, which show long term benefits of clinical practice into the nursing education. The majority of the mentioned studies focused on specific procedural and clinical abilities rather than competencies as learning objectives. Our goal is to ascertain how successfully the workplace serves as a setting for learning and competency development. We focused on practical learning in the study since clinical rotations are the most prevalent form of occupational learning in undergraduate nursing programs. Our study is based on the idea that effective workplace learning requires adequate and suitable supervision, feedback, and assessment. Clinical placement evaluations for nursing students are apparently not being

addressed in Sindh, Pakistan. This phenomenon affects the choice of clinicians to be part of nursing education and restricts effective clinical learning.

Purpose statement: This study aims to assess the effectiveness of clinical rotations in nursing students' clinical competence.

Research Objectives:

1. To evaluate how clinical rotations affect nursing students' clinical competency.
2. To determine which essential nursing skills are improved by clinical rotations.
3. To investigate how nursing students view clinical rotations' efficacy.

LITERATURE REVIEW:

A fundamental part of nursing education is the clinical rotation; a change from a theoretical understanding of knowledge to applied knowledge which allows the development of clinical competence, critical thinking, and collaborative inter-professional practice (Yaas et al., 2023). A productive clinical learning environment promotes academic motivation, decision making and skill development. Structured placements, faculty support, and well-equipped facilities play vital roles in competency attainment. While conductive environments correlate positively with academic motivation, clinical decision-making remains unaffected (Aktaş & Karabulut, 2016). A study found that clinical rotations moderately influence competency. Students demonstrated strong ethical adherence but had deficiencies in patient assessment and care planning. While professionalism improved, challenges remained in advances nursing actions and decision-making. Dissatisfaction arose from poor evaluations, active learning, and enhanced mentorship can improve outcomes (Esmaeili & Esmaeili, 2021).

Despite their benefits, clinical rotations face challenges such as inadequate supervision, resources constraints and weak hospital-school collaboration. Structured placements and strong mentorship positively impact competency. Addressing faculty shortages, improving preceptor training, and fostering institutional collaboration can strengthen clinical education and better prepare students for professional practice (Casey & Fink, 2024).Clinical competence is an important expectation for nursing students; yet, many students have obstacles to their education and learning, such as inadequate education and lack of supports, hindering their preparedness. Clinical skills are also measured by the quality of the learning experience, preceptor availability, assessment strategies, faculty engagement, and student confidence. The levels of clinical skill of nursing students range worldwide; research shows levels of competency varies in relation to different countries and geographical areas. A number of published studies conducted world-wide highlight newly graduated nurses demonstrate low levels of clinical competence during their transition (Worksneh et al., 2023). As an example, a study in ten European countries reported competence levels were between 50 and 60.1% (Workneh et al., 2024). A study in Ethiopia published 19.2% of nursing student's demonstrated clinical competence, and the comparative studies from Finland and Indonesia stressed the importance of structured clinical placements in terms of transitions to practice readiness. They also stressed that improvements to preceptor ship programs, structured assessment expectations, and supporting learning environments would enhance clinical competence and patient care outcomes (Hailu et al., 2021). A study conducted in Finland shows that 67.7% of nursing students demonstrated clinical competency. (Workneh et al., 2024) An investigation in Iran found that clinical competence and performance were evaluated by interviewing approximately 220 nurses. The mean age of participants was 31.15 years, with older nurses (age>33) exhibiting greater competence. Additionally, a larger proportion (80%) of female nurses were found to perform better than male nurses, and a larger proportion (74%) of married nurses were found to perform better than

unmarried nurse (Eshraghi Arani et al., 2023). The study gauged the perceived clinical competence of 110 final-year B. Sc. Nursing students in Chennai. The results demonstrated that 92.7% were highly competent, and 7.3% were moderately competent. In some areas, 77.3% in Emergency Nursing, 81.8% in Perioperative Nursing, 89.1% in Injection Administration, and 63.6% in Communication Skills. Students felt less competent interfacing with advanced medical equipment and legal processes.(Manojkumar M. et al., 2021).

