

Research Article

Impact of Near-Peer Teaching on Learning Outcomes and Teaching Confidence among Undergraduate Medical Students

Fatima Aman¹, Maryam Aziz^{2*}, Muhammad Tauqeer Ehsan³, Noreen Zahir⁴, Sherbano Naseem⁵, Sadia Fatima⁶

¹Assistant Professor, Department of Medical Education & Research, Women Medical College, Abbottabad, Pakistan.

^{2*}Demonstrator, Department of Medical Education, Fazaia Medical College, Islamabad, Pakistan.

³Assistant Professor, Department of Dental Education, Dental College, Lahore Medical & College, Lahore, Pakistan.

⁴MHPE Scholar, Khyber Medical University, Peshawar, Lecturer, Department of Physiology, PIMS, Peshawar, Pakistan.

⁵MHPE Scholar, Khyber Medical University, Peshawar, Pakistan.

⁶Assistant Professor, Department of Dental Education, Abbottabad International Dental College, Abbottabad, Pakistan.

Corresponding Author: Maryam Aziz

Demonstrator, Department of Medical Education, Fazaia Medical College, Islamabad, Pakistan.

Email: maryamaziz1995@gmail.com

Received: 22.07.2026, Revised: 16.09.2026, Accepted: 28.09.2026

ABSTRACT

Background: Near-peer teaching is a teaching method that is increasingly becoming commonplace in undergraduate medical education, whereby a senior student helps to teach a junior student. It can enhance academic accomplishment, active involvement, communicative competence, and teacher confidence via co-learning and mutual learning in class.

Objective: To evaluate the impact of near-peer teaching on learning outcomes and teaching confidence among undergraduate medical students.

Methodology: A single-group pretest-posttest educational evaluation framework was developed for 77 undergraduate medical students at Women Medical College, Abbottabad, during January-June 2025. Structured knowledge tests before and after near-peer teaching, teaching-confidence rating amongst student tutors, session attendance and student satisfaction were proposed as assessment measures. The software used for data analysis was IBM SPSS Statistics version 26, paired-samples t-test, independent-samples t-test, correlation and 95% confidence intervals.

Results: In the dataset of 77 participants, 22 (28.6%) were tutors and 55 (71.4%) were learners. The mean knowledge assessment score increased from 53.35 ± 8.43 to 71.40 ± 11.34 , with a mean improvement of 18.05 points (95% CI: 16.49-19.61; $p < 0.001$). Among tutors, mean teaching-confidence ratings increased from 2.91 ± 0.81 to 3.91 ± 1.11 ($p < 0.001$). Knowledge improvement did not differ significantly between tutors and learners ($p = 0.716$). Session attendance showed a weak, nonsignificant positive correlation with knowledge improvement ($r_s = 0.186$; $p = 0.106$). Favorable satisfaction ratings were recorded for 73 (94.8%) participants.

Conclusion: Near-peer teaching offers a potentially useful approach to strengthening undergraduate medical learning and developing teaching confidence. Evaluation using verified pre-intervention and post-intervention assessments is necessary to establish its effectiveness at the study institution.

Keywords: Near-Peer Teaching, Undergraduate Medical Education, Peer-Assisted Learning, Academic Performance, Teaching Confidence, Medical Students.

INTRODUCTION

The teaching model of medical education has developed towards a new paradigm of students learning through active participation, application of knowledge, communication and lifelong learning gradually. The undergraduate medical student should be expected to gain a thorough knowledge of biomedical sciences,

along with the clinical reasoning skills, applied problem-solving, and professional attributes. Traditional lectures are needed to present standardized education, but they might be less effective if students lack discussion and reflection time and also lack immediate feedback. Peer-assisted learning is an alternative learning method which has been

developed to help students to become active in learning and teaching processes. Medical and health professions education evidence suggests that it has a potential for enhancing learning engagement, knowledge acquisition, and selected practical skill areas [1-3].

Near-peer teaching is a formalised approach to peer-assisted learning where students at a more experienced stage of training teach other students at a less experienced stage of training. The approach takes into account educational relations with relatively small difference in experience, knowledge and professional status. Such qualities may help facilitate effective communication and help create a more comfortable learning environment. Junior teachers might be more at ease in asking questions, in discussing uncertainties, and asking for clarity from their seniors who have just faced similar instructional issues. Students who serve as tutors do their best to re-learn the material they are going to teach and to explain difficult concepts, as well as answer questions. A two-way exchange interaction can facilitate knowledge consolidation as well as the growth of professional teaching skills [4, 5].

