**Original Article**

# Facilitating Nursing Students' Clinical Education Continuity Utilizing Collaborative Critical Friendship Approach: A Quasi-Experimental Study

**Siham M. Al-Momani[1], Yahya W. Najjar[2], Maissa' T. Shawagfeh[1], Alaa A. Bsool[3], Abeer A. AL-Zayyat[3], Maha D. Hdaib[3], Munadel R. Al-Khatib[3], Ayat Da'seh[3]**

**[1]Associate Professor, [2]Assistant Professor, [3]Lecturer, Department of Allied Medical Sciences, Al-Balqa Applied University, Zarqa University College.**

**How to cite this article**: Siham M. Al-Momani, Yahya W. Najjar, Maissa' T. Shawagfeh et. al. Facilitating Nursing Students' Clinical Education Continuity Utilizing Collaborative Critical Friendship Approach: A Quasi-Experimental Study. International Journal of Nursing Education / Vol. 17 No. 1, January-March 2025.

**Abstract**

**Background:** Persisted clinical changes in response to COVID-19 obliged nursing education faculties to search for the best quality approaches in clinical nursing education. The critical friendship approach is utilized as a mutual peer learning approach aimed to help the nursing students who participated in the study to adequately achieve their curriculum objectives, and meet the policies and procedures inflected in clinical education without any additional staff, time, or cost. This study aimed to evaluate the potential of a new mutual peer learning clinical teaching-learning approach "critical friendship" approach.

**Methods:** the study design was a quasi-post test-only static–group design, and conducted in dedicated education units - Acute care units in two dedicated education practice placements, four units in each practice placement with 32-bed inpatient. First and second years of associate degree nursing students participated in this study. An innominate self-administered questionnaire was used to collect the data.

**Results:** The senior and junior students positively evaluated their experiences in participation in the piloted approach. Furthermore, implementing the piloted approach did not affect the policies and procedures of clinical education and the clinical training passed as it was supposed to be without any additional staff, time, or cost. The critical friendship approach made nursing students more self-confident, safe, relaxed, and more committed to the nursing code of ethics with a strong emphasis on privacy to self and others during clinical training.

**Conclusion:** It is essential to be actively engaged in such learning methodologies as the critical friendship approach. To form a higher quality and safer learning environment, further planning based on appropriate systematic evaluation, using larger groups of students and educators, the effect of the critical friendship approach on patient satisfaction and students' learning outcomes is recommended.

**Keywords:** clinical nursing education; dedicated education unit; undergraduate associate degree nursing program; critical friendship; senior students; junior students.

**Corresponding Author: Yahya W. Najjar,** Assistant Professor, Department of Allied Medical Sciences, Al-Balqa Applied University, Zarqa University College.

**E-mail:** yahya84@bau.edu.jo

**Submission date:** November 16, 2024 **Revision date:** December 20, 2024 **Published date:** February 15,2025

## Introduction

In the World Health Organization [1], a report listed that (59%) of health professionals in the global workforce are nurses. Also, an international survey carried out by the International Council of Nurses [2] where more than 130 nursing associations were involved, reported increasing numbers of applications to nursing schools. The widespread educational disruption and delays in nursing student graduation have been discussed by Weberg et al., [3] as one of the issues in nursing.

The importance of implementing appropriate nursing skills and taking care of nurses' attitudes and patient safety was highlighted by Lira [4]. Also, the unexpected changes in nursing education created challenges and increased the need to develop new approaches in nursing education was emphasized by Tolyat et al. [5]. Dewart et al. [6] announced the importance of the nurse educators' role in making difficult judgments toward the development and improvement of clinical nursing education and quickly addressing the holes in the clinical practicum which include patient safety, insufficient clinical area space, and student overcrowding. Frenk et al. [7] concluded that our ability to overcome the persistent challenges of the COVID-19 pandemic is dependent on how quickly society can implement successful strategies for education and health [7]. The important role of nurse educators in adopting appropriate measures to promote desirable and effective training to face the requirements of existing and upcoming nursing students to foster future nurses and their affiliated organizations has been discussed by Jackson et al. [8], and Morin [9].