The study assessed the clinical practice competency of graduating nursing students in universities located in the Amhara region, Ethiopia. The results reported that only 33.6% of the students were clinically competent, with slight variations among universities. Some systematic factors had a statistical significance with respect to competency levels. Orientation on clinical practice objectives made the students 2.39 times more likely to be competent, while those with sufficient mentoring time spent by instructors were 2.25 times more likely to be competent. Supervision given during procedures increased the competency by 2.66 times, and students assessed using checklists had better competency by 2.66 times. Furthermore, comments from the clinical staff on the tasks performed by the students made them 5.86 times more competent. In conclusion, it was highlighted by the study that not less than half of the graduating nursing students are clinically incompetent, requiring better supervision, structured assessments, and practical performance opportunities. (Getie, 2018)

A study conducted in Khyber Pukhtankhwa, Pakistan that revealed the clinical competence of nursing students was moderate, obtaining an overall mean score of 60.0% (±8.9%). Higher levels of academic achievement were strongly associated with increased overall competence. Specifically, high achievers (29.2%) displayed the most skills, while moderate achievers (60%) and low achievers (10.8%) were found to display some but insufficient skills. Moreover, clinical exposure was also statistically significant, as students with higher than six months of training performed better than those with one to two months. However, age, semester, gender, and college type had no significant effects ($P > 0.05$). The results of this study reaffirm that positive academic results and severe deficiency in clinical exposure negatively impact nursing students' skills and competency. (That et al., 2024.) Research underscores the positive impact of clinical rotations on nursing students' competence. A study by Al-Daken et al. (2024) found that 86.5% of students viewed clinical practice positively, recognizing its role in skill execution. Communication skills improved significantly, with 91.6% of students citing enhanced staff interactions. Furthermore, 94.8% reported putting extra effort into clinical studies. However, challenges remained, as 63.7% experienced verbal reprimands from preceptors, and 66.5% desired more hands-on experience. Addressing these concerns could enhance clinical training effectiveness (Al-Daken et al., 2024). There are some barriers that impact students' clinical learning experiences. A recent study conducted in Jamshoro Pakistan, identified that 68.1% of female nursing students did not have sufficient mentorship and reported having less confidence in clinical skill development. Also, an overwhelming number of students (82.4%) reported only being supervised by one instructor which contributed to their dissatisfaction.

A lack of personal protective equipment (78.3%) exposed students to infection risks, while inadequate collaboration between nursing schools and hospitals resulted in suboptimal clinical placements (72.5%). Psychological stress was another issue, with 70% of students feeling overwhelmed by written work and 69% fearing instructor judgment. Moreover, 49.3% of students experienced inappropriate behavior from medical staff, and 39.1% refrained from

seeking help. Poor supervision, resource shortages, and weak institutional coordination were the primary causes of dissatisfaction in clinical education. Strengthening collaboration between nursing colleges and hospitals, enhancing faculty support, and ensuring adequate resources are necessary to improve clinical learning outcomes (Chandio, 2024). Abu Negm et al. (2024) showed 62%s moderate challenges, 24% mild, and 14% of the study's respondents showed severe challenges during clinical rotations. Clinical training enhanced the students' skills but hindering factors such as inadequate supervision by 47% of the respondents, unwillingness with fear by 37.9%, and unit restrictions of 65.9% caused barriers. Clinical trainings were appreciated for their value by 50.2% of the students, but the attempted performance related difficulties such as 65.9% time/place challenges and 49% overworked without appropriate breaks. Lack of sufficient rest periods of over 54.5%, more than 46.4% of respondents having the ability to work without supervision, was detrimental to learning. It is necessary to solve these issues using supportive faculty, a well-structured curriculum, and adequate resources to improve clinical education. (Negm et al., 2024)

METHODOLODY:

Research Design:

This study followed a Descriptive Cross-sectional design.

Study Setting:

This study was conducted in two Nursing colleges:

1. Liaquat College of Nursing, Jamshoro.
2. People Nursing School, Jamshoro.

Sampling Technique:

Non- probability, convenience sampling method was used to collect the data.

Sample size:

The sample size was calculated by using Raosoft, an online sample size calculator. The total population was **260** nursing students taken from two colleges, with **95%** confidence level and **5%** margin of error. The total sample size is **165** participants with addition of **10%** non-response rate.

Data Collection Process:

Permission was granted by Director of People's Nursing School, Jamshoro and Principal Liaquat College of Nursing (female) Jamshoro. Participants were fully informed about the study's purpose, procedures, risks and benefits. Verbal and written informed consent was obtained, ensuring that participation was voluntary and the participants could withdraw at any time without affecting their care.

Data Collection Tool:

This data was collected on the pre-formed questionnaire tool; the questionnaire was distributed to the 2nd and 3rd year of BSN nursing students.

The data was collected from structured questionnaire, which is divided into two sections

Section A: It consists of demographics data, includes age, gender, marital status, educational years and the wards placements.

