

PEER TEACHING STRATEGY AND ITS EFFECT ON SELF- EFFICACY, COLLABORATIVE BEHAVIOR, AND PERFORMANCE OF NURSING STUDENTS AT NURSING COLLEGE, KING KHALID UNIVERSITY

ALQARNI AIDA SANAD¹, SAHAR HAMDY EL-SAYED², KAWTHER ELTAYEB AHMED³, ENAS M BASSUNI^{4*}

¹Assistant professor of Medical Surgical Nursing Department, College of Nursing, ABHA, King Khalid University, KSA

²Prof. of Nursing Administration Department, College of Nursing, ABHA, King Khalid University, KSA

³Assistant professor of community Health Nursing Department, College of Nursing, ABHA, King Khalid University, KSA

^{4*}Lecturer of Nursing Administration Department, College of Nursing, ABHA, King Khalid University, KSA, also Affiliated to Faculty of Nursing, Cairo University, Egypt, Email: ebsuone@kku.edu.sa

Abstract

Background: The peer-teaching approach is a planned education model that increases learner confidence, self-efficacy, reduces stress and anxiety, and aids in the development of higher level personal and professional skills such as empathy, communication, organization, leadership, decision making, and cooperation.

Aims: to assess the effect of peer teaching strategy on self- efficacy, collaborative behavior, and performance of nursing students.

Methods: The study was conducted using a quasi-experimental design at the College of Nursing, ABHA, King Khalid University, Kingdom of Saudi Arabia. A simple random sample of 36 fourth-year nursing students was used. Data was collected using six instruments: student's clinical evaluation checklist, knowledge evaluation form, general self-efficacy scale, the collaborative behavior scale shortened, clinical teaching preference questionnaire, and peer teaching experience questionnaire.

Results: The majority and slightly more than half of students who were taught a selected unit by peer teaching received excellent plus grades in knowledge and practice, compared to only a small percentage of those who were taught the other knowledge and clinical skills units by traditional lecture, and 75% of students who learned a selected topic by peer teaching had a high level of self-efficacy and collaborative behavior.

Conclusion: According to the findings of this study, this method is effective for increasing nursing students' self-efficacy, collaborative behavior, and performance. The study suggests incorporating this strategy into all nursing college curriculums, seminars, and training courses in order to change teaching staff attitudes about the use of advanced teaching methods such as peer teaching.

Keywords: Collaborative Behavior, Nursing Students, Peer Teaching Strategy, Performance, Self-Efficacy

INTRODUCTION

Nursing education is a training program that includes both theoretical and practical teaching and learning. Theoretical and clinical training should be undertaken concurrently in nursing education to get the desired outcomes. Clinical training accounts for fifty of all nursing education. Nursing laboratories are places where students can practice their skills. It helps students reduce anxiety, improve communication skills, and blend theory and practice [1]. Peer teaching is a type of clinical practice paradigm that involves nursing students supporting and teaching one another while working in pairs without the intervention of nurse educators. Peer learning implies that students working in pairs are given the opportunity to think critically, participate, reverse, problem-solve, and assert their statehood [2]. It is a pedagogical model established by social learning theorists such as [3]. It focuses on the premise that experience, perception, and knowledge are developed and progressed in human relationships. Otherwise, students in nursing education play a role of pair teachers and pair students. They are encouraged for construct educational plan that include particular objectives relating to a proficiency or topic, specify pertinent sources, and then implement to teeny students' groups. That prepares students for future role as teachers, makeup self-esteem, and improves practical skills and attitudes. In terms of teaching staff and faculty, peer learning may decrease their overwork and allow further chances to watch and introduce

