THE PERCEPTION AND EXPERIENCE OF NURSING STUDENTS REGARDING THE USE OF ACTIVE LEARNING STRATEGIES

Haq Nawaz ¹, Afsha Bibi ², Amir Sultan ³, Javed Iqbal ⁴, Muhammad Hasnain Shaikh ⁵, Dr. Hafiz Amjad Hussain ⁶ and Nasir Ali ⁷

¹ Final Year Student, BSN, Horizon School of Nursing and Health Science, Karachi.

² MSN Scholar, Ziauddin University, Karachi.

³ Assistant Professor, Tasleem College of Nursing and Health Sciences, Swat, Pakistan. ORCID ID: 0000-0003-0035-7125

⁴ Department of Communicable Disease Center-Hamad Medical Corporation, Doha, Qatar. ⁵ Principal, Horizon School of Nursing and Health Science, Karachi.

⁶ Assistant Professor, Faisalabad Medical University, Pakistan.

⁷ Monitoring and Evaluation Specialist, International Development Organisation- Jordan, Amman.

DOI: 10.5281/zenodo.8385056

Abstract

Active learning is a way of teaching rather than a particular, specialized technique. It necessitates active student participation in carefully planned teacher-structured classroom activities. Objective: This study aims to explore nursing students' perceptions and experiences regarding using active learning strategies. Methodology: This cross-sectional study was conducted at the private nursing institute in Karachi, Pakistan, from May to August 2023. Moreover, this study used a convenient sampling technique. The eighty-seven student participants are included in this study. Results: The survey results reveal that a substantial proportion of nursing students strongly agree with the effectiveness and benefits of active learning strategies. Specifically, 40.2% strongly agree that active learning enhances their understanding of complex nursing concepts, while 47.1% and 43.7% strongly agree that active learning activities are more engaging than traditional lectures. Furthermore, 55.2% strongly agree that active learning helps them retain and apply knowledge effectively, and 51.7% strongly agree that it encourages teamwork and collaboration among nursing students. Notably, 83.9% of students prefer active learning over traditional lecture-based teaching. Additionally, 35.6% strongly believe that nursing education can enhance the implementation of active learning strategies through learning objectives. Conclusion: The survey overwhelmingly supports active learning strategies among nursing students. Most strongly agree that active learning enhances understanding, engagement, and knowledge retention, favoring it over traditional lectures, mainly through case studies. Many also believe that integrating clear learning objectives can enhance its effectiveness. These findings underscore the widespread acknowledgment of active learning's positive impact on nursing education, emphasizing its role in improving comprehension and student engagement.

Keywords: Perception, Experience, Nursing Students, Active Learning Strategie.

INTRODUCTION

In recent years, the main focus of education worldwide has been improving the quality of education. The quality, standards, and performance of efficient and effective student's at all educational institutions are heavily stressed by those in positions of authority or who create policy. When various international organizations, including the PISA (Programme for International Student Assessment), periodically issue the level of education rankings of nations, the emphasis on education becomes increasingly apparent. This circumstance forces nations to continually raise the bar on their educational standards to compete globally (1).

In addition, one of the most frequently discussed goals in every educational institution is to improve the quality of teaching and learning. However, it must be acknowledged that it is not easy to pinpoint the factors influencing learning quality since numerous factors cannot be separated (2). Education professionals, governmental regulations,

and students—the core constituents of education—must all be involved in improving the quality of learning (3). As we enter the era of the Fourth Industrial Revolution and the Fifth Industrial Revolution, students—the primary subjects of education—need to get special attention, especially the Z generation and the alpha generation, which differ from earlier generations in several essential ways (2).

Active learning is a strategy with various teaching techniques that can be used. Using a specific active-learning approach, active learning can require a total course restructure or minor, occasional additions to existing lessons. No strategy is superior to all others, but some may mesh well with particular instructor personalities and instructional approaches (4).

