



Original Article

Traditional teaching Versus Peer group Learning: Their effect on Student's learning

Dr K. Ravi kanth¹, Dr. Abigna Bhavanam², Dr. P. Raga Deepthi³, Dr. Tippaluri Sharief⁴

¹ Associate professor, Department of Pediatrics, Katuri Medical college, Andhra Pradesh.

² Assistant professor, Department of Pediatrics, Katuri Medical college, Andhra Pradesh.

³ Assistant professor, Department of Community Medicine, Government Siddhartha Medical Collage, Andhra Pradesh.

⁴ Junior Resident, Department of Pediatrics, Katuri Medical college, Andhra Pradesh.

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Corresponding Author:

Dr K. Ravi kanth

Associate professor, Department of
Pediatrics, Katuri Medical college,
Andhra Pradesh.

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ABSTRACT

The new curriculum by National medical council (NMC) for undergraduate medical education emphasis on competencies in a move towards competency based medical education., So traditional teaching practice with current curriculum is found to be little outdated & non interesting. Clinical practice by present curriculum is a vital part for medical graduating student, so the relationship between the student and the instructor is fundamental to the learning process. Peer learning offers student the opportunity to learn from each other. The positive effect of peer learning can be self-confidence, autonomy, increased cognitive skills, reasoning and clinical skills are highlighted. By peer learning the students are able to develop collaborative and leadership qualities, increased self-evaluating skills, critical thinking and the opportunity to share the experience of a fellow student without the immediate interference of the preceptor. Methodology –Study Design: Cross sectional study, Study Participants: 100 MBBS part – II student divided into two batches (50 each), 8 Faculty Study period: 3 months (October 2021 to December 2021). Study place: Katuri Medical College & Hospital. Study tool: Pretest and Posttest questionnaire. Conclusion-Peer group learning is useful for present CBME curriculum and also improve student learning skills and interaction with the other students to improve his knowledge and can overcome his negatives to positives by peer group learning.

Keywords: Conventional teaching, peer learning, curriculum, traditional method.

ITRODUCTION

The new curriculum by National medical council (NMC) for undergraduate medical education emphasis on competencies in a move towards competency based medical education., So traditional teaching practice with current curriculum is found to be little outdated & non interesting. Clinical practice by present curriculum is a vital part for medical graduating student, so the relationship between the student and the instructor is fundamental to the learning process. Peer learning offers student the opportunity to learn from each other.

In the ever-evolving field of education, innovation is fueled by the search for efficient teaching strategies. Traditional didactic lectures and other teacher-driven learning activities may not ensure that every student effectively acquires knowledge ^[1, 2].

Traditional teaching involves large groups of students and a tutor who interacts with the tutee to enhance the learning process and give greater attention to each individual student. This allows the tutees to engage with the tutors and get their questions answered. The foundation of educational practices has historically been tradiyional teaching, but the emergence of small group Peer Learning Modules (PLM) offers an alternative paradigm that promotes interactive and collaborative learning environments.

PLM is a process of student centric learning strategies that enables students to learn from one another. This learning strategy can be facilitated by student seminars, problem or case-based learning which encourages students to actively

explore literature, understand, analyze, share their insights, develop communication skills, promote self-confidence, and take up the onus of learning. Because they feel more at ease working with their peers, students are more likely to interact, ponder, and delve deeper into topics than they would in a classroom setting ^[3].

PLM is based on social constructivism model that encourages students to actively construct knowledge by interacting with peers, patients, and experienced healthcare professionals. Social engagement is crucial to help students develop clinical reasoning, communication skills, and professional identities ^[4].