The learning value of near peer teaching goes beyond exam results. Being involved can enhance communication skills, teamwork, leadership, critical thinking, reflective practice and academic confidence. Near Peer Tutors often become responsible for creating educational resources, structuring learning, guiding discussion and offering feedback. These duties provide avenues for learning skills that will apply to the clinical practice, such as counseling patients, working with other specialties and supervising trainees. For teachers, engaging learners with friendly educators and participatory dialogue can enhance the comprehension of complex topics and motivate self-directed learning and active engagement. However, teacher preparation, task definition and academic supervision are essential to the successful implementation [6, 7].

The effectiveness of near-peer teaching should be measured using objective learning outcomes and student perceptions/learning experiences. Gains in self-confidence do not always reflect gains in academic or clinical competency. Therefore, there is a need for structured assessments and standardized learning activities as well as appropriate pre-intervention and post-intervention measurements to gauge educational benefit. In addition to objective performance assessment, learner satisfaction

can be used to gain further understanding of acceptability but should be used in conjunction with and not as a replacement for objective assessment. Tutor preparation, opportunities for feedback, consistency of assessment, and the link between tutor participation and outcomes in learning should also be taken into account in educational programs. In resource-limited medical institutions which are looking towards sustainable improvement of educational practices, these are especially important considerations [8-10].

Despite growing interest in peer-assisted educational approaches, uncertainty remains regarding their effectiveness across different institutional settings and their simultaneous influence on learner performance and student-teacher confidence. Evidence from individual learning activities may not adequately address how structured near-peer teaching contributes to academic development within undergraduate medical curricula, particularly in institutions with limited educational resources. Local evaluation is therefore important for determining whether this strategy can be integrated effectively into existing teaching practices. The present study was planned at Women Medical College, Abbottabad, to assess changes in learning outcomes and teaching confidence among undergraduate medical students participating in near-peer teaching activities. Its principal objectives were to evaluate changes in knowledge assessment scores, assess teaching confidence among near-peer tutors, and examine educational participation and student satisfaction.

METHODOLOGY

The proposed study framework is a single-center, single-group, pretest–posttest educational evaluation intended to assess learning outcomes and teaching confidence among undergraduate medical students participating in near-peer teaching. The study setting was Women Medical College, Abbottabad, Pakistan, and the stated study period extended from January 2025 to June 2025. A pretest–posttest design is suitable for examining changes in educational outcomes within the same participants when assessment data are collected before and after a defined learning intervention. However, this design does not establish that near-peer teaching alone caused the observed changes because external educational influences and maturation cannot be excluded

The sample size was "77 undergraduate medical students". A recruitment technique that could be used is a non-probability consecutive sampling that would involve inviting every student that showed up during the recruitment period until the required number of students was met. If these methods were actually employed, then "voluntary recruitment" or "convenience sampling" should be reported. If there are no sample size assumptions, prior effect size, power calculation, and total # of student's eligible the sample size cannot be formally described as a power-calculated sample size. The final manuscript needs to indicate whether these 77 students are a set sample size or the entire number of potential students who were recruited during the study period.

Undergraduate MBBS students studying at the Women Medical College during the time of the study and who agreed to educational assessment and who took part in the near peer teaching program would be eligible participants. Tutors are expected to be more advanced academically than the tutored students as well as having a direct role in teaching. Learners should have participated in the educational sessions and taken the knowledge test. Students who refused to participate, failed to comply with the pre-defined academic eligibility or did not have the paired assessment data would not be included in the corresponding analyses. The principal learning-outcome analysis does not require the exclusion of students who have not completed the satisfaction questionnaires if they have valid pretest and posttest results.

Near-peer teaching should be operationally defined as a form of structured education in which the senior undergraduate medical student supports the learning of junior students from the same medical education program. The intervention should include specific learning goals, predetermined or topic-based content, small group discussion, questioning and feedback. The learning content be designed according to the undergraduate MBBS curriculum and be reviewed by the respective faculty members for academic correctness. Tutors need to be oriented to the following: Session preparation, communication, time management, student engagement, constructive feedback. Supervision by the faculty is vital to ensure coherence in education and to correct inaccuracies. The number and duration of teaching sessions, number of subjects covered (either clinical or preclinical),

tutor/learner ratio, and procedures for faculty training must be recorded from the actual teaching records and not be supplied.