background to their students on their practice [6]. Additionally, through engaging in active learning, learners' confidence, self-efficacy, and clinical knowledge are increased [7-9]. Working together and supporting one another has been shown to reduce stress and anxiety while also increasing personal and professional abilities such as empathy, communication, teamwork, organization, leadership, decision-making, and cooperation [10]. Self-efficacy is belief of individual's in their capacity to arrange and carry out an action [13]. Furthermore, excellent self-efficacy can improve one's quality of life [15]. The presence of a successful experience, the experience of others, verbal persuasion, and available resources are all factors that might influence students' levels of self-efficacy. Furthermore, those learning approaches would influence levels of students' self-efficacy [16]. The term cooperation comes from the Latin word cooperate, which means to work with another person or group to achieve a goal [17]. Training is required for collaboration to be effective in health care, hence it is critical that core competence collaboration is included in nursing education, both in practical and theoretical courses, to learn how to work continuously in healthcare teams. Peer learning may be a beneficial learning method for educating nursing students in this competency [19]. Academic achievement is described as a student's subjective assessment of their marks, stated in terms such as excellent, very good, good, fair, and poor, and it is quantified using a student's grade point average [20]. Active participation is essential for students' academic progress. Academic success for students is dependent on active engagement in the education plan, attaining the high grads, and improving right roles in a certain scope [22].

SIGNIFICANCE OF THE STUDY

The ABHA College of Nursing designed the program to undergraduate four years after general secondary school at the eleven-level enrolled nursing administration course that provides students with skills and knowledge of basic concepts and principles of nursing administration to apply the role of head nurse in various health organizations. The course includes both theoretical lectures and practical sessions. Lectures are learned by nurse educators, however clinical training is frequently given by clinical instructors to groups of up to 18 students, making directions and demonstration of each student's practical abilities unobservable. To address this issue and increase students' active learning, the researchers began including the peer teaching technique into their course. This may help pupils. This may help students in the future to take on the role of teacher and improve their abilities, knowledge, and attitudes that share in perceive a high level of self-efficacy. Despite these significant facts about peer teaching, no previous studies have been conducted in the Kingdom of Saudi Arabia to integrate this strategy in nursing education. The condition introduces a type of natural experiment to using peer teaching strategy in nursing education and assessing its effect on self-efficacy, collaborative behavior, and nursing students' performance

RESEARCH HYPOTHESIS

- The nursing students who received their education through peer teaching reported having high levels of self-efficacy and cooperative behavior.
- The students who learned certain units through peer teaching will perform much better on knowledge and practice score than in other units learned through classical lecture.

SUBJECT AND METHODS

RESEARCH DESIGN

A quasi-experimental design was used to achieve the aim of the study. To accomplish the study's aim, a quasi-experimental design was employed.

SETTING

This study was conducted at the College of Nursing, ABHA, King Khalid University, Kingdom of Saudi Arabia.

SUBJECTS

A convenience sample from 4th year nursing students (n=36) out from 41 in the level eleven they enrolled in the nursing administration course in the academic year 2022/2023, and who agreed to participate in the study. The highest percentage of nursing students were in the age group more than 22 years old with mean age 23 years (75%), and all nursing students were female and single. A simple random sample of 36 from fourth-year nursing students (out of 41 total) who voluntarily acceptance of the sample in the study and were enrolled in the nursing administration course at

level eleven during the academic year 2022-2023. The majority of nursing students (75%), who belonged to the group over the 22 years, with a mean age of 23 and nursing students were all female and single.

TOOLS OF DATA COLLECTION

Data for this study were gathered using six different instruments.

Tool I- Student's Clinical Evaluation Checklist was developed by the researchers based on pertinent background [23-24] to evaluate how well nursing students were practicing the steps of various skills taught in the practical part of the nursing administration course and applied in the clinical setting.. The tool asked about student's name and age, and covered the following three areas: (1) Kardex: is the first topic and has 32 steps. Time schedule (roster) is the second topic and has 29 steps. Reporting and recording is the third topic and has 66 steps. Each step had to be marked as "done" or "not done," with a score of 1 or 0 to correspond with the nursing college's grading scale, ABHA, King Khalid University, utilized the point-based system of practice: Fail (<60%), Pass (60 -<65%), Pass+ (65 -<70%), Good (70-<75%), Good +(75- <80), Very good (80-<85%), Very good +(85-< 90), and Excellent (90- <95%), Excellent+(95-100).