A diverse array of teaching methods is used in medical education to help students gain the knowledge and abilities they need. These teaching strategies include didactic lectures, case studies, role-playing games, seminars, problem-based learning techniques, video demonstrations, etc ^[5]

One of the most important factors, which plays key role in acquisition of knowledge by medical students along with the gratification is the choices of teaching methodologies.⁶ In recent years, there are some innovative, visionary and economical ways adapted by many educational systems to enhance the quality of traditional lecture based teaching which can be useful for students to grow their understanding and learning abilities.⁷

Peer Assisted Learning (PAL) is an ingenious design for learning in which people from similar educational context help each other through learning materials, which they have already gone through. These Peers may be of higher or equal educational experience level.⁸ Only limited numbers of quantitative studies have been done to analyze the effect of PAL versus conventional teaching methodology. No significant statistical data provides the efficacy of learning through students tutor. Majority of qualitative studies just revealed the benefits of peer assisted learning.

The aim of this study was to evaluate the influence of PAL on students of Part-I MBBS in comparison with traditional learning system with regard to knowledge, skills and behaviour.

The exact value of this peer learning over traditional teacher-led tutorial sessions is still up for debate.

MATERIAL AND METHOD'S

The study participants were Hundred (100) students of Part-I final year medical graduates in a private medical college. Ethics clearances was obtained from the Institution ethics committee, Katuri Medical college and hospital, Guntur, Andhra Pradesh. 100 students of Part- I final year medical undergraduates was taken in to study.

Before starting this study, we have given training to Eight (08) faculty persons of various positions like Assistant professor, Senior resident and Junior resident were trained to conduct the study smoothly and to prevent Bias.

The part – I final year undergraduate students who are posted in the department of paediatrics for clinical posting are enrolled in to the study. The students were divided in to two groups (Group – A & Group - B)50 members of each group according to their roll numbers. The two groups were given same topic like New born examination. For both groups pre test and post test will be conducted.

For Traditional teaching batch (50) Group - A the faculty person will take the class in the normal traditional way. For the nest batch (50) Group – B they were divided in to small groups as per there roll number and ask to have peer learning among them.

For both groups topic will be give and pre and post test will be conducted. Next group which was going for traditional teaching will be shifted to peer learning and vice-versa. The topics taken in the study are New born examination, General paediatric case sheet, New born case sheet, Anthropometry examination of children. The study was conducted over a period of 3(three) months from October 2021 to December 2021.

For each group pre test before the session stars and post-test after the session completed will be done and feed back form also take from both groups after completion of the posting.

For assessment of knowledge MCQ – multiple choice questions given for both groups peer learning and Traditional learning, SEQ – short essay questions were included while for the assessment of skill and attitude, OSPE examination was carried out. Examination was conducted and checked by the same faculty members to avoid Bais. The results of the both groups in terms of knowledge, skill and attitude were compared through quantitative data analysis technique.

Results of the study were confirmed using t- test. Data analysis were done on SPSS version 25 and significant level was set P = 0.0001

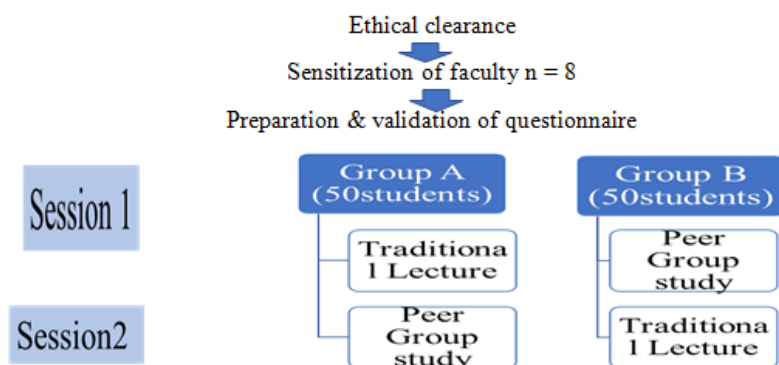
Study Design: Cross sectional study

Study Participants: 100 MBBS part – II student divided into two batches (50 each), 8 Faculty

Study period: 3 months (October 2021 to December 2021)

Study place: Katuri Medical College & Hospital

Study tool: Pretest and Posttest questionnaire



A pretest and posttest were conducted before and after each session. Feedback regarding perception of student towards traditional teaching and Peer group was taken at the end of second session. And Data analyses was done.