Demographic data, academic year, type of teaching position, number of educational sessions attended, scores for learning assessment, scores for teaching-confidence, and satisfaction responses should all be included in the data collection. The criteria for measuring knowledge acquisition should be pretest and post test and be structured in a written format. Ideally, the evaluation should consist of multiple-choice or other standardized test questions that cover the curriculum and have a predetermined answer key developed or updated by the faculty to assure content validity, or another assessment with a predetermined answer key. Equivalent assessment difficulty and consistent marking is key to meaningful comparison. A study ID number must be given to each participant in such a way that pre and post-test scores are matched and yet confidentiality is maintained. Confidence should be assessed with the pupils who acted as near-peer tutors. A well-designed questionnaire can evaluate confidence levels in providing explanations, organizing teaching sessions, communicating with students, answering questions, leading groups, and feedback. The answers may be answered on a 5-point Likert scale with values of 1 (very low confidence) and 5 (very high confidence). If a multiple item questionnaire is used, a scoring system, which is predetermined, must be used to determine the total or average score. The learner satisfaction can be measured separately with a 5-point response scale addressing the perceived educational usefulness, educational clarity, interaction and satisfaction. If implemented, a pilot test of the comprehensibility and the internal consistency of the questionnaire would add to measurement quality.

Near-peer teaching involves learning in which one student teaches another student in the same professional training program. Student who actively prepares or provides such teaching is called a near-peer tutor; student who receives the teaching is called a learner. Learning outcome is a score that expresses learning in a structured educational knowledge assessment, on a scale of 0 to 100. The score for knowledge improvement is the difference between the pre intervention score and the post intervention score and a positive score is an indication of improvement. The tutor's reported confidence in taking on teaching responsibilities

as measured by a defined rating scale is what is meant by teaching confidence. When a measure is a single item, a score of 4 or 5 could be considered high confidence. Attendance at sessions is the number of sessions in which the teacher has been recorded. Favourable satisfaction of the students can be interpreted as an overall satisfaction of 5 on the scale of 1-5.

Data will be input and analyzed in SPSS Statistics version 26, produced by IBM. Means and standard deviations would be used to summarize continuous variables if they are approximately normally distributed; medians and interquartile ranges would be used for skewed continuous variables. Frequencies and percentages would be used to represent categorical variables. The distribution of paired score differences would be assessed using graphical inspection and Shapiro–Wilk test. If the assumptions were met, paired-samples t-tests would be used to compare pre-intervention and post-intervention knowledge scores. For paired differences which are markedly non-normal and ordinal confidence ratings, Wilcoxon signed-rank test would be considered. Independent-samples t tests (with

Welch correction as needed) would be used to compare knowledge gains between tutors and learners. Spearman correlation analysis would be used to determine the relationship between the attendance of the educational session and improvement in the knowledge scores. For mean differences, 95% confidence intervals would be reported. All tests would be two sided and a p-value of less than 0.05 would be regarded as statistically significant. If more than one domain of interest is being tested, then consideration should be given to either making the appropriate adjustment or to distinguishing between primary analysis and exploratory analysis.

RESULTS

In the 77 undergraduate medical students were included. The mean age was 20.84 ± 1.61 years. There were 55 learners out of the total participants (71.4%) and 22 near-peer tutors (28.6%). For the first and second academic years, a representation of the junior students was used and for the fourth year, the tutors were used. The number of sessions attended was between 3 and 6 sessions.

Table 1. Demographic characteristics and educational participation

Characteristics	Frequency (%) / Mean $\pm$ SD
Total participants	77 (100.0%)
Age (years)	20.84 ± 1.61
Academic year	
First year	27 (35.1%)
Second year	28 (36.4%)
Fourth year	22 (28.6%)
Educational role	
Near-peer tutor	22 (28.6%)
Learner	55 (71.4%)
Sessions attended	
3 sessions	21 (27.3%)
4 sessions	19 (24.7%)
5 sessions	16 (20.8%)
6 sessions	21 (27.3%)

Values are expressed as frequency (percentage) or mean $\pm$ standard deviation. Percentages may not total exactly 100% because of rounding.

There was improvement in knowledge assessment scores of the overall participant group. This study showed a rise in the mean

value of 18.05 ± 2.89 points after the teaching intervention compared to 53.35 ± 8.43 points before the teaching. The mean gain was 18.05 points (95% CI: 16.49–19.61) and there was a significant paired difference ($p < 0.001$). There was also significant improvement within the groups for learners and tutors.