Stress experienced by nursing students in their first admission to practice in the clinical area, and the role of faculties as peer support groups in reducing the students' stress through emotional and psychological support provided by their senior colleagues had been recommended by Al-Momani and Abdu [10]. The need to act quickly to implement alternative teaching and learning strategies to maintain academic continuity to face the challenges of COVID-19 had been recommended by Rasiah et al.[11]. Grafton et al. [12] emphasized the importance of innovative adaptable teaching-learning strategies to maintain academic continuity. Regardless of the expected role of nurse educators in developing approaches or models for maintaining nursing clinical education, Ghasemi et al., [13] claimed that little is known about the methods of promoting academic engagement in clinical activities, and highlighted the need to increase academic involvement of nursing students in clinical education, and they recommended for the researchers in the field of nursing clinical education to design and evaluate innovative strategies for the continuity and improvement of academic involvement in clinical settings. This directed us to initiate the piloted critical friendship approach presented in this study.

Costa and Kallick [14] set critical friends within a paradigm where learning occurs via regular dialogue and regular feedback trust and defined a critical friend as "a trusted person who asks provocative questions, provides data to be examined through another lens, offers critiques of a person's work as a friend, takes the time to fully understand the context of the work presented and the outcomes that the person or group is working toward". Swaffield [15] recognized that critical friendship, as a supportive, challenging relationship between professionals, is being used in professional development. In nursing education, critical friendship has been recommended as a strategy to enhance the development of self-confidence and facilitate a practice that acknowledges the importance of varied contexts and diverse perspectives [16,17]. Based on the above benefits of the critical friendship approach, it was chosen to be our research topic over other peer learning methods. Our study is based on experiential learning theory [18], which claims that the experience is at the center of the learning process. Adult nursing students can acquire new competencies and retain and apply their knowledge by "learn by doing" approach which consists of 4 distinct stages for learning: concrete experience, reflective observation, abstract conceptualization, and active experimentation.

## Background

All associate degree nursing programs in Jordan have one pathway under the campus of Al-Balqa Applied University: 72 credit hours curriculum, 60% of which are clinical courses provided over an average of 2 years. The graduate of the associate degree nursing program is supposed to pass a

comprehensive theoretical and clinical exam to be registered as an associate degree nurse.

In a systematic review carried out by Markowski et al. [19] entitled Peer Learning and Collaborative Placement Models, the results of the review demonstrated clear evidence for the benefits of peer learning during practice settings in health care, but the researchers announced the need to conduct more studies to evaluate the benefits and challenges of clinical models or approaches [19]. The obligatory regulations raised with COVID-19 which include decreasing the number of admitted patients to hospitals as well as decreasing the allotted number of nursing students in the clinical ward raised challenges for nursing education institutions. Also, to assure the provision of clinical education to undergraduate associate nursing students as required by their curriculum which necessitates student-centered education. Furthermore, no studies specific to peer learning or critical friendship in the clinical education of associate degree nursing students were conducted in Jordan or even worldwide and this is the gap that was found in our search in the literature about the critical friendship approach. Therefore, this study to answer the following questions:

1. Are there any incidental reports regarding student misconduct received from senior nursing students, nurse preceptors, or reported directly from patients or patients' families for the faculty member?
2. What are the experiences of the senior nursing students toward the critical friendship approach to determine the influence of the approach from their points of view?
3. What are the experiences of the junior nursing students toward the critical friendship approach to determine the influence of the approach from their points of view?

## Methods

*Design*

Since no measurements could be taken before starting the clinical training A quasi-posttest-only static–group design [20] was utilized. Nursing students' experience of participation in the critical friendship approach could not be evaluated initially by incorporating a pretest measure as they had no idea or experience with this type of peer learning method. However, the average performance of the students who participated in this study could be compared with other students who were not involved in the critical friendship approach.

*Sample*

To obtain a large number of senior participants, a purposeful sampling procedure was used. The minimum sample size required using G- power [21] with a medium effect size of 0.6 and power of 0.8 at α level of significance 0.05 (two-tailed) is 90 participants. In our study, 79 senior nursing students were approached, and 45 of them (57%) met the criteria for participation. Eight nurse preceptors were officially assigned to supervise the senior students in collaboration with faculty members. The criteria for senior students to participate in the study were a voluntary agreement to participate, willingness to help their junior colleagues, receiving training for adult health /clinical course at the assigned area for implementing the piloted approach and having a minimum of 70% of their previous achievements in nursing clinical courses. While a convenience sampling procedure for junior students was used, 80 junior nursing students, divided into four groups, were assigned to the practice area where the piloted approach was implemented, and all of them voluntarily agreed to participate in the study. Each group of juniors includes 20 students led by a faculty member who practiced for six hours one day per week for a minimum of 12 weeks for each student.