Section B: The questionnaire consisted of total 20 items where students were provided responses on Likert-type scale, ranging from "strongly disagree" (1) to "strongly agree" (5). This questionnaire helps to assess impact the clinical rotation on nursing student's clinical competence. This questionnaire adopted by the (Yaas et al., 2023) (the permission from author) from their research topic of **"Assessing the effectiveness of clinical rotation in preparing undergraduate nursing students for practice".**

Data Analysis:

Data were analyzed by SPSS 26.0 and Microsoft Excel. Descriptive statistics which include the frequencies a percentage.

Ethical Considerations:

Permission was granted by Director of People's Nursing School, Jamshoro and Principal, Liaquat College of nursing female jamshoro. Participants were fully informed about the study's purpose, procedures, risks and benefits. Verbal and written informed consent was obtained, ensuring that

participation was voluntary and the participants could withdraw at an any time when they wish to discontinue.

RESULT SECTION:
CHART NO: 01
AGE-WISE DISTRIBUTION OF STUDY PARTICIPANT:

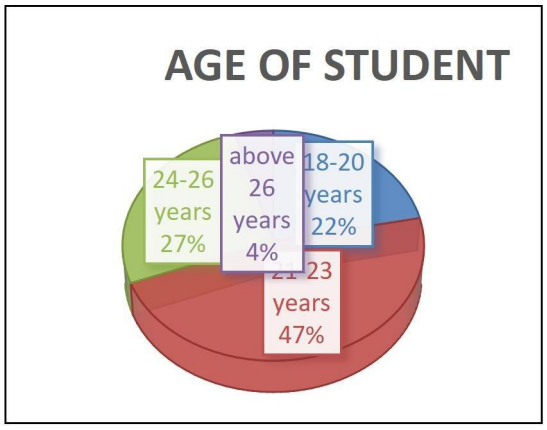

Chart no: 01 show that majority of participate (47.3%) were aged between 21-23 years, followed by (26.7%) between 24 and 26 years, 21.8% aged 18-20 years and small percentage (4.2%) aged above the 26 years.

CHART NO: 02
GENDER CATEGORY OF PARTICIPATE:

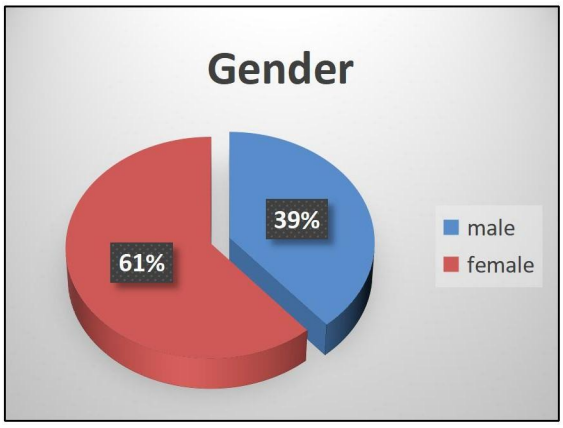

Chart no: 02 show the gender, 61.2% of the respondents were female, while 38.8% were male.

CHART NO: 03
EDUCATION YEAR:

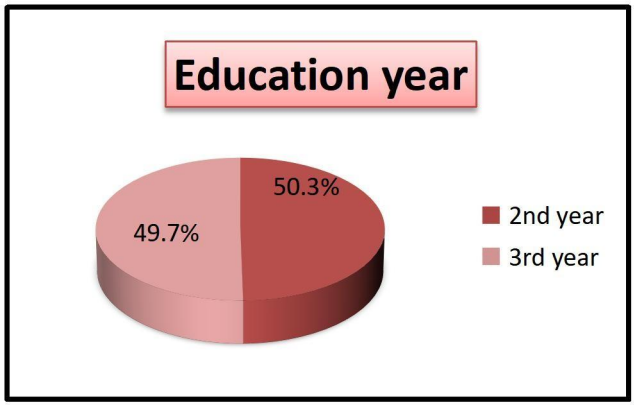

Chart no: 03 shows that the most of the participants (50.3%) were in the 3rd year while (49.7%) were in the 2nd year.