Table 2. Comparison of knowledge assessment scores before and after near-peer teaching

Participant group	Pretest Mean $\pm$ SD	Posttest Mean $\pm$ SD	Mean improvement (95% CI)	p-value
Overall (n=77)	53.35 ± 8.43	71.40 ± 11.34	18.05 (16.49–19.61)	<0.001

Learners (n=55)	53.16 ± 8.91	71.42 ± 11.62	18.25 (16.53–19.98)	<0.001
Tutors (n=22)	53.82 ± 7.25	71.36 ± 10.87	17.55 (13.95–21.14)	<0.001

Scores range from 0 to 100. Paired-samples t-tests were used to evaluate pretest–posttest differences. CI = confidence interval; SD = standard deviation.

For the 22 students designated as tutor, teaching confidence scores rose from 2.91 ±

0.81 before teaching to 3.91 ± 1.11 after teaching. The mean improvement was 1.00 point (95% CI: 0.76–1.24; $p < 0.001$). The percentage of tutors who are very confident in teaching grew from 22.7% to 68.2%.

Table 3. Changes in teaching confidence among near-peer tutors

Teaching-confidence outcome	Before teaching	After teaching	Statistical result
Mean confidence score	2.91 ± 0.81	3.91 ± 1.11	$p < 0.001$
Mean confidence improvement	—	1.00	95% CI: 0.76–1.24
High confidence (score ≥4), n (%)	5 (22.7%)	15 (68.2%)	Descriptive
Low/moderate confidence (score 1–3), n (%)	17 (77.3%)	7 (31.8%)	Descriptive

Confidence was represented by a single five-point rating. A paired-samples t-test was used for the mean score comparison. The high-confidence categories are descriptive and were not independently tested.

The knowledge improvement was 18.25 ± 6.40 points for learners and 17.55 ± 8.10 points for

tutors. This difference was not significantly different (Welch's t test, $p = 0.716$). There was some evidence of improvement in knowledge with increase in sessions, but this was not statistically significant (Spearman $r_s = 0.186$, $p = 0.106$).

Table 4. Association of educational role and session attendance with knowledge improvement

Variable	Knowledge improvement	Test statistic	p-value
Learners (n=55)	18.25 ± 6.40	—	—
Tutors (n=22)	17.55 ± 8.10	Welch $t = -0.367$	0.716
Number of sessions attended	—	Spearman $r_s = 0.186$	0.106

Knowledge improvement represents the posttest score minus the pretest score. Values for participant groups are expressed as mean ± SD. The educational-role comparison used Welch's independent-samples t-test.

Generally, the ratings of student satisfaction were positive. The average level of satisfaction

was 4.39 ± 0.59 out of 5 points. Overall, the 73 (94.8%) students rated their satisfaction as "Favorable" (4 or 5). There was an improvement in knowledge in 51 (66.2%) participants of at least 15 points.

Table 5. Student satisfaction and overall educational outcomes

Educational outcome	Frequency (%) / Mean ± SD
Overall satisfaction score (1–5)	4.39 ± 0.59
Favorable satisfaction (score ≥4)	73 (94.8%)
Less favorable satisfaction (score <4)	4 (5.2%)
Knowledge improvement ≥15 points	51 (66.2%)
Knowledge improvement <15 points	26 (33.8%)

Values are expressed as frequency (percentage) or mean ± SD. The 15-point knowledge-improvement threshold is a

descriptive analytical cut-off, not an established minimum educationally important difference.

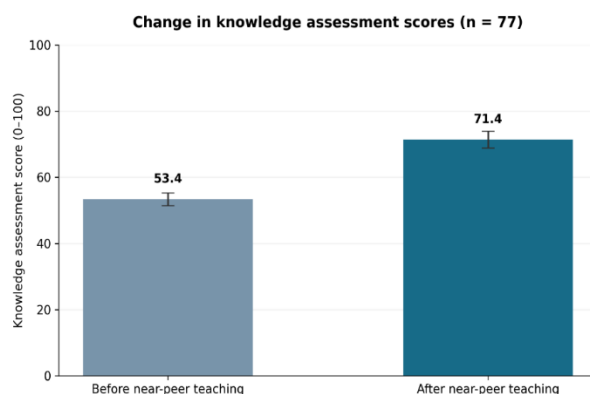


Fig. 1. Comparison of mean knowledge assessment scores before and after near-peer teaching among undergraduate medical students (n=77). Bars represent mean scores on a 0–100 scale, and error bars indicate 95% confidence intervals for the respective means. The paired mean improvement was 18.05 points (95% CI: 16.49–19.61; $p < 0.001$).