Tool II- Knowledge Evaluation Form: This form was created by the researchers based on scientific background [23-24] to assess nursing students' knowledge of the same three units Kardex, time schedule, reporting, and recording-in the clinical section of the nursing administration course namely; kardex, time schedule, reporting and recording. It includes 50 multiple choice questions. 1 point for the right answer and 0 points for the false one using same practical point grading system.

Tool III- General Self-Efficacy Scale (GSES): was created by [25] to evaluate nursing students' levels of self-efficacy. It is a 4-point Likert scale that include 10 items. Scores range from not at all true (1) to exactly true (4), Scores varied from 10 to 40 and ranged from not at all true (1) to exactly true (4). Self-efficacy was rated as high if it reached 75% or higher and low if it fell below that mark.

Tool IV- The Collaborative Behavior Scale Shortened (CBSS): was created by [26] to evaluate nursing students' collaborative behavior. Eight items on a 4-point Likert-type scale, ranging from rarely (1) to nearly always (4), Collaborative behavior was rated as high if the score was 75% or higher and poor if it was less than 75%.

Tool V- Clinical Teaching Preference Questionnaire (CTPQ): was created by [27] to evaluate nursing student's preference for peer teaching strategy. Eleven statements on a five-point Likert scale, ranging from "strongly agree" (5) to "strongly disagree (1)" Three types of replies were created using a dichotomous scale: "strongly agree/agree," "strongly disagree/disagree," and "uncertain."

Tool VI- Peer Teaching Experience Questionnaire (PTEQ): was created by [27] to evaluate the experience nursing students had while using the peer teaching technique. It consists of fourteen statements with a five-point Likert scale, ranging from strongly agree"(5) to "strongly disagree (1)" Three types of replies were created using a dichotomous scale: "strongly agree/agree," "strongly disagree/disagree," and "uncertain".

CONTENT VALIDITY AND RELIABILITY

A panel of specialists who judged the tools' clarity, relevance, and thoroughness determined the content validity for all data gathering methods. To evaluate the consistency of findings toward items within a test, internal consistency reliability using Cronbach's alpha was established. The student's clinical evaluation checklist, knowledge evaluation form, general self-efficacy scale, the collaborative behavior scale shortened, clinical teaching preference questionnaire, and peer teaching experience questionnaire all had Cronbach's alpha coefficients of 0.76, 0.86, 0.90, 0.97, 0.75, and 0.86.

PROCEDURE

The researchers held a one-day workshop before beginning their learning sittings with the nursing students, it served to introduce the participants to the advantages of peer teaching, its methods, and the role of the tutor. The three essential practical proficiency that nursing students must master during the clinical component of the nursing administration course were chosen by the

researchers. These include the kardex, a time schedule, reporting, and recording. Three skill labs with a total of 36 students each were given subgroups of about 12 students each. To apply the peer teaching procedure, the subsection in each lab was additionally divided to three smaller groups of four students, each with a peer instructor and three students for implementation the peer teaching method into action. At skill lab, with the observation of researchers, all students were required to choose one clinical practical skill that she could readily execute and permitted to develop its format in accordance with a checklist. This process was recurrent until the student perfects the chosen skill. The student next created a lesson plan with precise, measurable goals and listed the resources appropriate for peer teaching. The researchers created a training program and prepared students to serve as peer teachers for their peers. All students had twice opportunities to serve as a peer teacher. Clinical sitting began at 10.30 till 12.30 AM after the theoretical session, which ran from 9 AM to 10 AM. Through the use of the first, second, third and four data collection instruments, the impact of peer teaching was assessed. The CTPQ and PTEQ instruments were also used to evaluate the students' opinions regarding the peer teaching strategy. Data was gathered for three months, from December 2022 to the end of February 2023.

PILOT STUDY

A pilot study was conducted on 10% of nursing students (4) to evaluate the questions' clarity and estimate the time required to complete the data collection instruments. The students were a part of the main study sample with no modifications made.

ADMINISTRATIVE AND ETHICAL CONSIDERATIONS

The study's permission to proceed was Permissions were received from the dean of the nursing college and King Khalid University ethical committee and the after explaining the nature of the study to them. Their approval number is ECM#2021-5610 all nursing students who participated in the study have received written explanations of the study's nature and objectives. They were given the choice of participating or not, and they were knowing that they might drop out from the study at any time.

