

EFFECT OF REFLECTIVE THINKING PRACTICE ON BASIC PROCEDURAL SKILL AMONG FIRST YEAR UNDERGRADUATE NURSING STUDENTS

Tejal Karlekar

Tutor, Department of Medical Surgical Nursing, MGM New Bombay College of Nursing, MGMIHS, Kamothe, Navi – Mumbai.

Ferganzia Jubilson

Associate Professor, Department of Medical Surgical Nursing, MGM New Bombay College of Nursing, MGMIHS, Kamothe, Navi – Mumbai.

ABSTRACT

Background: Reflective thinking is the process that involves thinking deeply and critically about event, experience, or information to gain insight, make connections, and develop a deeper understanding of oneself and world. The learning practice of reflective thinking helps to understand the learning requirement needs and adopt deep approaches towards learning, to understand one's personal feelings, beliefs, attitudes, values, and ideas to integrate them into learning to build up the knowledge base which involves linking new to existing knowledge.

Objectives: The objectives of the study were to assess the basic procedural skill among First Year Undergraduate Nursing students, and to compare the basic procedural skill before and after reflective thinking practice among First Year Undergraduate Nursing students.

Methodology: Quantitative approach with quasi-experimental one group pre-test post-test design was used. 80 samples were selected through the Non-Probability Convenience sampling technique from two selected Nursing Colleges. The data collection was done with Structured questionnaires and Observation checklists. **Result:** The majority of 66(82.5%) First year Undergraduate Nursing students completely performed basic procedure after providing reflective thinking practice. A paired t -test indicated that there was difference between the pre-test basic procedural skill and the post-test basic procedure. Hence Null Hypothesis was rejected and H₁ Hypothesis was accepted. The reflective thinking practice helps Undergraduate Nursing Students to improve their problem-solving skill, identify their strengths and weakness, perform self-analysis, and evaluate the procedural decisions.

Keywords: Reflective thinking practice, skill, thinking, Basic Procedure, undergraduate

INTRODUCTION

The first concept of “Reflective Thinking” was introduced by John Dewey in 1910. He stated that all reflective processes involved both inductive and deductive thinking. He believed that full thought required both inductive and deductive reasoning. According to Dewey, “to think” is integrating different data or information from related acts together.

A relative illustration of reflective thinking as given by Dewey in the book “How we Think” is that the inductive movement aims to discover the integrating principle of fragmented facts, and the deductive campaign aims to validate and interpret isolated data into a complete experience.¹ The idea and theory of single and double-loop learning were introduced by Schon in 1978. The concepts of reflection in action and reflection on action were first introduced by Schone. He

saw artistic reflection as essential. Schon describes in their book “Educating Reflective Practitioners” that they frequently deal with complex and unclear situations where there are rarely right answers.²

David Kolb introduced the learning style model in 1984, from which he created his learning style inventory. He describes the four-stage learning cycle and the four different learning styles, both elements of Kolb experiential learning theory. According to Kolb’s reflective model, reflection is an important component that starts the learning process. Without reflection, a person would not be capable of learning lessons from their experience; instead, they would keep repeating the same emotions, behaviours, and practices throughout a never-ending series of experiences.³

A meta-analysis study was conducted with the goal of identifying and analysing the association between reflective thinking and educational achievement. The datasets were from electronic database searches conducted between 2012 and 2021 on google scholar and international journals. After a performance review, 22 research papers found through the search fit the basic criteria. The results show that reflective thinking and students’ performance are significantly correlated, in line with earlier studies on reflective thinking skills and academic achievement.⁶

NEED OF THE STUDY

Modern society is turning into greater sophisticated; records are becoming more readily available and converting faster requiring users to regularly reassess, adapt their approaches, and introduce the new problem-solving technique. Reflective thinking encourages students to relate new information to previous knowledge, think conceptually and abstractly, apply specific techniques to unfamiliar tasks, and identify their thinking and learning processes, all of which assist students in building higher-order thinking skills.⁴

The nurse must be trained to meet the requirements of a variety of patients, work as a leader, advance knowledge that helps learners in patient care and increase the ability of nurses to provide high quality of patient care. They must be capable of assessing new knowledge and engaging in problem-based learning, evidence-based practice, health policy, and system reform. They should be making collaboration with multidisciplinary teamwork and adapt to reflective thinking and problem-solving. Reflection is an essential part of nursing practice; it only works to advance future clinical practice when the practitioner continuously assesses their strengths and weaknesses to promote their development.