RESULTS

- Before the intervention, majority 90% and 92% of Final year part – II undergraduate medical students had below average level of knowledge score in peer group learning and traditional learning, respectively.
- Paired T test and unpaired T test was done for statistical analysis. Results after interaction with peer group learning showing significant that $P = 0.0001$
- Implying that peer group learning is better than traditional teaching.

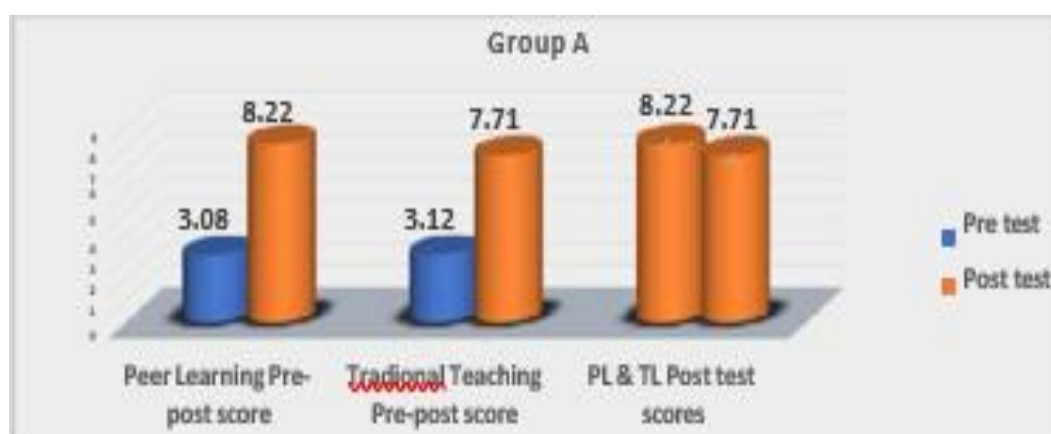


Figure - 1

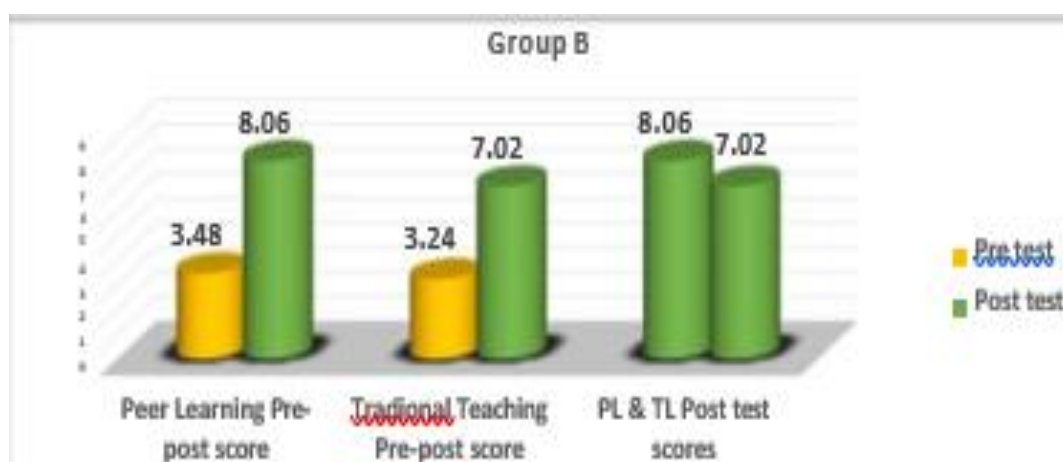


Figure -2

Table – 1

Student perception on peer group learning					
Perception of students	Very Bad	Bad	Average	Good	Very Good
Abel to perform procedure confidently after peer group learning	0%	2%	12%	64%	22%
Able to perform after teaching by teacher/instructor	0%	1%	16%	59%	24%
Participation and support from peers in peer group learning	1%	4%	16%	59%	24%
Feel free to express doubts in peer group learning	0%	0%	10%	51%	39%
Time well spent learning in peer group learning	0%	1%	22%	39%	38%
Increase interaction and collaboration with students more in peer group	0%	0%	17%	44%	39%
Approach by students for help feel comfortable in peer group learning	0%	2%	17%	44%	39%
Student fell more responsible in peer group learning	0%	0%	23%	56%	21%
Volunteer contribution more in peer group learning	0%	5%	42%	31%	22%
Able to learn more skills in peer group learning	0%	3%	39%	37%	21%

The results of our study showed that mean knowledge scores of Peers assisted learning was higher than the traditional teaching showing statistically significant.

DISCUSSION

In contemporary higher education, there has been a notable shift towards prioritizing teaching and learning methodologies. The teaching methods play a pivotal role in the lives of medical students for them to be good professionals ⁰⁹. There has been a discernible shift in the educational landscape in recent years from the conventional understanding of the teacher as the principal expert, using mostly didactic approaches, to a more modern understanding of the teacher as a learning facilitator. ¹⁰ In this changing paradigm, teachers are no longer solely responsible for being the exclusive purveyors of information; instead, they are expected to assist students in identifying resources and paths toward knowledge ⁰⁹.

Peer assisted learning is being used globally in medical education. It is mutually beneficial for student tutors and student learners. ^{11,12,13,14,15,16} It is also good for institution, as it lessens the teaching load on faculty. ¹⁷ Moreover, it can be used to fill gaps in the curriculum taught by professional faculty. ¹⁸ Peer group learning has been incorporated in the curriculum globally, in higher education and to some extent in health profession as well. ¹⁹