STATISTICAL ANALYSIS

The collected data were organized, tabulated, and statistically analyzed using SPSS software (Statistical Package for the Social Sciences, version 19, SPSS Inc. Chicago, IL, USA). With the aid of SPSS software (Statistical Package for the Social Sciences, version 19, SPSS Inc. Chicago, IL, USA), the gathered data were arranged, tabulated, and statistically analyzed.

RESULTS

Table 1: percentages of nursing students' knowledge grades in units taught by peer teaching and traditional lecture (n=36)

Knowledge Grades	Unit of knowledge taught by peer teaching (n=36)		Unit of knowledge taught by lecture (n=36)		x ²	p-value
	No.	%	No.	%		
Excellent+	24	66.6%	1	2.8%	18.4	<0.001
Excellent	4	11.1%	2	5.6%		
Very good+	2	5.6%	15	41.6%		
Very good	3	8.3%	7	19.4%		
Good+	2	5.6%	6	16.7%		
Good	1	2.8%	5	13.9%		
Pass+	-	-	-	-		

According to Table 1, the majority of nursing students who were educated the knowledge unit with peer teaching received excellent+ grades (66.6%), while only 41.6% of those who were taught the other knowledge unit by traditional lecture received very good+ grades with a statistically significant differences p<0.001.

Table 2 shows nursing students' percentages of practice grades for clinical skills taught by peer teaching and traditional lecture (n=36)

Practice Grades	Clinical skills taught by peer teaching (n=36)		Clinical skills taught by lecture (n=36)		x ²	p-value
	No.	%	No.	%		
Excellent+	20	55.6%	1	2.8%		
Excellent	7	19.4%	1	2.8%		

Very good+	4	11.1%	3	8.3%	20.2	<0.001
Very good	3	8.3%	18	50%		
Good+	1	2.8%	7	19.4%		
Good	1	2.8%	6	16.7%		
Pass+	-	-	-	-		

According to Table 2, slightly more than half of nursing students who were taught clinical skills by peer teaching received excellent + grades (55.6%), whereas only 50% of those who taught the other clinical skills through traditional lecture received a very good grade with a statistically significant difference between them $p < 0.001$.

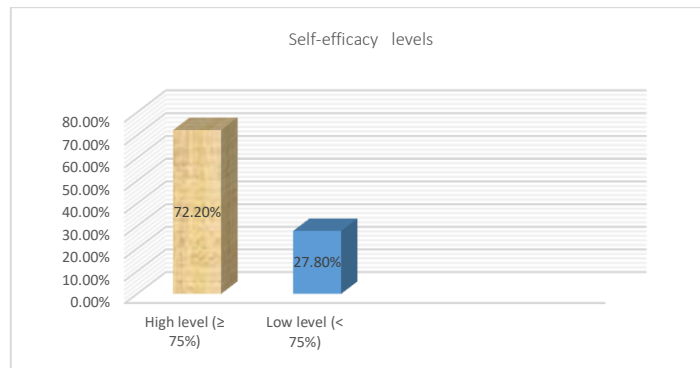


Figure 1: Total level of self-efficacy among nursing students who were taught using the peer teaching method (n=36).

Figure 1 shows that 72.2% of nursing students had a high level of self-efficacy.

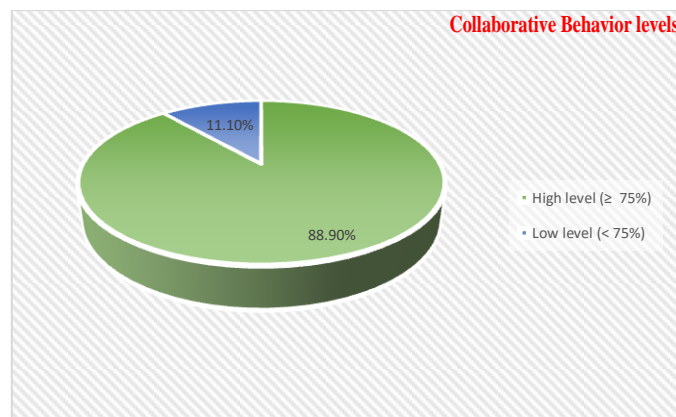


Figure 2: Total level of collaborative behavior among nursing students who were taught by peer teaching strategy (n=36)

Figure (2) shows that 88.9% of nursing students had a high level of cooperative behavior.