CHART NO: 04
CLINICAL PLACEMENTS OF PARTICIPANT:

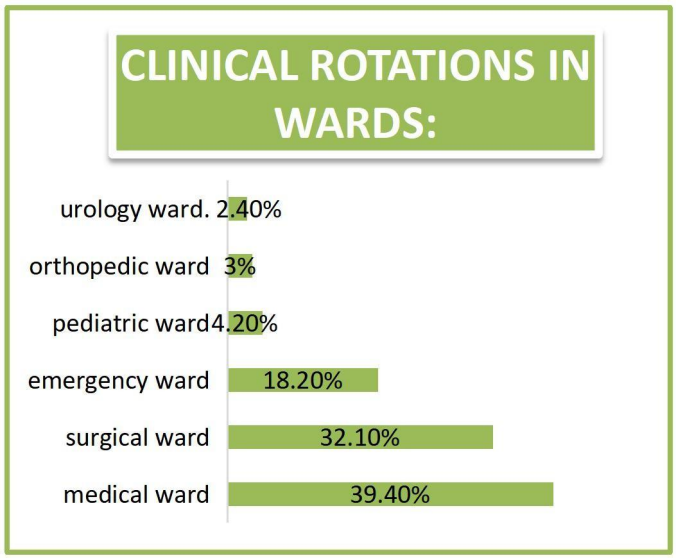

Chart no: 04 shows the clinical placements of participants were distributed across various departments. The Medical unit had the highest representation at 39.4%. Followed by the surgical unit at 32.1%, Emergency ward accounted for 18.2%, Pediatric units 4.2%, orthopedic wards 3% and Urology wards 2.4%

Table no: 01: Responses of participants:

No:	Statement.	Strongly disagree.	Disagree.	Neutral.	Agree.	Strongly agree.
1.	I feel confident communicating with physicians.	35 (21.2%)	11 (6.7%)	26 (15.8%)	47 (28.5%)	46 (27.9%)
2.	I feel comfortable communicating with patients and their families.	6 (3.6%)	14 (8.5%)	19 (11.5%)	92 (55.7%)	32 (20%)
3.	I am comfortable delegating tasks to the nursing assistant.	18 (10.9%)	22 (13.3%)	42 (26.7%)	65 (39.4%)	16 (9.7%)
4.	I have difficulty documenting care in the electronic medical record.	15 (9%)	49 (29.7%)	33 (20%)	43 (26%)	25 (15.2%)
5.	I have difficulty prioritizing patients care needs.	18 (10.9%)	55 (33.3%)	22 (13.3%)	40 (24.2%)	30 (18.2%)
6.	My clinical instructor provided feedback about my readiness to assume an RN role.	21 (12.7%)	34 (20.6%)	34 (20.6%)	37 (22.4%)	39 (23.6%)
7.	I am confident in my ability to problem solve.	17 (10.3%)	14 (8.5%)	28 (17%)	55 (33.3%)	51 (30.9%)
8.	I feel overwhelmed by ethical issues in my patients care responsibilities.	15 (9%)	30 (18.1%)	39 (23.6%)	51 (30.9%)	30 (18.2%)
9.	I have difficulty recognizing change in my patient's condition.	20 (12.1%)	45 (27.3%)	26 (15.8%)	40 (24.4%)	34 (20.6%)
10.	I have opportunities to practice skills and procedures more than once.	12 (7.3%)	23 (13.9%)	25 (15.1%)	65 (39.4%)	40 (24.2%)
11.	I am comfortable asking for help.	9 (5.4%)	15 (9%)	26 (15.8%)	80 (48.4%)	35 (21.2%)
12.	I use current evidence to make clinical decisions.	10 (6%)	16 (9%)	21 (12.7%)	79 (47.9%)	39 (23.6%)
13.	I am confortable communicating and coordinating care with interdisciplinary team members.	6 (3.6%)	23 (13.9%)	21 (12.7%)	62 (37.6%)	53 (32.1%)

14.	Simulations have helped me feel prepared for clinical practice.	33 (20%)	16 (9.7%)	18 (10.9%)	44 (26.7%)	54 (32.7%)
15.	Writing reflective journals/logs provided insights into my own clinical decision-making skills.	19 (11.5%)	26 (15.7%)	21 (12.7%)	48 (29%)	51 (30.9%)
16.	I feel comfortable knowing what to do for a dying patient.	22 (13.3%)	38 (23%)	33 (20%)	60 (36.4%)	12 (7.3%)
17.	I feel comfortable taking action to solve problems.	15 (9%)	19 (11.5%)	30 (18.2%)	81 (49%)	20 (12.1%)
18.	I feel confident identifying actual or potentials safety risks to my patients.	18 (10.9%)	25 (15%)	28 (17%)	57 (34.5%)	37 (22.4%)
19.	I am satisfied with choosing nursing as career.	14 (8.5%)	25 (15%)	21 (12.7%)	39 (23.6%)	66 (40%)
20.	I feel ready for the professional nursing role	11 (6.7%)	25 (15%)	26 (15.7%)	50 (30.3%)	53 (32.1%)