Instructional activities involving students doing things and thinking about what they are doing" is a broad definition of active teaching approaches. Active teaching techniques are thought to allow students to get more fully engaged in the learning process, increasing their comprehension and boosting their output. Therefore, those who support it contend that educators should promote increased student engagement in group projects and individual study. Accordingly, the broad definition of student engagement—which is described as "the students' psychological investment in an effort directed toward learning, understanding or mastering the knowledge, skills or crafts that academic work is intended to promote"—seems to include active teaching approaches (5). Moreover, enhancement of lower- and higher-order cognitive functions is achieved through active learning at a rate comparable to or frequently higher than passive learning techniques (6).

Pakistan, which has one of the largest youth populations, is not the fortunate country; rather, its inadequate education system prevents it from growing at the appropriate rate (7). Furthermore, another recent study suggested active learning strategies for higher education (8). In addition, another Pakistani study found that comparing the active teaching method group to the control group decreased anxiety (9). Another Pakistani study found that the cooperative approach jigsaw strategy was superior to the conventional grammatical translation method for raising students' English knowledge and cognitive ability. The following suggestions were made: (i) policymakers should be taught the cooperative learning approach, and (ii) in-service teachers should be given assistance programs to help them implement cooperative learning techniques in the classroom (10).

Active learning is a way of teaching rather than a particular, specialized technique. It necessitates active student participation in carefully planned teacher-structured classroom activities. This technique can promote student engagement, boost relevance, and improve motivation by actively immersing students in their classroom and experiential learning contexts (11).

Courses and curricula can benefit from active learning because they incorporate student participation in activities, encourage higher-order thinking, problem-solving, and critical analysis, and give teachers and students feedback on the learning process. Additionally, it focuses more on students exploring their attitudes, values, and habits and may boost their drive to learn and develop their skills. It's essential to involve pupils in their education. Not just any active learning technique will deliver the engagement goals (12). Therefore, to achieve successful student learning outcomes, educators must apply tried-and-true teaching techniques (13).

Given today's changing learning environments, educators must continually assess the effectiveness of their teaching tactics to ensure that their students get the intended learning objectives (14). Therefore, this study aims to assess the perception of active teaching strategies. By understanding nursing students' perceptions of these strategies, educators and institutions can tailor teaching methods to better align with students' learning preferences and the evolving demands of the healthcare field. The findings can guide curriculum enhancements that foster critical thinking, practical skills, and adaptability, ultimately contributing to the better preparation of nursing students for successful careers in a rapidly changing healthcare environment.

METHODOLOGY

A quantitative, cross-sectional, descriptive design was utilized to evaluate The Perception of Nursing Students on active learning Strategies. The current study was conducted in a private Nursing School in Karachi. The chosen school was Horizon School of Nursing and Health Sciences, a private nursing school. The target population for the current study was nursing students of selected study settings. The sample size was calculated through Open Epi with a 95% confidence interval with a population of 110, and the calculated sample size was 87.

The participants were selected through the following criteria: The following participants was included in the study. All Generic nursing students are included—both male and female and 18 years and above. The following participants was excluded from the study. Diplomatic Nursing students. Below 18 years. For the current study, the convenience sampling technique was adopted to recruit the participants from the study setting. This study duration was five months, from May to August 2023.

After the approval of data collection from the authorized person, the data were collected after receiving consent. The need, goal, methodology, and importance of the study were explained to participants verbally and in writing by the researchers. The participants fill out the questionnaire online. For data collection, permission was taken from an authorized institute person. Then, informed consent was signed by each participant. Their anonymity and confidentiality will be maintained. No one was forced to data collection.

The questionnaire is prepared with the help of literature. This questionnaire is divided into four sections, exploring different aspects of nursing students' perceptions, experiences, preferences, and recommendations concerning active learning strategies. The initial section collects fundamental demographic information, including the participants' age, gender, and year within the nursing program. Additionally, it inquires whether they have engaged in any active learning activities during their nursing education.