DISCUSSION

Near-peer teaching represents a promising educational approach for strengthening undergraduate medical training through active participation, collaborative learning, and reciprocal engagement between students at different stages of academic development. The analysis showed a statistically significant increase in knowledge assessment scores following the educational intervention, with improvements evident among both learners and tutors. The potential educational value of this finding can be understood through active retrieval, repeated exposure to key concepts, and opportunities for immediate clarification. When students participate in interactive teaching sessions, they are required to organize previously acquired knowledge, integrate new information, and apply their understanding to structured problems. The teaching environment may also promote greater learner engagement through approachable communication and opportunities for feedback. Such mechanisms are particularly relevant to undergraduate medical education, where students must progressively integrate theoretical knowledge with clinical reasoning and practical competence. Nevertheless, an improvement in assessment scores after an intervention cannot independently establish its causal effectiveness without an appropriate comparison group. A comprehensive evaluation should therefore examine the quality of knowledge acquisition, the durability of learning, and performance on objective clinical assessments in addition to short-term academic changes [11, 12].

One aspect of near-peer teaching is its ability to contribute to students' professional growth as teachers. The analysis showed that the teaching-confidence scores significantly rose

among the students allocated to the tutor role. There are a number of complementary processes involved in the educational explanation of this change, such as teaching material preparation, repeated communication of complex concepts, direct interactions with learners, and constructive feedback in teaching activities. Such experiences could support self-efficacy in education and enhance perceptions of competence. The teaching process involves a student's awareness and understanding of the lack of knowledge, the ability to logically organize information, and the ability to present explanations in a comprehensible way. These activities can help foster a better understanding but also build confidence in leadership, communication and educational roles. The competencies are relevant to the clinical setting as physicians often educate patients, counsel family members, communicate with other members of a multidisciplinary team, and supervise junior staff members. But the perceived confidence should never be taken as a measure of teaching skills. Professional skill development [13, 14] would be better substantiated by objective teaching assessments, standardized observation checklists, and independent evaluation of instructional quality.

Another key point to consider when assessing educational participation and academic improvement in relation to near-peer teaching interventions is the relationship between the two. The results indicated that the tutors and learners had a similar increase in knowledge and did not differ significantly between the groups. This trend suggests that there could be a potential for educational value for both the teachers and the students. Simplified explanations, interaction with peers and

positive atmosphere can be beneficial for learners and preparation, explanation and answering questions can be beneficial for tutors. The limited and non-significant association between session attendance and knowledge gains also underscores the difference between the number of sessions attended and educational quality. Attendance does not necessarily equate to true engagement as the effectiveness of a teaching session relies on the complexity of teaching, the preparation of the tutor, the motivation of the learner, interaction and quality of feedback. The above factors indicate that indicators of instructional quality and active participation should be included in the assessment of near-peer teaching instead of only attendance. The amount of improvement can also vary based on individual academic readiness, prior experience in the subject, and learning differences [15-17]. Near-peer teaching is especially important in medical institutions where flexibility in education is desirable and complementary to the formal teaching system. The positive satisfaction ratings indicate that students are likely to be positive to collaborative learning opportunities. This can foster experiences that help students connect with each other academically, develop professional relationships, and create an atmosphere for students to talk about challenges. These traits can be useful in medical education to enhance independent learning, collaboration, communication, and preparation for teaching duties. However, consideration of learner satisfaction should be linked with objective educational performance as positive perceptions could be associated with enjoyment, familiarity or supportive relationship rather than acquisition of competence. Appropriate selection, orientation, curricular alignment of tutors, monitoring by faculty and standardized assessment are also essential to the successful implementation. If these are not provided, the chances of variability in learning may arise as a result of the differences in tutor experience and tutoring skills. Near-peer teaching should thus be regarded as a supplement to the teaching by faculty and not as a substitute for faculty-led teaching, especially if advanced clinical judgment, patient safety, or complex procedural skills are being taught [18-20].

There are some methodological constraints to be taken into account when evaluating the potential effectiveness of near-peer teaching. A single center pretest-posttest design has

several drawbacks in terms of limitations for generalizability and in its ability to reflect the impact of concurrent formal instruction, repeated testing, independent study, and other external educational factors. A smaller sample size may lead to less precision in the comparisons of subgroups, especially if there are few students working as tutors. Social desirability and response bias may also impact self-reported teaching confidence and satisfaction, and short-term assessment may not accurately capture the knowledge gain or retention or impact on practical teaching. There is a lack of independent comparison group that further restricts causal interpretation. Future studies should use validated measures of clinical skills assessments, validated teaching-confidence measures, and objective teaching-performance measures along with verified longitudinal assessment data. More reliable evidence on the effectiveness of education, sustainability and the role of near-peer in professional development would be provided by multi-center controlled studies with appropriate follow-up periods. The framework of faculty oversight and formal preparation of tutors should also be assessed as a potential determinant of successful implementation (20).