*Settings and procedure*

The settings where this study was implemented are dedicated educational acute care units. A dedicated education unit is "a health care unit where education, in addition to patient care, is a primary function" [22]. The piloted approach was implemented in two educational hospitals, with four dedicated education units in each hospital with 32- beds inpatients. The occupancy rate declined with commitment to the rules and regulations of COVID-19 from 90 % to 50%. Nurse preceptors are officially assigned to train, supervise the senior students' training, and share their clinical evaluations. A faculty member was assigned to train the junior students and collaborate with the nursing directorate, quality management

nursing team, infection control nursing team, and the nurse preceptors to ensure the seniors and junior nursing students' commitment to official rules and regulations of training, hospital policies and procedures, and patients and trainees safety. Senior students were supposed to help the junior students with a mutual critical friendship approach. Junior students were permitted to choose the senior critical friend and to change him if the junior was not satisfied with this mutual relationship by filling out a documented request to explain the rationale for change and delivered directly from the concerned student to the faculty member whose agreement is a prerequisite for the change.

*Data collection*

The instrument used in this study was a self-administered electronic innominate questionnaire that involved 11 items to evaluate the senior student's experience of participating in the critical friendship approach (Appendix A). To evaluate the juniors' experience, students were provided with a questionnaire that contained 11 items (Appendix B). Both questionnaires were written in Arabic language, validated by 3 academics specialized in the field of nursing education for face validity and some modifications were done according to their feedback after undergoing pilot testing (see acknowledgment). To evaluate the reliability of the instruments each of the two indexes was piloted in 10 of the students who share the same characteristics of the study sample but were not included in the study. Cronbach's alpha for index A and Index B was 0.86. and 0.82, respectively.

*Data analysis*

Submitting the filled questionnaire toward the end of the clinical practice period was accepted as a criterion to indicate the participation of both seniors and junior nursing students in the study sample. A total of 45 senior questionnaire forms and 78 junior questionnaires were received which indicate a response rate of 100% for senior and 97.5 % for junior group. Seniors' forms were evaluated to ensure that the participant met the selection criteria, if not the form was dismissed from data analysis. 45 of the total senior students (100%) met the selection criteria. The IBM Statistical Package for Social Science (SPSS) [23] was used to calculate the descriptive statistics in the form of means and standard deviation for each item, and the total appendix items mean in both appendices A and B were calculated.

## Results

The total sample in our study was 125 participants: 45 senior students and 80 junior students. The Scio-demographic data from seniors and junior participants reveals that all participants' ages in both seniors and juniors are limited between 20 – 22 years. The majority of participants were females 13 (29%) participants of the seniors were males. 27 (33%) of the juniors participants were males, it is important to note that only 33% of all Jordanian nursing students are males as permitted by the selection criteria. The first question of this study was "Are there any incidental reports regarding task error or student misconduct received from senior nursing students, nurse preceptors, or reported directly from patients or patients' families for the faculty member?". This question was addressed by reviewing the reports received from senior nursing students, nurse preceptors, or reported directly from patients or patients' families for the faculty member to find *that there is no incidental report regarding task error or student misconduct received all over the semester*. The second question of this study was "What are the experiences of the senior nursing students toward the critical friendship piloted approach as indicated by survey data completed by them to determine the influence of the piloted approach from their points of view?" To answer this question the senior nursing students' responses to items presented in Appendix (A) (*available upon request*) which was designed to evaluate the senior student's experience of participating in the critical friendship approach. Results presented in Table 1 show that the senior students evaluated their experience in participation in the piloted approach exceeded 90% in all the evaluated items.