Table 3: Nursing students' preferences for peer teaching strategy (n=36)

Statements	Strongly agree/agree	
	No	%
.I learn to solve problems less from instructors than I do from my classmates	17	47.2%
My sense of responsibility is reduced more by learning clinical skills from my instructor than it is by learning from my peers	18	50%
Compared to my peers, I learn less from my instructor	17	47.2%
I don't feel any more comfortable asking my instructor for assistance than I do my peers	16	44.4%
My interaction and cooperation with other students rise more when I learn clinical skills from my peers than when I learn them from my instructor	19	52.8%
Compared to my instructor, the input I get from my classmates is more honest, trustworthy, and beneficial because it comes from a student's perspective	9	25%
I feel more self-confident and capable of performing independently because I am learning from my classmates rather than my instructor	8	22.2%
Compared to my instructor, I feel less anxious when practicing a nursing skill in front of my classmates	19	52.8%

Compared to my instructor, I can communicate more freely with my peers	15	41.7%
When I am practicing a nursing skill, my peers are more encouraging than my instructor is	6	16.7%
For nurses, teaching is a crucial responsibility.	20	55.6%

Table 3 demonstrates that slightly more than half of students agreed that teaching is an important role for nurses, that performing a nursing skill in front of their peers makes them feel less anxious, and that having their peers teach them clinical skills increases interaction and collaboration with other students (55.6%, 52.8%, and 52.8%, respectively).

Table 4: Nursing students' opinions on the experience obtained via peer teaching (n=36)

Statements	Strongly agree/agree	
	No	%
I was uncomfortable evaluating the skills of the other students.	19	52.8%
the peer teaching experience, which was time and effort well spent	17	47.2%
I now understand the guiding principles of teaching and learning	6	22.2%
I've honed my teaching skills for teaching clinical competencies.	8	44.4%
I felt at ease teaching to the other students	5	13.9%
I was first worried about the clinical session's demand for peer teaching.	9	25%
The peer teaching experience enabled me to consider on my previous knowledge	11	30.6%
The curriculum ought to offer more chances for peer teaching.	10	27.8%
Working with the other students was fun for me.	4	11.1%
Personal satisfaction resulted from the peer teaching experience.	7	19.4%
Teaching students and their peers is a professional obligation for nurses.	3	8.3%
What I've learned via this experience will aid me in my graduate nurse career	15	41.7%
After this experience, I would be more confident in teaching a clinical skill.	12	33.3%
For nurses, teaching is a crucial responsibility	20	55.6%

Table 4 shows that the majority of nurses (55.6%) agree that teaching is a vital responsibility, followed by students who are uncomfortable grading other students (52.8%). Only 8.3% of students feel that nurses have occupational obligation to learn students and their peers.