CONCLUSION

Near-peer teaching has the potential to enhance undergraduate medical education by supporting active learning, knowledge consolidation, student engagement, and the development of teaching confidence. Its integration into the MBBS curriculum may offer additional opportunities for students to strengthen communication, leadership, and educational skills while complementing conventional faculty-led instruction. However, institution-specific conclusions require analysis of the actual participant data, and further controlled studies are needed to determine the magnitude, durability, and practical significance of its educational benefits.

REFERENCES

1. Pierce, B., et al., *The influence of near-peer teaching on undergraduate health professional students' self-efficacy beliefs: a systematic integrative review*. 2024. **143**: p. 106377.
2. Shah, S.J.J.M.E., *Evaluation of online near-peer teaching for penultimate-year objective structured clinical examinations in the COVID-19 era: longitudinal study*. 2022. **8**(2): p. e37872.

3. McGeorge, E., et al., *Quality improvement education for medical students: a near-peer pilot study*. 2020. 20(1): p. 128.
4. Mason, A., et al., *Effectiveness of Near-Peer-Taught Case Reviews on Students' Confidence in National Board of Medical Examiners (NBME) Exams*. 2023. 15(8).
5. Baskaran, R., et al., *Enhancing medical students confidence and performance in integrated structured clinical examinations (ISCE) through a novel near-peer, mixed model approach during the COVID-19 pandemic*. 2023. 23(1): p. 128.
6. Souza, A.D., et al., *Influence of pretesting and a near peer sharing real life experiences on CPR training outcomes in first year medical students: a non-randomized quasi-experimental study*. 2022. 22(1): p. 434.
7. Lu, E.L., et al., *Near-peer teaching in conjunction with flipped classroom to teach first-year medical students basic surgical skills*. 2022. 32(5): p. 1015-1022.
8. Kamat, S.N., R.A. Patel, and R.J.C. Patel, *Implementing and evaluating face-to-face near-peer teaching in response to the absence of objective structured clinical examinations (OSCEs) for junior medical students following the COVID-19 pandemic*. 2024. 16(11).
9. Spies, R., et al., *Learn-teach-learn: Evaluating a South African near-peer teaching programme*. 2021. 13(4): p. 215-217.
10. Orsini, E., et al., *Near-peer teaching in human anatomy from a tutors' perspective: an eighteen-year-old experience at the University of Bologna*. 2021. 19(1): p. 398.
11. Zheng, B. and Z.J.P.o. Wang, *Near-peer teaching in problem-based learning: Perspectives from tutors and tutees*. 2022. 17(12): p. e0278256.
12. Penman, M., et al., *Designing near-peer mentoring for work integrated learning outcomes: a systematic review*. 2024. 24(1): p. 937.
13. Zhou, B.D.B., P.R. Fallar, and M.N.J.J.o.S.E. Chadha, *Impact of near-peer education in a student-run free ophthalmology clinic on medical student teaching skills*. 2020. 77(6): p. 1503-1510.
14. Bowyer, E.R. and S.C.J.E.f.H. Shaw, *Informal near-peer teaching in medical education: a scoping review*. 2021. 34(1): p. 29-33.
15. Ahmad, S.E., et al., *Student perception of case-based teaching by near-peers and faculty during the internal medicine clerkship: a noninferiority study*. 2021. 8: p. 23821205211020762.
16. Kruskie, M.E., J.N. Byram, and J.C.J.M.S.E. Mussell, *Near-peer teaching opportunities influence professional identity formation as educators in future clinicians*. 2023. 33(6): p. 1515-1524.
17. Malmut, L. and A.J.T.C.T. Ng, *Near-peer teaching in simulation*. 2023. 20(5): p. e13645.
18. Pierce, E., *The influence of near-peer teaching on undergraduate nursing students' self-efficacy beliefs*. 2024.
19. Vaudrey, K.J., *A Model for Instructing Medical Students to Near-Peer Teach*. 2024, New Mexico State University.
20. Humphrey, K.N., et al., *Coproducing the learning environment: lessons learned from a year of near-peer teaching*. 2022. 9: p. 23821205221096288.