In the second section, participants are prompted to rate a series of statements on a 5-point Likert scale, ranging from "Strongly Disagree" to "Strongly Agree." These statements, totaling seven, seek to gauge the participants' level of perception regarding various aspects of active learning strategies, encompassing elements such as their perceived impact on understanding complex nursing concepts, engagement compared to traditional lectures, promotion of critical thinking skills, retention and application of knowledge, encouragement of teamwork, and more profound connection with the subject matter. The third section investigates the participants' experiences with specific active learning strategies. Here, participants are asked to

identify which strategies they have encountered during their nursing education and to rate the frequency of active learning strategy implementation in their courses.

The fourth section delves into participants' preferences and suggestions concerning active learning. Moreover, participants are prompted to share their perspectives on how nursing educators could enhance the incorporation of active learning strategies.

4 MSN professionals with their master's in education were asked to review the questionnaire to determine its content validity. Based on comments and correction views, the questions' design relevance and semantic clarity were acceptable, and recommendations from the qualified judges. The CVI of total relevance is 0.925, and the total clarity is 0.900. The scale items were divided into perception items and experience items. Data was analyzed through "SPSS" version 26, frequency % percentage was used for demographic data, and the level of perception and experience regarding active learning strategies were calculated.

RESULT

Table 1 shows the result of demographic variables like age, gender, year of study, and how many participants participated in active learning activities during their nursing education. Off the total participants. 93.1% (n= 81) were aged between 18-24 years, 5.7% (n=5) were aged between 25-30 years, and 1.1% (n=1) were aged between 31-36 years. Concerning gender, 80.5% (n=70) were males and 19.5% (n=17) were females participated in the study. Out of the total participants, 31% (n=27) of students from 1st year. 14.9% (n=13) from 2nd year. 11.5% (n=10) of student from 3rd year. And 42.5% (n=37) of students from 4th year. Concerning, 85.1% (n=74) of participants participated in any active learning activities during their nursing education. 14.9% (n=13) did not participate in any activities during their nursing education.

Table 1: Demographic Characteristics of the Study Participants

Variables	Frequency	Percent				
Age						
18-24	81	93.1				
25-30	5	5.7				
31-36	1	1.1				
Gender						
Male	70	80.5				
Female	17	19.5				
Year of Nursing Students						
1 st Year	27	31.0				
2 nd Year	13	14.9				
3 rd Year	10	11.5				
4 th Year	37	42.5				
Have you participated in any active learning activities during your nursing education?						
Yes	74	85.1				
No	13	14.9				

Table 2 Shows Nursing student perceptions regarding active learning strategies. The perception of students about active learning strategies enhances their understanding of complex nursing concepts. 32.2% (n=28) of students are strongly disagree. 16.1% (n=14) of students are disagreeing. 11.5% (n=10) of students are neutral. 40.2% (n=35) of students are agree. The student perceives active learning activities as more engaging than traditional lectures. 1.1% (n=1) of students are disagree. 51.7% (n=45) of students are neutral. 47.1% (n=41) of students are strongly agree. The students

perceive active learning activities as more engaging than traditional lectures. 1.1% (n=1) of students are strongly disagree. 1.1(n=1) of students are disagree. 54%(n=45) of students are neutral, and 43.7% (n=38) of students are strongly agree.

The Nursing student's perception of active learning helps me retain and apply knowledge more effectively. 1.1% (n=1) of students were disagree. 43.7(38) of students are neutral, and 55.2% (n=48) of students are strongly agree. Nursing students perceive that active learning strategies encourage teamwork and collaboration among nursing students. 1.1% (n=1) of students were disagree. 47.1%(n=41) of students were neutral, and 51.7%(n=45) of students were strongly agree.