The results showed that clinical rotations enhanced students' clinical competency in many sectors. More than half of the students (56.4%) said they were confident speaking with physicians, and 75.7% said they felt at ease speaking with patients and family members. About 69.7% also felt they could properly work with other healthcare team members to enable communication and coordination. These findings indicate that teamwork and communication were positively promoted through the student's clinical experience. Moreover, 48.4% of students indicated comfort asking for assistance during clinical experiences. This suggests that the clinical rotations were filled with an appropriate level of support and team-based learning. Regarding delegation of leadership tasks, 49.1% of students felt comfortable assigning tasks to nursing assistants and 24.2% indicated uncertainty or discomfort with this delegation. This indicates that students require more guidance in this leadership and delegation skill. In relation to clinical problem-solving, 64.2% of the students reported feeling confidence in their ability to identify solutions in clinical situations and 69.7% of students stated feel comfortable taking the initiative to act independently to solve problems in clinical situations. Students also provided input into decision-making and critical thinking. Of students, 71.5% stated a tendency to utilize current and available evidence when identifying options as a part of their clinical decision-making. 60% of students indicated that writing reflective journals had fostered some improvement in clinical decision-making. Overall, these findings illustrate how clinical training, paired with academic measures, not only foster and build student confidence when using theory into practice; however, identifying changes in patients '

conditions occupies the same degree of the student's healing relationship, humanism, and resulting responsibility.

Experiencing repeated and practiced opportunities in clinical skills was another positive outcome of rotations, with 63.6% of students reporting that they had multiple opportunities to carry out procedures. Continuing, 59.4% of students also reported that simulations helped them feel prepared for clinical work. Feedback from clinical instructors was also informative, as 46% of students reported guidance they received was helpful in regard to their preparation for professional nursing responsibilities. Yet, areas were also difficult for students. Documentation in electronic medical records proved difficult for 38.7% of respondents. Furthermore, 44.2% of students reported trouble organizing care needs for patients. About 49.1% of students reported feeling overwhelmed when required to engage in ethical conduct related to patient care, and only 43.7% felt prepared to provide for dying patients. These results suggest students have many positive experiences similar to their clinical practice; however, further support is recommended in the areas of emotional and ethical matters when caring for patients. Patient safety is another crucial skill that is prepared during students' rotation in the clinical setting. In fact, 56.9% of students reported that they felt prepared to recognize actual or potential safety risks. Though there was still close to 26% reporting they felt uncertain or disagreed, it appears, just like other experiences, this is another important aspect that warrants additional attention when the clinical placement occurs. Lastly, when directly asked about how students felt regarding their readiness about taking on the professional role, 62.4% reported they felt ready to take on the role of nurses. Furthermore, 63.6% reported being happy to have chosen nursing as their profession.

DISCUSSION

The research study was conducted to assess the effectiveness of clinical rotation in nursing students' clinical competence. This study was conducted on the total sample of 165 students. The result shows that 56.4% of nursing students agreed or strongly agreed that they felt confident communicating with physicians while 27.9% of participants disagreed, they felt discomfort to communicate with physicians. A study conducted in Iran shows that 80% of participant felt confident communicating with physician. (Yaas et al., 2023)

The research study, 75.7% nursing students reported that they feel comfortable to communicating with patients and families while 12.1% of nursing students felt uncomfortable to talk with patient and families. A study in Iran shows that 80% also report that comfort to talk with patients and families (Yaas et al., 2023). Another study founded that 72% of students in their study gained communication confident through clinical exposure. (Alhassan et al 2021). Delegation is another crucial skill in the skill clinical competence. In this study, 49.1% of nursing students reported feeling comfortable to delegating tasks to nursing assistants. A study shows that 61.9% agreed that staff allowed them to perform tasks, which is critical to delegation (Getie et al., 2021).

The research study indicated that 69.7% expressed ease in communicating and co-ordaining care with interdisciplinary teams. Another study in Iran shows that 65% nursing students felt confident in interdisciplinary co-ordination (Yaas et al., 2023). A study shows that 56.7% of students agreed that staff monitored them, which can encourage multidisciplinary interaction (Getie et al., 2021). Another study shows that 70% of nursing students reported improved delegation and teamwork skills after clinical placements (William, A., et al 2020).

