ORIGINAL ARTICLE

The Impact of Standard in-Patients Exposure on Clinical Judgement among Undergraduate Nursing Students at Shalamar Nursing College Lahore

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ABSTRACT

Background: Clinical judgment skills development of nursing professional is essential and vital during clinical education. This quasi experimental study hasevaluated the impact of standardizedIn-patient's exposure on clinical judgment among under graduate nursing students using observational measures.

Method: A single group of undergraduate students was recruited with purposive sampling at College of Nursing, Shalamar Hospital Lahore, Pakistan and Tanner's clinical rubric model was used. A total 78 under graduate nursing students accomplished in five In-patients exposure within 45 clinical hours. Two Clinical Nursing Instructors were hired to evaluate the outcome of nursing students; clinical judgment at the end of each standardized in-patient exposure session. The inter-rater reliability ranged 0.830 to 0.90 for the session.

Results: Clinical judgment outcome were improved from first in-patient exposure to last patient exposure compared with pre and post data of clinical judgement of patient second, third, fourth and fifth. The debriefing method was helpful for the undergraduate nursing students to improve their critical thinking. The undergraduate nursing students confessed that in-patient exposure has not only uplifted their clinical experience but also strengthened the critical thinking in emergency situation and improve the ability to notice, interpret, and respond suitably. The clinical nursing faculty also highlighted and valued the newly learned knowledge and commented that exposure of In-patients to under graduate nursing students is essential for clinical skills preparation.

Conclusion: Standardized In-patient exposure has potential to support the undergraduate nursing student for the development of clinical judgement. No doubt, the clinical instructor has enhanced nursing professional's intrinsic motivation but standardized in-patient presented a true picture, while learning to complete assessment skills.A difference may exist between high fidelity simulator and standardized in-patient exposure among undergraduate nursing students, so further research can explore this phenomenology.

Key words: Nursing students, Clinical Judgment, Standardized in-patients, Nursing professionals.

INTRODUCTION

Nursing student's clinical judgment and understanding of the client health status and reaching conclusion to intervene can minimize the sufferings and enhance life expectancy. Every critical patient possesses different and complex sign and symptoms on assessment and it's very urgent for the health care professional to take appropriate decision(Jessee & Tanner, 2016). Nursing students utilize their professional skills and clinical expertise in such critical situation in order to recognize, make an interpretation and take a decision how to intervene(Huang, Huang, Lee-Hsieh, & Cheng, 2018). Clinical judgment is a critical skill in providing quality of nursing care for individual clients. Moreover, it also improves and enhances the decision making power of undergraduate nursing students.

Clinical judgment is more reliable, when you have well developed observational and reasoning skills. Therefore, in nursing clinical competency skills, clinical reasoning and decision making power should be an essential part of nursing professional curriculum (Monagle, Lasater, Stoyles, & Dieckmann, 2018). When standardized In-patients are available, clinical nurse instructors can easily guide learning skills for their students. The utilization of in-patients allows undergraduate nursing students to examine critical situation systematically, by applying theoretical knowledge. In addition, nursing students can develop sound clinical judgment through integration of clinical reasoning and critical thinking (Manetti, 2019).

The exposure of Standardized in-patients has to be cast off for teaching, learning and practicing purposes for undergraduate nursing students and their skills of communication, prioritizing and time management can be enhanced through clinical judgment (Bastable, 2017). Moreover, these in-patients can deliver realistic pathophysiological condition and accurate diagnosis can minimize the nursing care error without consequences. Standardized patient is the best way to promote clinical reasoning, judgment and in depth learning and knowledge transformation (Gonzalez, 2018).