Reflective Thinking Practice can help Nursing students improve their basic procedural skill. Through Reflective Thinking Practice students will be able to identify areas of importance, develop strategies for enhancing skills, and can become confident and competent care providers.

Nursing education must develop autonomous, competent nurses who participate in continuous skill and knowledge maintenance. Clinical practice is an aspect of the nursing profession that develops and grows a result of each nurse’s experience All around, reflective practice is incorporated and integrated into all academic fields and health sciences.⁸

A literature review which used a mixed-method approach to investigate the effectiveness of reflective writing as a learning technique in Nursing. The studies investigated the review of variety setting like as Hospital, Community centre and Nursing Homes. The result showed that reflective writing improved the student’s clinical skills and awareness. They were more

concerned with evaluating themselves, their own emotional responses, and their ability to deal in various clinical settings.⁵

AIM OF THE STUDY

The aim of the study is to assess the effect of Reflective practice on basic procedural skill among First Year Undergraduate Nursing students

RESEARCH METHODOLOGY

The objectives of this study were to assess the basic procedural skills among first-year undergraduate nursing students and to compare these skills before and after the implementation of reflective thinking practice. This quantitative research employed a quasi-experimental one-group pre-test and post-test design. A sample of 80 participants was selected using a non-probability convenience sampling technique, focusing on first-year undergraduate nursing students who were readily available and easily accessible to the researcher during the study period. Data were collected using two instruments: a structured questionnaire to gather demographic information and an observation checklist to assess basic procedural skills among the participants. The reliability of the procedural checklist was evaluated using the test-retest method, yielding a reliability coefficient of 0.8. This value exceeds the 0.7 threshold, indicating that the checklist was sufficiently reliable for data collection purposes. A pilot study was conducted to assess the feasibility of the research tools. Ten participants were included in the pilot study, and they were excluded from the main study. The findings from the pilot study confirmed that the research tools and methodology were feasible for conducting the main study.

Data collection instruments:

The process of developing data collection tools was systematic and gradual, informed by a thorough review of numerous research studies. After the initial development, the tools were validated by a panel of 15 experts, whose suggestions were incorporated to enhance their implementation. Reliability testing of the tools was conducted using the test-retest method to ensure consistency. The finalized data collection tool comprised two sections: Section A, a structured questionnaire designed to gather demographic data and Section B, a procedural checklist to assess skills related to basic procedural competencies among first-year undergraduate nursing students.

Inclusion criteria: The study included first-year undergraduate nursing students who expressed a willingness to participate and were available during the data collection process.

Exclusion criteria: The study excluded second-year, third-year, and fourth-year undergraduate nursing students.

Ethical Considerations:

Informed consent was obtained from each first-year undergraduate nursing student before data collection. Permission to collect data was granted by the selected nursing colleges in Navi Mumbai, and the study was approved by the Institutional Ethics Review Committee (IERC) of MGM Institute of Health Sciences, Kamothe.

Analysis and Interpretation

Table 1: Assessment of basic procedural skill among First year Undergraduate Nursing students before reflective thinking practice

n=80

Basic Procedural skill	Pre-test	
	<i>f</i>	%
Completely Performed	17	21
Partially performed	47	59
Not performed	16	20

Table 1 shows that out of 80 First year Undergraduate Nursing students, 17 (21%) had completely performed the basic procedure, 47 (59%) had partially performed basic procedure, and 16 (20%) had not performed the basic procedure. The majority of First year Undergraduate Nursing students had partially performed the basic procedure in the pre-test.