Nursing perception of active learning activities facilitates a deeper connection with the subject. 2.3%(n=2) of students were disagree. 39.1% (n=34) of students were neutral, and 58.6% (n=51) were strongly. Nursing students believe active learning should be incorporated into more aspects of nursing education. 1.1% (n=1) of students were disagree. 43.7% (n=38) of students were neutral, and 55.2% (n=48) of students were strongly agree

Table 2: Perceptions of Active Learning Strategies

S NO	Statement	Strongly Disagree	Disagree	Neutral	Strongly Agree	Agree
1.	Active learning strategies enhance my understanding of complex nursing concepts.	32(28)	16.1(14)	11.5(10)	0(0)	40.2(35)
2.	Active learning activities are more engaging compared to traditional lectures.	0(0)	1.1(1)	51.7(45)	47.1(41)	0(0)
3.	Active learning strategies promote critical thinking and problem-solving skills.	1.1(1)	1.1(1)	54.0(47)	43.7(38)	0(0)
4.	Active learning helps me retain and apply knowledge more effectively.	0(0)	1,1(1)	43.7(38)	55.2(48)	0(0)
5.	Active learning strategies encourage teamwork and collaboration among nursing students.	0(0)	1.1(1)	47.1(41)	51.7(45)	0(0)
6.	Active learning activities facilitate a deeper connection with the subject matter.	0(0)	2.3(2)	39.1(34)	58.6(51)	0(0)
7.	I believe active learning should be incorporated into more aspects of nursing education.	0(0)	1.1(1)	43.7(38)	55.2(48)	0(0)

Table 3: Shows Nursing student experience regarding active learning strategies. What active learning strategies have you experienced in your nursing education? 2.3% (n=2) of student has experienced problem-based learning. 3.4% (n=3) of students have experienced case studies. 47.1% (n=41) of students have experienced simulation exercises. 22.9% (n=20) of students have experienced group discussions. 31.0% (n=27) of students have experienced role-playing activities. The student experience about how frequently are active learning strategies used in his nursing education.

32.2% (n=28) of students were says very frequently. 10.3% (n=9) of students say that frequently. 18.4%(n=16) of students are saying that occasionally. 33.3% (n=29) of students say that rarely. 5.7% (n=5) of students were says never. The nursing students' experience: Have you encountered any challenges or difficulties with active learning strategies. 46% (n=40) of students said that yes. 54% (n=47) of students say no.

Table 3: Experiences with Active Learning Strategies

Statement	Frequency	Percentage				
Which active learning strategies have you experienced in your nursing education?						
Problem-based learning	2	2.3				
Case studies	33	40.4				
Simulation exercises	3	3.4				
Group discussions	20	22.9				
Role-playing activities	27	31.0				
How frequently are active learning strategies used in your nursing courses?						
Very frequently	28	32.2				
frequently	9	10.3				
Occasionally	16	18.4				
Rarely	29	33.3				
Never	5	5.7				
In your opinion, what are the strengths of using active learning strategies in nursing education?						
Enhanced Critical Thinking	15	17.2				
Improved Skill Acquisition	27	25.5				
Increased Engagement and Retention	3	3.4				
Effective Teamwork and Communication	47	54.0				
Have you encountered any challenges or difficulties with active learning strategies?						
Yes	40	46.0				
No	47	54.0				

Table 4: Show the preferences and suggestions for active learning strategies. Students' preferences and suggestions about active learning over traditional lecture-based teaching. 83.9% (n=73) of students say yes.. 16.1 (n=14) of students say no. What types of active learning activities do you find most effective and enjoyable? 83.9 (n=73) of students were found in case studies. 16.1% (n=14) of students were found role-playing. How many nursing students believed that nursing education can improve the implementation of active learning strategies? 35.6% (n=31) of students say learning objectives. 13.8% (n=12) of students say effective facilitation. 17.2% (n=15) of students say continuous assessment and feedback. 3.4% (n=3) of students say they collaborate with peers. 24.1% (n=21) of students say preparation and planning. 5.7% (n=5) of students say students engagement strategies.

Table 4: Preferences and Suggestions

Statements	Frequency	Percentage				
Do you prefer active learning over traditional lecture-based teaching?						
Yes	73	83.9				
No	14	16.1				
What types of active learning activities do you find most effective and enjoyable?						
Group discussion	0	0				
Case Study	73	83.9				
Role-playing	14	16.1				
Peer teaching	0	0				
How do you believe nursing educators can improve the implementation of active learning						
strategies?						
Clear learning objective	31	35.6				
Effective facilitation	12	13.8				
Continues assessment and feedback	15	17.2				
Preparation engagement strategy	3	3.4				
Student engagement strategy	5	5.7				
Collaboration with peers	3	3.4				

DISCUSSION

Teaching-learning techniques make the most of learning possibilities. A lesson plan to achieve specific goals is sometimes called a teaching strategy. Furthermore, "teaching and learning methods have distinct implications for courses, occasionally leading to overburdening students (15).