Chinese nursing students learn by the wisdom of their teachers, who guide them with sufficient knowledge to make good decision (Mohiaddin, Malik, Murtagh, & practice, 2019). They utilize real pictures of standardized patient in their teaching system and this interactive environment creates rooted conception of theoretical knowledge in that specific cultural context (Mohiaddin et al., 2019). That why, there is dire need to reexamine outdated method of teaching. Healthcare environment is becoming multifaceted and nursing professionals should be well prepared for analyzing the critical situation, problem interpretation and making decision effectively(Powers, Herron, & Pagel, 2019). In this study, each case is based on standardized In-patient pathological picture and undergraduate nursing students have been facilitated for their learning skills in terms of clinical judgment and development of critical thinking.

On the other hand, undergraduate nursing students has utilized high fidelity simulator to enhance their theoretical knowledge and clinical skills between 2000 and 2013 (Cant & Cooper, 2017). However, simulation did not enhance nursing student's self-confidence and competency (Cant & Cooper, 2017). Clinical judgment is particularistic and dependent of typical situation that can be validated through real patients. Therefore, Lasater rubric (Lee, 2021) is used to assess the undergraduate nursing student's clinical judgment and recognition of study gap among simulation and standardized patient exposure.

Study purpose: This research purpose was to analyze the effect of Standardized In-patients exposure on clinical judgment among undergraduate nursing students at Shalamar Hospital Lahore, when learning to complete physical assessment skill. The research question was explored as "what will be the level of clinical judgment, when standardized in-patients are being used in learning to complete physical assessment skill?

Conceptual Framework: Clinical judgment was evaluated by Tanner's rubric model, which has components of noticing, interpretation, responding and reflecting. Noticing was constructed as having adequate knowledge about the emergency condition and making sense of specific clinical situation is interpretation. Patient's situation was interpreted through three reasoning pattern of thinking (analytical reasoning, intuition and narrative thinking). How to intervene is responding and results of intervention or achievement of desire goal is reflection (Jang & Park, 2021).

Figure 1: Clinical judgment conceptual framework in standardized In-patient learning skills

The outcome of client is directed to intervention through reflection in action and reassessment based on manipulating the intervention. While, reflection on action is determined by skill performance, patients' critical condition, and taking final decision. Undergraduate nursing student were exposed to standardized in-patients and they were allowed to recognize an abnormal condition or an unexpected outcome through history and health assessment. Clinical instructor will assess the student during this process of health assessment and history inquiries. Finally, reflection of nursing student were interpreted as what was happed and how the responded and what requirement should be improved.

The reflection andintegration of feedback showed that students were capabale to synthesize knowledge and make sound and safe decision (Dickison, Haerling, & Lasater, 2019). The conceptual frame work of clinical judgmentof undergraduate nursing utilizing standardized in-patients is shownin the figure.

Methodology

Study design: Pre and posttest quasi experimental study was at one nursing college in Lahore, Pakistan.

Sample Size: The study participants were 78 nursingstudents that have registeredthe course of health assessment. All the participants completed all the session with standardized in-patients. The average age was 22.5 years.

The exposure of Standardized In-patients with undergraduate nursing students: The standardized in-patients were selected from Shalamar Hospital Lahore, Pakistan. Two clinical nursing instructors were hired and under their supervision undergraduate nursing students performed assessment skills on five selected patients with medical and surgical diagnosis. Patient A 32 year, old male with Pneumonia, Patient B a 72 year, male with Acute Respiratory Distress Syndrome (ARDS), Patient C a 68 year, old male with Chronic Obstructive Pulmonary Disease (COPD), Patient D 73 year, old man Ulcerative Colitis and Patient E 42 year, old male with acute appendicitis. Undergraduate Nursing students were assigned to take part in five different standardized in-patients one by one, started from patient A and finished at patient E consuming 1 clinical credit hour. The health assessment session was accomplished within 6 to 8 hours under the supervision of two clinical nurse instructors.

An orientation was given to study partaker in the simulation laboratory to familiarize with standardized in-patient. The process of leaning included as case identification, health assessment, nursing intervention and debriefing. Nursing students were exposed through standardized In-patients. Moreover, they review the medical/surgical diagnosis and clarify, what has been happened with client and how to intervene. During the period of client's exposure, they have performed health assessment, clinical data collection and appropriate intervention by not violating the ethical principles. The nursing student's main concern was to identify the provoking and relieving factors utilizing general assessment skills. Moreover, undergraduate nursing students also conducted the systemic assessment of abdomen, skin, and musculoskeletal, respiratory and cardiovascular system including vital signs.