Table 2: Assessment of basic procedural skill among First year Undergraduate Nursing students after reflective thinking practice

n=80

Basic Procedural skill	Post-test	
	<i>f</i>	%
Completely Performed	66	82.5
Partially performed	13	16.25
Not performed	1	1.25

Table 2 shows that 66 (82.5%) First year Undergraduate Nursing students had completely performed the basic procedure, 13 (16.25%) had partially performed the basic procedure, and only 1 (1.25%) had not performed the basic procedure. The majority of the participants had completely performed the basic procedure in the post-test

Table 3: Comparison of basic procedural skill among First year Undergraduate Nursing students before and after Reflective Thinking Practice

n=80

Overall	Mean	SD	Mean Difference	t -value	p-value	level of significance
Pre-test	27.2	4.2	7.9	21.65	0.0001	S
Post-test	35.8	4.48				

(*Statistically significant at $p < 0.05$ % level)

Table 3 shows that the pre-test mean score was 27.2 and the post-test mean score was 35.8, indicating that the post-test mean score was higher than the pre-test score and the difference between the pre-test and post-test mean score is 7.9. The standard deviation of pre-test was 4.2 and post-test 4.48. Here, paired 't' test was used for checking the level of significance of the pre-test and post-test basic procedural skill. A paired t-test indicated that there was a difference between the pre-test basic procedural skill and the post-test basic procedural skill. Hence null Hypothesis was rejected and H_1 Hypothesis was accepted for the basic procedural skill. It is statistically interpreted that the basic procedural skill of First year Undergraduate Nursing students was effective after Reflective Thinking Practice.

n=80

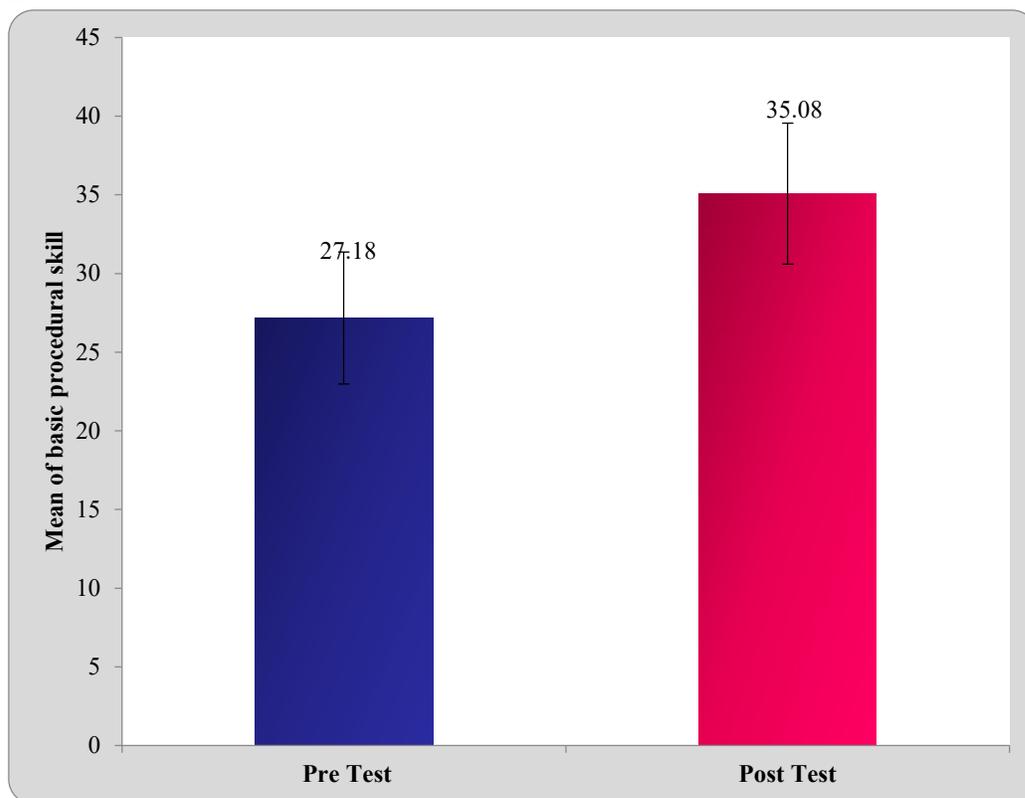


Figure 1: Mean comparison of basic procedural skill between Pre-test and Post-test

Figure 1 shows that the post-test basic procedural skill mean score was higher than the pre-test basic procedural skill mean score. The post test basic procedural skill score indicated the first-year undergraduate nursing students' basic procedural skill was higher in the post-test.