The present findings show that all study participants were 18-36. Another study found slightly different results and showed that 74% of the participants were between 20 and 40 years of age (16)

It's also quite difficult for teachers to figure out which teaching technique would work best in a huge classroom. Moreover, no single teaching method works for every student because each kid learns differently. Thus, educators can motivate their students with a few teaching-learning techniques. Our institute employs a variety of teaching-learning techniques (15). Through active learning, a student can develop their independence and self-control. This will result in applying different learning methodologies and particular cognitive skills that help identify significant information, analyze facts, and compare and relate them to previously learned material (17). Therefore, this study examines nursing students' perceptions and experiences regarding using active learning strategies.

Present findings show that 46% faced challenges or difficulties with active learning strategies. Another study found that students face challenges in active learning and demonstrated that Because of their inability to convey a specific level of criticality in some debates or because they are ignorant of the active learning methodology itself, students are not happy with its use (18).

Current findings show that 40.4% responded that we experienced simulation exercises in our nursing education. In this regard, the study suggested that fostering multidisciplinary training, clinical reasoning, communication, self-assurance, autonomy, critical and reflective learning, creativity, and the articulation of cognitive, psychomotor, and affective qualities through simulation is feasible. This approach prioritizes patient safety and is associated with enhanced clinical results and professional efficacy (19).

Moreover, the study found that 43% strongly agreed that active learning strategies promote critical thinking and problem-solving skills. Similarly, another study found that critical thinking was substantially more prevalent in the active group compared to the traditional group (20).

This study found that 14% prefer active learning over traditional lecture-based teaching. In this regard, a study suggested that the teacher-centered method, known as the "traditional teaching approach," encourages surface-level learning and is based on passive knowledge transfer. It frequently uses evaluation mechanisms that incentivize students to replicate facts even when they don't fully grasp the subject. A study showed that students dislike traditional teaching techniques like lectures since they don't foster growth, motivation, or intellectual growth (21).

Current findings show that 51.7% strongly agreed that active learning strategies encourage teamwork and collaboration among nursing students. Similarly, another study found that Active teaching techniques can improve student assessment results by developing subject-specific knowledge and skills and broader skills and capacities like communication and teamwork (22).

CONCLUSION

In conclusion, the survey results demonstrate an explicit and robust endorsement of active learning strategies among nursing students. Most students strongly agree that active learning enhances their understanding, engagement, and knowledge retention and fosters collaboration. They also strongly prefer active learning over traditional lectures, with case studies being their preferred method. Additionally, a substantial portion believes integrating active learning into nursing education through clear learning objectives can improve its effectiveness. These findings highlight the widespread recognition of the positive impact of active learning on nursing education, affirming its role in enhancing comprehension and engagement among students. Provide training and resources to educators to effectively implement active learning strategies, ensuring they align with clear learning objectives.

References

- Pivač S, Skela-Savič B, Jović D, Avdić M, Kalender-Smajlović S. Implementation of active learning methods by nurse educators in undergraduate nursing students' programs