DISCUSSION

Because of the rapid breakthroughs and changes in informatics and technology, the keystone of nursing education must be student-centered, active teaching approaches that enable nursing students to engage actively and think critically [28]. Peer teaching was sunshine meaning for active learning systems that concentrate on immersed learning and is interpreted as "students learning from each other [29]". The aim of the current study is to evaluate the effect of colleagues teaching strategy on self-efficacy, collaborative behavior, and execution of nursing students engaged to nurse administration course. The present study's findings reveal that most of nursing students who were taught a selected unit by peer teaching received excellent plus grades in knowledge, compared to just a small number of those who were taught the other knowledge units by traditional lecture. This conclusion could be attributed to students' ability to explain things to other students in a way that their teaching staff do not. Furthermore, after gaining information and broad understanding from pre-lecture reading materials, students articulate their understanding through peer conversation. Students are actively engaged in the cognitive process during these talks because they must explain their replies to their classmates with supporting rationales. With the consistency of the study finding the previous research that stated that peer teaching fosters student's deep understanding and knowledge, such as the study of [31], which showed a significant improvement in selecting the correct answer of student's knowledge after peer teaching, and the previous studies of [32-34], which show that the plurality of nursing students who were taught by colleagues education received excellent knowledge scores. The finding of existing study showed that slightly more than half of nursing students who were taught the selected clinical skills through peer teaching have an excellent plus grade of practice, whereas half of nursing students who were taught the other clinical skills through traditional lecture have a very good grade. This finding could be attributed to nursing students' ability to demonstrate skills to other students in a way that their clinical instructor does not. Furthermore, the reference group is the most essential source of influence for a student. Although they had greater purse, like few groups of students. The findings are similar with previous study [35-37], which demonstrated that nursing students who were taught using a peer teaching strategy had a higher practice grade and an excellent mark than students who were taught using a traditional lecture method. The result found that the majority of nursing students who taught a selected unit by peer teaching had a high level of self-efficacy. The

explanation could be that peer learning can reduce anxiety about learning because the familiarity of peer students with this issues and can help them fit into clinical practice. This activate students desire they are part of a team, which increases their self-confidence and efficacy. This finding was supported by the study of [38-40], which found that peer tutoring increased students' self-efficacy. Collaboration is essential for peer learning. According to current study findings, the majority of nursing students who taught a selected unit by peer teaching had a high level of collaborative behavior. This could be because learning with a peer fosters a process of learning to enhance student repercussion and interchanging information, ideas, and experiences. This finding is agree with the findings of [2], who discovered that using a peer teaching technique increases nursing students' collaborative behavior. Regarding this study result, half to slightly more than half of nursing students taught by peer teaching think that learning is a vital role for staff nurses, that they feel comfort when demonstration with their peers, that they have more interaction and collaboration with other students, and that peer learning increases their sense of responsibility for learning. These findings could be attributed to the peer learning designing, which encourages students to improve their skills in organizing and planning learning activities, cooperating with others, providing, and receiving feedback, and evaluating their own learning. This contributes to students' increased sense of responsibility for learning. This finding is in the same line with the findings of previous researches [35-36], which found that the most of peer teaching students were minimal restless whilst performing lab skills, more straightforward and interacting with different students, and received sincere background, which increases their sense of responsibility for learning, interaction, and cooperation with other students, and they can communicate more honestly with their colleagues than with their clinical instructors. The present study found that slightly more than half of nursing students taught by peer teaching accept that teaching is a serious function for nurses and felt uncomfortable assessing other students. As a result, only a minority of them feel that staff have a occupational obligation for learn students and their colleagues. This could be represented with the amount of work students had to do regarding preparation for their roles as teachers, additionally being prepared for interaction actively throughout the discourse. These findings consistent with previous studies [41-43].

CONCLUSION

The findings of the study contribute to the body of evidence encouraging the use of peer teaching in nursing education. The strategy is advantageous for improving nursing students' knowledge and skill gaining for better practice. Furthermore, the majority of nursing students reported a high level of self-efficacy and collaborative behavior, in addition to reducing students' anxiety in executing skills and developing their ability to learn, both of which are essential components of their future nursing role.

RECOMMENDATIONS


As a result, the recommendation of this study is a greater use of this technique in all nursing school curriculums, with seminars and training workshops focused at shifting nurse educators' attitudes regarding extra innovative models of active learning, such as peer teaching. This might begin with a peer teaching training program. To validate the present study, replicate it with a great sample size. Future research should investigate the relationship between peer teaching and student academic outcome.


ACKNOWLEDGEMENT

The authors extend their appreciation to the Deanship of Scientific Research at King Khalid University for funding this work through General Research Project under grant number (RGP2/169/44/2023).