Students also gave feedback regarding the peer learning. They thought that the environment was conducive to collaborative learning as they stated, “Interactions were good”. They also felt the active involvement and participation as they quoted, “Was active throughout the session”. Additionally, students indicated a perceived improvement in this area by highlighting the positive effects of the peer learning module on their communication skills as they stated, “Able to improve my communication skills”.

Participants recognized the importance of group discussions in promoting learning, pointing out that they learned something from the discussions that they might not have learned from solitary study as they asserted, “Was able to learn something which I would have missed when I read by myself”.

Participants did, however, also point out areas that needed improvement. The apparent lack of time allotted for discussion was one issue that was raised, indicating the need for longer sessions or improved time management techniques to enable more in-depth topic analysis. Students also mentioned, “Some group members are hesitant and not effective in explaining” this showed that here have also been issues with some group members’ ability to effectively convey concepts, which could leave the rest of the group with knowledge gaps. “If a student fails to explain, other members tend to lose that part of topic.” Participants also highlighted the interconnectedness of collaborative learning by expressing concern that other group members may find it difficult to understand a particular aspect of the material if a student fails to present it well. The incomplete participation of all group members or the poor performance of some individuals, which subsequently affects the group’s success, is another problem that these studies draw attention to ^{1, 19, 20}. This disadvantage can be overcome by a trained facilitator helping the respective group.

CONCLUSION

Peer group learning is useful for present CBME curriculum and also improve student learning skills and interaction

with the other students to improve his knowledge and can overcome his negatives to positives by peer group learning. The findings suggest that small-group peer learning stands out as a promising strategy, greatly increasing student participation and enabling a deeper comprehension of the material. In addition to developing vital abilities like teamwork, communication, and critical thinking, peer learning creates a safe space where students may help and learn from one another. On the other hand, while still beneficial for offering thorough treatment of subjects, traditional tutorial sessions do not have the same interactive and collaborative components as peer learning environments.

Drawbacks & Limitations: The study was conducted in limited number of students and retention of knowledge was not tested.

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CONFLICT OF INTEREST: The authors declare no conflict of interest.

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