DISCUSSION

Discussion regarding Basic procedural skill

The findings reveal that the majority of First year Undergraduate Nursing students 47 (59%) had partially performed basic procedure in pre-test; whereas 66 (82.5%) had completely performed the basic procedure in post-test. The pre-test mean score was 27.2 and post-test mean score was 35.8 which indicated that the First year Undergraduate Nursing students Basic procedural skill was higher in post-test after providing the reflective thinking practice. The

standard deviation of pre-test was 4.2 and post-test 4.48. The finding shows that the null Hypothesis was rejected and H₁ Hypothesis was accepted for the basic procedural skill.

A cross-sectional study done in 2019 revealed that the higher level of the clinical competence demonstrated by the undergraduate nursing student in post-test after providing Reflective Thinking Practice.⁶

A quasi-experimental study revealed the impact of reflective thinking practice on nursing procedure. The finding shows that the 57.6% of nursing student had a high level of basic procedure skill in post-test. Reflective Thinking Practice was significant in improving the Basic Procedural Skill.⁷ The findings of the review studies align with the findings of the correct study.

CONCLUSION

According to the findings, Reflective Thinking Practice significantly improved the basic procedural skills among first-year undergraduate nursing students. This practice helps students enhance their problem-solving skills, identify their strengths and weaknesses, perform self-analysis, and evaluate their procedural decisions. Additionally, Reflective Thinking Practice contributes to the personal and professional development of students by fostering critical thinking and self-awareness. It plays a crucial role in bridging the gap between what is known and what is unknown, enabling students to connect theoretical knowledge with practical applications. Reflective Thinking on their experiences, nursing students gain a deeper understanding of the rationale behind their actions, recognize what they did well, and identify areas requiring improvement. This process not only strengthens their procedural skills but also enhances clinical judgment, which is essential for delivering high-quality patient care. Reflective Thinking Practice encourages self-directed learning, enabling students to take responsibility for their professional growth and continuously improve their performance. Furthermore, Reflective Thinking promotes emotional intelligence by helping students manage stress, empathize with patients, and communicate effectively in clinical settings. It also prepares students for lifelong learning, which is vital in the ever-evolving field of healthcare. Reflective thinking cultivates a mindset of curiosity and adaptability, motivating nurses to stay updated with the latest evidence-based practices and innovations in patient care. By fostering these essential qualities, Reflective Thinking Practice equips nursing students with the competence and confidence needed to excel in their professional roles and provide patient-centred care.

Conflict of Interest: The authors certify that they have no involvement in any organization or entity with any financial or non-financial interest in the subject matter or materials discussed in this paper.

Funding Source: There is no funding Source for this study.

References

- 1) Rodgers, C., 2002. Defining reflection: Another look at John Dewey and reflective thinking. *Teachers college record*, 104(4), pp.842-866.
- 2) Schon, D., 1983. donald schon (schön): learning, reflection, and change. Accessed April, 11, p.2010
- 3) Mcleodsaul. (2013). Kolb's learning styles and experiential learning cycle. 5
- 4) Austin Z, Gregory PA, Chiu S. Use of reflection-in-action and self-assessment to promote critical thinking among pharmacy students. *American Journal of Pharmaceutical Education*.

- 5) Pohlman S. Reading Ella: Using literary patients to enhance nursing students' reflective thinking in the classroom. *International journal of nursing education scholarship*.
- 6) Huang FF, Shen XY, Chen XL, He LP, Huang SF, Li JX. Self-reported confidence in patient safety competencies among Chinese nursing students. *BMC Medical Education*. 2020 Dec;20
- 7) Anna C, Ler LD. Patterns of reflective thinking and its association with clinical teaching: A pilot study.
- 8) Loka SR, Doshi D, Kulkarni S, Baldava P, Adepu S. Effect of reflective thinking on academic performance among undergraduate dental students. *Journal of education and health promotion*. 2019
- 9) Pandit NJ. Study to assess the effect of reflection on clinical performance in selected procedures by nursing students (Doctoral dissertation, Tilak Maharashtra Vidyapeeth).
- 10) Kovach N, Dix S, Brand G, Siddiqui ZS, Celenza A, Fatovich DM, Innes K. Impact of art and reflective practice on medical education in the emergency department. *Emergency Medicine Australasia*. 2022 Dec 19.
- 11) Teekman B. Exploring reflective thinking in nursing practice. *Journal of advanced nursing*.