They have to identify pathophysiological changes, intervene and educate the client accordingly. Health history was included as: allergy, medication, previous illness and family history. However, during this period of assessment, they have to manage the concerns of in-patients: pain, nausea vomiting, cough and breathlessness. After the nursing assessment and data collection, nursing students were directed to intervene dependently and independently. Moreover, they can administer the medication, oxygen therapy as ordered by the physician. However, if they encounter critical situation, they can intervene within the scope of practices by calling the supervisor and physician. At that time, clinical Instructors make reflection on their performance, identify the encounter mistakes. Furthermore, discuss and encourage them, how to modify the assessment and intervention.

Every nursing student has utilized five different patients with medical and surgical diagnosis. In this way, undergraduate nursing students focused on the importance of assessment, communicant skills, priority setting, ensured safe practices, and resource management. So that, right decision should be executed and the research question would be explored as; "what will be the level of clinical judgment among undergraduate nursing student, when standardized in-patient are being used in learning to complete the physical assessment skills?"

Instrument: The Lasater (2007) Clinical Judgment Rubric (LCJR) was utilized to develop an observational checklist of clinical judgment and clinical judgment was evaluated. Itcomprised of noticing (3item), interpreting (2 items), responding (4 items) and reflecting (2 items) and noted the phase of performance where beginning= 1, developing=2, accomplished =3 and 4 as exemplary. In addition, The rubric was divided into four phases 1) Noticing (less than 3 poor, 4-8 good and 9-12 excellent), 2) Interpreting (less than 2 poor, 3-4 good and more than 5 excellent), 3) Responding (4 poor, 5-8 good and more than 8 excellent), 4) Reflecting (2 poor, 3-4 good and more than 4 excellent). The overall interpretation of result is as less than 11 poor, 12-22 good and more than 22 excellent. The overall percentage was calculated as poor (less than 25), good (26-50) and more than 50 is excellent.

Data collection and Analysis methods: Standardized in-patient provided the opportunity to under graduate nursing students for evaluating their performance of clinical judgment using the Rubric. Clinical nursing Instructors have reviewed the LCJR with scoring sheet and each score was highlighted with rationale at the end of each session. The score averages of two raters were calculated. Data was analyzed on SPSS version 21. Pre and posttest was applied to assess the difference and independent sample t-test was carried out to compare the means scores of LCJR with each session of standard in-patient exposure.

Ethical Consideration: The Board of management of institute has approved this study by considering the protection of human rights and research process. The undergraduate nursing students were explained about the nature of study. Nursing students were permitted to withdraw at any time. Autonomy and confidentiality of participants were assured during the study period.

Study Outcomes: The clinical judgment of undergraduate nursing students has improved from standardized patient A to E exposure.

In addition, standardized in-patient exposure was helpful for the nursing students in the development of clinical judgment while noticing, interpreting, responding and reflecting (table.1). It was also interpreted, that student's post standardized in-patient exposure consistently has increased scoring of clinical judgment than pre-exposure (Table.2).

Table.1 Result of Standardized in-patient exposure (N=78)

Clinical Judgment	Patient A	Patient B	Patient C	Patient D	Patient E	RM-ANOVA
Noticing	5.48(1.42)	5.58 (1.06)	6.23(1.21)	6.88 (1.47)	7.36 (1.29)	$P = 0.000$
Interpreting	3.73 (0.86)	3.76 (0.95)	4.39 (0.84)	4.71 (0.93)	5.09 (0.84)	$P = 0.000$
Responding	6.31(1.36)	6.37 (1.51)	7.15(1.41)	8.13 (1.61)	8.69 (1.93)	$P = 0.000$
Reflecting	3.78(0.96)	19.06 (3.87)	3.97(1.03)	4.14 (1.11)	4.75(1.15)	$P = 0.000$
Overall	19.30 (3.13)	19.06 (3.87)	21.74 (3.98)	23.87 (4.68)	25.89 (4.72)	$P = 0.000$