REFERENCES

- [1] Dikmen Y, AK B, Usta YY, Ünver V, Korhan EA, Cerit B, Ertem MY. Effect of Peer Teaching Used in Nursing Education on the Performance and Competence of Students in Practical Skills Training, *International Journal of Educational Sciences*. 2017; 16(1): 14-20.
- [2] Pålsson Y, Mårtensson G, Swenne CL, Ädel E, Engström M. A peer learning intervention for nursing students in clinical practice education: A quasi-experimental study. *Nurse Education Today*. 2017; 51: 81-87.
- [3] Bandura A. *Social foundations of thought and action: a social cognitive theory*. Englewood Cliffs: Prentice-Hall; 1986.

- 
- [4] Nelwati Abdullah KL, Chan CM. A systematic review of qualitative studies exploring peer learning experiences of undergraduate nursing students. *Nurse Educ Today*. 2018; 71: 185-92, <https://doi.org/10.1016/j.nedt.2018.09.018>.
- [5] Markowski M, Bower H, Essex R, Yearley C. Peer learning and collaborative placement models in health care: a systematic review and qualitative synthesis of the literature. *J Clin Nurs*. 2021; 30(11-12): 1519-41, <https://doi.org/10.1111/jocn.15661>.
- [6] Nelwati Abdullah KL, Chong MC, McKenna L. The effect of peer learning on professional competence development among Indonesian undergraduate nursing students: a quasi-experimental study. *J Prof Nurs*. 2020; 36(6): 477-83, <https://doi.org/10.1016/j.profnurs.2020.03.008>.
- [7] Choi JA, Kim O, Park S, Lim H, Kim JH. The effectiveness of peer learning in undergraduate nursing students: a meta-analysis. *Clin Simul Nurs*. 2021; 50: 92-101, <https://doi.org/10.1016/j.ecns.2020.09.002>.
- [8] Carey MC, Kent B, Latour JM. Experiences of undergraduate nursing students in peer assisted learning in clinical practice. *JBIS Database System Rev Implement Rep*. 2018; 16(5): 1190-219, <https://doi.org/10.11124/JBISRIR-2016-003295>.
- [9] Purwandari R, Afandi AT, Amini DA, Ardiana A, Kurniawan DE. The Overview of Self-Efficacy among Nursing Students. *Babali Nursing Research*, 2023; 4(1): 100-108.
- [10] Putri P, Tri Afandi A, Wahyu Fajaryanti D. Relationship of Leadership Style to Completeness of Filling in the Early Nursing Assessment in Hospital. *Nursing and Health Sciences Journal (NHSJ)*, 2021; 1(1): 64-66, <https://doi.org/10.53713/nhs.v1i1.19>
- [11] Sitepu DRS. Hubungan efikasi diri dengan prestasi belajar mahasiswa program studi ners dalam proses pembelajaran kurikulum berbasis kompetensi di Fakultas Keperawatan USU. 2016.
- [12] Merriam-Webster's Online Dictionary, Attribute. Retrieved February 18, 2019; from: <https://www.merriamwebster.com/dictionary/attribute>
- [13] Rosen MA, Diaz Granados D, Dietz AS, Benishek LE, Thompson D, Pronovost PJ, Weaver SJ. Teamwork in health care: Key discoveries enabling safer, high-quality care. *American Psychologist*, 2018; 73(4): 433-450.
- [14] Malik M, Parveen N. Self-Regulation and Academic Achievement: A Comparative Analysis of High And Low Academic Achievers. *Journal of Behavioral Sciences*. 2019; 29(2): 56.
- [15] Sun-Hee KIM. The Mediating Effect of Self-Regulated Learning on the Relationships among Emotional Intelligence, Collaboration, and Clinical Performance in Korean Nursing Students. *Journal of Nursing Research*, 2022; 30(3), e212.
- [16] Özkan A, Çamlica T, Kartal H. An analysis of the effect of nurse managers' toxic leadership behaviors on nurses' perceptions of professional values: A cross-sectional survey. *Journal of Nursing Management*, 2022; 30 (4): 973-980.
- [17] Yoder-Wise PS, Sportsman S. *Leading and Managing in Nursing E-Book*. Elsevier Health Sciences; 2022.
- [18] Schwarzer R, Jerusalem M. Generalized Self-Efficacy scale. In J. Causal and control beliefs; 1995: 35-37.
- [19] Stichler JF. The psychometric testing of the Collaborative Behavior Scale-Shortened (CBSS). Anonymous Sigma Theta Tau International Research Conference. 2013.
- [20] Iwasiw Carroll L, Goldenberg Dolly. Peer teaching among nursing students in the clinical area: effects on student learning. *Journal of advanced nursing*. 1993; 18(4): 659-668.
- [21] Şenyuva E, Akince EK. Is peer education an effective method of strengthening nursing education? *Journal of Human Sciences*. 2020; 17(1): 92-103.
- [22] Svellingen A, Røssland A, Røykenes K. Students as a facilitators: Experiences of reciprocal peer tutoring in simulation- based learning. *Clinical Simulation in Nursing*. 2021; 54: 10-16.
- [23] Cheung M, Wing JS. The Effect of Peer Instruction on Promoting Student Nurses' Learning in Medical-Surgical Nursing. *US-China Education Review*. 2016; 6 (12): 669-676.
- [24] Ahmad IM, Mohamed HE. The Effect of Peer Learning vs. Traditional Learning on Knowledge and Clinical Performance of Critical Care Nursing Students. *Journal of Education and Practice*. 2018; 9(8): 136-143.
- [25] Gholamhosein Z, Amir M, Mohammad R. Does peer education increase academic achievement in first year students? A mixed-method study. *Journal of Peer Learning*. 2018; 11(7): 89-98.
- [26] Bulut B. The Impact of Peer Instruction on Academic Achievements and Creative Thinking Skills of College Students. *International Journal of Educational Methodology*. 2019; 5(3): 503-505.
- [27] Sabaq AG, Farouk M, Ismail SS. Effect of Peer Teaching versus Traditional Teaching Method on Nursing Students Performance Regarding Pediatric Cardio pulmonary. *IOSR Journal of Nursing and Health Science*. 2016; 5(2):18-25.