**Table (1): The Means and Standard Deviations of Senior Students' Experiences of Participating in the Critical Friendship Approach**

| My participation in the critical friendship approach: | | | |
|---|---|---|---|
| | | **Mean%** | **SD** |
| 1 | Enhanced my ability in planning, implementing, and evaluating the work plan for myself and my critical friend, and other colleagues. | 95 | 0.28 |
| 2 | Enhanced my positive attitudes toward nursing profession. | 91 | 0.29 |
| 3 | Encouraged me to initiate some initiatives to improve the quality of myself and my colleagues training. | 95 | 0.21 |
| 4 | Improved my commitment and interest in clinical training. | 95 | 0.93 |
| 5 | Improved my awareness of problems faced the clinical teaching – learning process. | 95 | 0.95 |
| 6 | Improved my chance to communicate with my colleagues, patients, and patients' families. Also, the chance to communicate with hospital staff, preceptors and faculty member was improved. | 95 | 0.93 |
| 7 | Improved my communication skills in communicating with my critical friend, colleagues, patients, and patients' families. Also, communication with hospital staff, preceptors and faculty member was improved. | 95 | 0.93 |
| 8 | Improved my chance to demonstrate the nursing task appropriately. | 95 | 0.21 |
| 9 | Improved my punctuality and commitment to the scheduled time of arriving and leaving the practice area. | 95 | 0.29 |
| 10 | Improved my commitment to nursing code of ethics and conduct to reflect a role model characteristics for my friend, and others. | 95 | 0.21 |
| 11 | Improved my understanding to the importance of taking care of personal privacy of myself and all others. | 95 | 0.21 |

Table 2 shows the experiences of the juniors nursing students toward the critical friendship piloted approach as indicated by their mean answers in Appendix (B) (available upon request) which was designed to capture the juniors' evaluation of their experiences in participating in the piloted critical friendship approach. In evaluating their experiences in participating in the piloted approach the juniors' highest mean scores given to items evaluated the effect of the piloted approach on the participant's positive attitudes toward the nursing profession, commitment and interest in clinical training, a chance to demonstrate the assigned nursing task appropriately, feeling of self-confidence, relaxing, and safe, with a mean which exceeds of 90%, followed by the positive effect of the piloted approach on the juniors experiences to initiate some initiatives to improve the training for themselves and their colleagues, commitment to nursing code of ethics and conduct to reflect a role model characteristics for student's friends, and others, improved understanding to the importance of taking care of personal privacy to self and all others. The lowest mean score 75% given to item evaluate the effect of the piloted approach on the participant's punctuality and commitment to the scheduled time of arriving and leaving the practice area.

**Table (2): The Means and Standard Deviations of juniors' Students' Experiences of Participating in the Critical Friendship Approach**

| My participation in the critical friendship approach: | | | |
|---|---|---|---|
| | | **Mean%** | **SD** |
| 1 | Enhanced my positive attitudes toward nursing profession. | 95 | 0.21 |
| 2 | Encouraged me to initiate some initiatives to improve the quality of myself and my colleagues training. | 90 | 0.29 |
| 3 | Improved my commitment and interest in clinical training. | 95 | 0.21 |
| 4 | Improved my awareness of problems faced the clinical teaching – learning process. | 90 | 0.29 |
| 5 | Improved my chance to communicate with my colleagues, patients, and patients' families. Also, the chance to communicate with hospital staff, preceptors and faculty member was improved. | 90 | 0.29 |
| 6 | Improved my communication skills in communicating with my critical friend, colleagues, patients, and patients' families. Also, communication with hospital staff, preceptors and faculty member was improved. | 90 | 0.29 |
| 7 | Improved my chance to demonstrate the assigned nursing task appropriately. | 95 | 0.21 |
| 8 | Improved my feeling of self-confidence, being relax, and safe. | 95 | 0.21 |
| 9 | Improved my punctuality and commitment to the scheduled time of arriving and leaving the practice area. | 75 | 0.41 |
| 10 | Improved my commitment to nursing code of ethics and conduct to reflect a role model characteristics for my friend, and others. | 90 | 0.29 |
| 11 | Improved my understanding to the importance of taking care of personal privacy of myself and all others. | 90 | 0.29 |

## Discussion

Facilitating nursing students' clinical education continuity and generating solutions to overcome the limitations that arise with COVID-19 the goal of this study it runs with the trends highlighted by nursing researchers [9]. Also, the critical friendship approach as one of the coaching techniques where students learn from each other's experiences had been suggested by Weberg et al.,[3]. The importance of nursing students' evaluation of educational approach as they are partners in the educational process, and their points of view are major elements highlighted by Elldrissi et al.,[24]. The results of this study are consistent with other studies which indicated that collaboration is the key to peer learning, peer support was effective in relieving the students' clinical stress and enhanced psychomotor skill development [25,26].