Table.2 Pre-posttest of Clinical Judgment among undergraduate nursing students (N=78)

Standardized In-patient Exposure on Patients A-E		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Patient A	Pre-Posttest	4.179	3.298	.373	4.923	3.436	-11.192	77	.000
Patient B	Pre-Posttest	1.244	3.506	.397	2.034	.453	-3.133	77	.002
Patient C	Pre-Posttest	1.179	3.692	.418	2.012	.347	-2.822	77	.006
Patient D	Pre-Posttest	1.744	4.021	.455	2.650	.837	-3.830	77	.000
Patient E	Pre-Posttest	3.269	5.327	.603	4.470	2.068	-5.420	77	.000

The results indicated that undergraduate nursing students confessed that standardized in-patient exposure has fortified their theoretical knowledge through appropriate clinical judgment. They have clarified that previous knowledge, analysis of data, patients actual and potential needs and pathological condition has rectified.

Nursing students have reflected that standardized in-patients facilitated them for notification, responding, interpretation, if emergency situation exist then intervene appropriately. In addition, this enriched their critical thinking and reasoning skills, for example, we have explained the condition of patient timely and guide them accordingly while assessment. Standardized in-patient exposures held us realize what went well, what did not, and we definitely learned from patient feedback. These scenarios enhanced our performance and critical thinking.

DISCUSSION

The finding of the study suggested that standardized in-patient exposure helped the undergraduate nursing students to transform class knowledge and skills for practice in clinical rotations. Moreover, it improved the critical thinking, clinical reasoning and clinical judgment. Patients were assessed, significant aspects were recognized, narrative and analytical thinking for interpretation were encouraged and evidence based rationale were practiced to generate appropriate response according to circumstances(Facione, Facione, & anthology, 2008).

Clinical reasoning and judgment encouraged the nursing students to direct their attention towards patient's basic needs and can understand emotional status and helped them in coping with situation. The standardized in-patient interaction empowered students to read the client's response to nursing intervention. Clinical judgment was enhanced by meticulous analysis of data, reasoning and logical interpretation.

The results of this study were sustained by various studies. One study supported that human patient simulators can increase students' knowledge, minimize anxiety and enhance clinical judgment in safe practices environment(Rhodes & Curran, 2005). Active participation in a variety of clinical scenarios is an enjoyable way to strengthen the student's ability to make appropriate clinical decisions. Standardized in-patient exposure was beneficial for student's confidence regarding patient care decisions, and progressing to the advanced stage of practice.

Nurses' theoretical knowledge, practical experience and ethical perspective cultivate clinical judgment(Tanner, 2006). The interesting finding in this study was that clinical judgment was enhancing as the exposure to patient was increased. The engaged in active learning and deep discussion with patient, thus greater achievement was identified in clinical reasoning and judgment.

Limitation of Study: The findings of this research cannot be generalized, because of small sample size and only one nursing institute was nominated. However the rubric has potential relevance for other nursing and medical teaching Institute and clinical contexts including long-term care and community settings.

Recommendation: Clinical nursing instructor should be hired for proper supervision of students during clinical rotation. So that evidence based practice can be maximized. Further research is needed to explore according to level of students like 3rd year and final year students. The performance indicators associated with the rubric require more research to address content and construct validity in different cultural contexts in order to more accurately reflect the current understanding of each aspect of Tanner's clinical judgment model.

CONCLUSION

The study has securitized one aspect of clinical education activity in Shalamar Nursing College. The LCJR model was utilized to evaluate the impact of undergraduate nursing student's clinical judgment upon exposure to Standardized in-patients. These patients offered a realistic learning environment to promote clinical thinking, reasoning and potential to develop sound clinical judgment among nursing students.

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