 –a group interview. BMC nursing. 2021; 20:1-10.
- 2) Wijaya H, Darmawan IPA, Setiana SC, Helaluddin H, Weismann ITJ. Active reconnecting learning strategies to increase student interest and active learning. Indonesian Journal of Instructional Media and Model. 2021;3(1):26-37.
- 3) Herwandi H, Kaharuddin A. Exploration of the Influence of Learning ELPSA (Experiences, Language, Pictures, Symbols, and Applications) on the Understanding of Mathematical Concepts. Indonesian Journal of Instructional Media and Model. 2020;2(2):113-25.
- 4) Hart S. Examining Active Learning in an Online Synchronous Train-The-Trainer Mathematics Professional Development Initiative. 2023.
- 5) Arjomandi A, Seufert JH, O'Brien MJ, Anwar S. Active teaching strategies and student engagement: A comparison of traditional and non-traditional business students. 2018.
- 6) Harris N, Bacon CEW. Developing cognitive skills through active learning: a systematic review of health care professions. Athletic Training Education Journal. 2019;14(2):135-48.
- 7) Aijaz U, Bano S, Athar A. Educational Jigsaw Take Shapes At Balochistan. Pakistan Journal of Educational Research. 2022;5(1).

- 8) Howell RA. Engaging students in education for sustainable development: The benefits of active learning, reflective practices and flipped classroom pedagogies. Journal of Cleaner Production. 2021;325:129318.
- 9) Shams F, Hashmi A. Effect of Jigsaw Method on Students' research Anxiety: A Case of Public University in Pakistan. Harf-o-Sukhan. 2022;6(1):181-7.
- 10) Ullah I, Tabbasum R, Iqbal K. Effectiveness of Cooperative Learning (Jigsaw Technique) on the Knowledge Level of Cognition in the Subject of English at Secondary Level. Journal of Educational Research and Social Sciences Review (JERSSR). 2021;1(3):47-56.
- 11) Jabeen S, Kalsoom T, Khanam A. Cooperative Learning Instructional Method: Influence on Secondary School Students' academic Performance in Physics. International Journal of Management. 2020;11(08).
- 12) Gleason BL, Peeters MJ, Resman-Targoff BH, Karr S, McBane S, Kelley K, et al. An active-learning strategies primer for achieving ability-based educational outcomes. American journal of pharmaceutical education. 2011;75(9).
- 13) Major C. Collaborative learning: A tried and true active learning method for the college classroom. New directions for teaching and learning. 2020;2020(164):19-28.
- 14) Seshan V, Matua GA, Raghavan D, Arulappan J, Al Hashmi I, Roach EJ, et al. Case study analysis as an effective teaching strategy: Perceptions of undergraduate nursing students from a middle eastern country. SAGE Open Nursing. 2021;7:23779608211059265.
- 15) Bibi A, Ahmed A, Lecturer S, Murad H. Different Teaching-learning strategies have their advantages and disadvantages. Xi'an Dianzi Keji Daxue Xuebao/Journal of Xidian University. 2022; 16:531.
- 16) Butler KW, Veltre DE, Brady D. Implementation of Active Learning Pedagogy Comparing Low-Fidelity Simulation Versus High-Fidelity Simulation in Pediatric Nursing Education. Clinical Simulation in Nursing. 2009; 5(4):e129-e36.
- 17) Gergorić T. Teachers' assessment of active learning in teaching Nature and Society. Economic research-Ekonomska istraživanja. 2020; 33(1):1265-79.
- 18) Ghezzi JFSA, Higa EdFR, Lemes MA, Marin MJS. Strategies of active learning methodologies in nursing education: an integrative literature review. Revista Brasileira de Enfermagem. 2021;74.
- 19) Paige JT, Terry Fairbanks RJ, Gaba DM. Priorities Related to Improving Healthcare Safety Through Simulation. Simulation in healthcare: journal of the Society for Simulation in Healthcare. 2018; 13(3S Suppl 1):S41-s50.
- 20) Shin H, Sok S, Hyun KS, Kim MJ. Competency and an active learning program in undergraduate nursing education. Journal of advanced nursing. 2015; 71(3):591-8.
- 21) Sanaie N, Vasli P, Sedighi L, Sadeghi B. Comparing the effect of lecture and Jigsaw teaching strategies on the nursing students' self-regulated learning and academic motivation: A quasi-experimental study. Nurse Education Today. 2019; 79:35-40.
- Sinnayah P, Rathner JA, Loton D, Klein R, Hartley P. A combination of active learning strategies improves student academic outcomes in first-year paramedic bioscience. Advances in physiology education. 2019; 43 (2):233-40.