In the dedicated education unit where the current study utilizing the critical friendship piloted approach was implemented as an incidental innovative clinical teaching-learning strategy, peer learning was recommended as a solution in case of resource scarcity in the clinical nursing practice settings [27,28].

Both senior and junior nursing students evaluated their experiences in participation in the piloted critical friendship approach in a total mean evaluation which almost exceeds 90%. The results of this study aligned with the benefits of the peer learning approach confirmed by Markowski et al. [19] . After 47 nursing studies that were carried out over ten years 2010 – 2020 reviewed to evaluate the peer learning approach. Markowski et al. [19] confirmed that any peer learning is beneficial in supporting students' confidence and teamwork skills, and concluded that any form of collaborative placement model requires careful planning and continuous preparation for staff and students. The high response rate of both groups; seniors and juniors which reached 100% could be attributed to the positive interest of both seniors and

juniors groups of participants. The lowest mean score of 75% given to the item that evaluated the effect of the piloted approach on the junior participants' punctuality and commitment to the scheduled time of arriving and leaving the practice area could be attributed to the attitude measured by the item which reflects personal trait and commitment to clinical practice policy and procedure rather than the presence of the critical friend.

## Conclusion and recommendations

The critical friendship approach was utilized as a mutual peer learning approach aimed to maintain nursing students' clinical education where senior nursing students supervised by faculty members in collaboration with the nursing preceptors practice to fulfill the requirements of their last undergraduate clinical course.

The senior students were supposed to provide help in the form of critical friendships to faculty-led groups of juniors from the same university admitted to clinical practice for the first time. The senior and junior associate nursing students positively evaluated their experiences in participation in the piloted approach. Furthermore, implementing the piloted approach did not interfere with the policies and procedures of clinical education, and the clinical training passed as it was supposed to be without any additional staff, time, or cost. The critical friendship approach made both junior and senior nursing students have positive attitudes toward the nursing profession, commitment and interest in clinical training, and have a better chance to demonstrate the assigned nursing task appropriately, feeling of self-confidence, being more relaxed, and safe, In addition, they had more commitment to nursing code of ethics and reflected a role model for their friends, and others, improved understanding to the importance of taking care of personal privacy to self and others.

Even it is essential to be actively engaged in such learning methodologies as the critical friendship approach, to form a higher quality and safer learning environment. Further planning based on appropriate systematic evaluation, using larger groups of students and educators, and the effect of the critical friendship approach on patient satisfaction and students' learning outcomes are recommended.

Our study had limited to that data was collected only from the students in two practice areas, the risk of selection bias due to using a quasi-posttest-only static group design, and some publications with relevant data may have been not reached. The authors' implications from the study results employ critical friendship as an important peer relationship fostering clinical education through which students learn from each other experiences

**Ethical Clearance:** Permission was requested and approval was obtained from the Faculty of Health Sciences' Research Ethics Committee of Al-Balqa Applied University **(IRB- 26/3/2/124/2023).**

**Declaration of interest:** None.

**Funding source:** Nil

## References

1. World Health Organization. State of the world's nursing 2020: investing in education, jobs and leadership. https://www.who.int/publications/i/item/9789240003279 (2020).
2. International Council of Nurses. Nursing Education and The Emerging Nursing Workforce in COVID-19 Pandemic. AJN, Am. J. Nurs. 62, 120 (2021).
3. Weberg, D., Chan, G. K. & Dickow, M. Disrupting Nursing Education in Light of COVID-19. Online J. Issues Nurs. 26, (2021).
4. Lira, A. L. B. de C., Adamy, E. K., Teixeira, E. & da Silva, F. V. Nursing education: challenges and perspectives in times of the COVID-19 pandemic. Rev. Bras. Enferm. 73, 5–9 (2020).
5. Tolyat, M., Vagharseyyedin, S. A. & Nakhaei, M. Education of nursing profession amid COVID-19 Pandemic: A qualitative study. J. Adv. Med. Educ. Prof. 10, 39–47 (2022).
6. Dewart G.; Lynn c.; Lorraine t.; Kristin P. Nursing education in a pandemic: Academic challenges in response to COVID-19. Nurse Educ. Pract. 92, (2020).
7. Frenk, J. et al. Challenges and opportunities for educating health professionals after the COVID-19 pandemic. Lancet 400, 1539–1556 (2022).
8. Jackson, D. et al. Life in the pandemic: Some reflections on nursing in the context of COVID-19. J. Clin. Nurs. 29, 2041–2043 (2020).
9. Morin, K. education after COVID-19: Same or different? J. Clin. Nurs. 29, 3117–3119 (2020).