- 
- [28] Essa RM, Al-Battawi JI, Abd El Salam DA, Ahmed HA. Effect of application of peer learning strategy on obstetric and gynecological nursing students' clinical performance. *Journal of Nursing Education and Practice*. 2018; 8(3):144-155.
- [29] Jassim T, Carlson E, Bengtsson M. Preceptors' and nursing students' experiences of using peer learning in primary healthcare settings: a qualitative study" *BMC nursing*. 2022; 21(1): 66.
- [30] Johnson JA, Battey D, Golan-Duncan R, Robert Z. The Effect of Online Cross-Age Peer Tutoring on Student Self-efficacy In Middle School Stem. Doctorate thesis, Graduate School of Education Rutgers, Rutgers. 2019; The State University of New Jersey
- [31] Shehadeh J, Hamdan-Mansour AM, Halasa SN, Hani MHB, Nabolsi MM, Thultheen I, Nassar OS. Academic stress and self-efficacy as predictors of academic satisfaction among nursing students. *The Open Nursing Journal*, 2020; 14(1): 92-99.
- [32] Alhalawany RM, Elhomosy SM, Fayed NM. Peer Learning Model for Critical Thinking and Self-Efficacy in Clinical Practice Education among Nursing Students and educational strategies for postgraduate medical education and Health Science. 2021; 5(2): 18-25, <http://doi.org/10.4038/jpgim.8264>
- [33] Wareing M, Green H, Burden B, Burns S, Beckwith M, Mhlanga F, Mann B. Coaching and peer assisted learning (C-PAL) the mental health nursing student experience, a qualitative evaluation. *Journal of psychiatric and mental health nursing*. 2018; 25(8): 486-495.
- [34] Sandvik AH, Karlsson P, Zetterman A, Eskilsson C. Nursing students' experiences of peer learning in a dedicated educational unit in municipal home healthcare: A phenomenological study. *Nordic Journal of Nursing Research*. 2021; 41(4): 224-232.
- [35] Fareed ME, Masry SE. Effect of Peer Teaching on Students' Outcome among Second Year Nursing Students. *International Journal of Novel Research in Healthcare and Nursing*. 2017; 4(3): 265-277