Clinical rotations appear effective in building decision making and problem – solving abilities. In this study about 64.2% of nursing students expressed confidence in their problem solving abilities while a study in Iran show those 65% students felt

confident in problem solving abilities. (Yaas et al., 2023). Another study shows that presence of assessment checklists increased competency by 2.66 times, supporting structured problem-solving skill development.(Getie et al., 2021) In this study, 71.5% stated they use current evidence for clinical decision. Another study in Iran shows that 75% stated they use evidence-based decision making (Yaas et al., 2023). Another study shows that 68% of nursing students improved their clinical judgment after exposure to varied patients scenario (Nabolsi et al., 2021). However, the research study shows that documentation and prioritization remain challenging areas. In this study, about 41.2% of nursing students has difficulty documentation care in electronic medical record. A study in Iran shows that 40% of students experienced difficulty with EMR documentation (Yaas et al., 2023). Another study shows that 42% of nursing students faced challenges with EMR documentation due to limited hands-on training (Lee 2021). Another study showed that only 38.7% of received a clinical practice logbook, indicating limited documentation support (Getie et al., 2021). In this study shows that 44.2% students struggled with prioritizing patient care, while in Iran study reveal that 65% students struggled with prioritization (Yaas et al., 2023). Feedback from clinical instructors is vital for growth; in this study only 46% of students reported receiving such feedback about their readiness to assume the RN role. A study in Iran shows that 50% of students agreed or strongly agreed that feedback on their readiness foe the RN role, showing alignments with these concerns. (Yaas et al., 2023). Another study noted that 63% of students received consistent feedback in well-structured clinical placements. (Gholami et al. 2019). Another study shows that only 22.6% students received constructive feedback from instructors during clinical rotations. And only 33.6% followed by instructors while performing procedures. (Getie et al., 2021). Ethical issues are common in healthcare, and this study shows that 49.1% of nursing students admitting feeling overwhelmed by them. A study in Iran shows that 55% go nursing students agreed they felt overwhelmed by ethical challenges. (Yaas et al., 2023). Another study shows that 52% of students faced difficulty navigating ethical situations, indicating a consistent gap in ethics training (Abbaszadeh et al., 2020). In this study 39.4% had difficulty recognizing changes in the patient's condition. A study in Iran 50% reported difficulties recognizing patient condition changes. (Yaas et al., 2023). A study shows that 71% of students were found to be clinically incompetent in observed practical sections which suggested difficulty in managing priorities during procedures. (Getie et al., 2021)

Repetition is essential for skill mastery. In this study, 63.6% of students agreed that they had multiple opportunities to practice procedures. A study in Iran shows that 55% of participants had repeated skill practice opportunities (Yaas et al., 2023). Another study shows that 65% of students felt more competence after multiple hand-on practice (Beattie et al. 2019). Another study shows that 63.2% of students reported that staff encourages them during clinical practice, promoting active participation (Getie et al., 2021).

Simulation is increasingly used in nursing education to prepare students for clinical challenges. In this study shows that about 59.4% of students reported that simulations helped them fell ready for clinical practice. A study revealed that 61% of students stated that simulation improved their confidence and decision-making (Tawfik et al. 2020). Confidence in recognizing safety risks was reported by 56.9% of participants, suggesting awareness and a safety mindset. A study revealed that 58% of students in their research demonstrated improved safety vigilance following rotations (Kaasalainen et al, .2019).

Finally, 63.6% students agreed that they were satisfaction with choosing nursing as a carrier. While study from Iran 63.6% stated same. (Yaas et al., 2023) In this study,

69.7% of nursing students reported that they felt comfortable asking for help. A study shows that 43.3% of students stated that staff did not monitor them, implying limited interaction and confidence in asking for help. (Getie et al., 2021)

CONCLUSION

Clinical rotations significantly improved the clinical competence of nursing students; almost 65% of them showed overall improvement in crucial areas including decision making, patient safety, and communication. Students grow increasingly at ease using theory in real life. However, problems with ethical treatment, documentation, and end-of-life care endured, emphasizing the need for focused support.

LIMITATIONS

- The research was restricted to two nursing colleges in Jamshoro and impacted generalizability.
- Self-reported questionnaires can lead to response bias.
- Cross-sectional design prohibits tracking changes over time.

RECOMMENDATIONS

- Incorporate timely and structured feedback processes from clinical instructors.
- Enhance mentorship initiatives to offer stable guidance throughout rotations.
- Integrate simulation-based training for improved clinical readiness.
- Enhance access to modern equipment and skill laboratories for practice.

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