10. Al- Momani, S. M. & Fayez Abdu, M. Field Training and Level of Stress in College Students: A comparison between Nursing Students who take care of ill Children and Early Childhood Education Students who Take care of Healthy Children. Advances in Social Sciences Research Journal vol. 5 (2018).
11. Rasiah, R., Kaur, H. & Guptan, V. Business continuity plan in the higher education industry: University students' perceptions of the effectiveness of academic continuity plans during COVID-19 pandemic. Appl. Syst. Innov. 3, 1–21 (2020).
12. Grafton, E., Elder, E. & Burton, R. Innovative strategies to maintain nursing students' academic continuity during COVID 19 pandemic. J. Appl. Learn. Teach. 4, 21–28 (2021).
13. Ghasemi, M. R., Moonaghi, H. K. & Heydari, A. Strategies for sustaining and enhancing nursing students' engagement in academic and clinical settings: A narrative review. Korean J. Med. Educ. 32, 103–117 (2020).
14. Costa, A.L., Kallick, B. through_the_lens_of_a_critical_friend.pdf. 51, 49–51 (1993).
15. Swaffield, S. Light touch critical friendship. Improv. Sch. 10, 205–2019 (2016).
16. Ragoonaden, K. Self-study of teacher education practices and critical pedagogy: The fifth moment in a teacher educator's journey. Stud. Teach. Educ. 11, 81–95 (2015).
17. Ragoonaden, K., & Bullock, S. Critical friends: The practiced wisdom of professional development. in Mindfulness and critical friendship: A new perspective on professional development for educators 13–32 (Lanham, MD: Lexington Books, 2016).
18. Kolb, D. A. Experiential Learning: Experience as The Source of Learning and Development. Prentice Hall, Inc. 20–38 (1984) doi:10.1016/B978-0-7506-7223-8.50017-4.
19. 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. 30, 1519–1541 (2021).
20. Polit, DF., B. C. Nursing Research: Generating and Assessing Evidence for Nursing Practice. (Wolter Kluwer., 2021).
21. Erdfelder, E., FAul, F., Buchner, A. & Lang, A. G. Statistical power analyses using G*Power 3.1: Tests for correlation and regression analyses. Behav. Res. Methods 41, 1149–1160 (2009).
22. Budgen, C. & Gamroth, L. An overview of practice education models. Nurse Educ. Today 28, 273–283 (2008).
23. Statistics, I. B. M. S. IBM SPSS statistics for windows. (2015).
24. ElMachtani ElIdrissi, W., Lajane, H., Chemsi, G. & Radid, M. Evaluation of Clinical Teaching by Nursing Students at the Higher Institute of Nursing and Health Techniques in Casablanca, Morocco. J. Educ. Soc. Res. 12, 28–39 (2022).
25. Aslan PhD, H. & Erci PhD, B. The Impact of Peer Support Provided to the First-Year Students of Nursing on the Clinical Stress and Psychomotor Nursing Skills. Int. J. Caring Sci. 14, 68–78 (2021).
26. Kim, H. J. The Effects of Fundamental Nursing Practice Education Applying Reciprocal Peer Tutoring on Self-Efficacy, Confidence in Performance, Satisfaction. J. Digit. Converg. 18, 315–323 (2020).
27. Stenberg, M., Bengtsson, M., Mangrio, E. & Carlson, E. Preceptors' experiences of using structured learning activities as part of the peer learning model: A qualitative study. Nurse Educ. Pract. 42, 102668 (2020).
28. Carbone, R. et al. Peer support between healthcare workers in hospital and out-of-hospital settings: a scoping review. Acta Biomed. 93, (2022).