

PEER ASSISTED LEARNING IN MEDICAL INSTITUTES-A SYSTEMATIC REVIEW.

BATCH NO:9

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ABSTRACT

Objectives: To assess the effectiveness of peer-assisted learning (PAL) among undergraduate medical students.

Methodology: We conducted a systematic review according to the PRISMA guidelines. Data were collected from PubMed, PakMediNet, and Science direct from September 2022 to October 2022. From 1911 articles in search result, 890 were initially selected. They were then subjected to inclusion exclusion criteria and then full text screening. After these, a total of 16 articles were finalized from which data extraction was done. Original articles, cross-sectional studies and randomized controlled trials published between 2018 to 2022 that assessed the effectiveness of peer-assisted learning (PAL) among undergraduate students were included. All non-English articles were excluded. Commentaries, personal opinions and conference proceedings were also excluded.

Results: Sixteen studies were eligible for inclusion and among them fourteen studies (87.5 %) found to have sufficient and complete data to enable systematic review. Nine of these studies (64%) showed a significant improvement in the examination scores and skills. Four (28.5%) of these studies indicated an increased level of motivation and confidence in the practical field. Out of all these there only one study which showed no significant difference between the PAL group and control group.

Conclusion: Peer-assisted learning has been shown to be effective in improving the knowledge and to some extent academic performance of medical students. However, adaptation of this method as an institutional tool will requires long-term controlled studies to solidify the stance.

Limitations: Data collection in this study yielded a small sample size (n=16). The results of this study cannot be generalized to all students since the sample had medical students only. Comparison with expert-assisted learning (EAL) was not present in all studies.

Key Words: Peer-assisted learning (PAL), Systematic review, Medical students.

INTRODUCTION

Peer assisted learning (PAL) is a well-accepted method in various institutes, professional education and everywhere involving a process of interaction and socialization among students. 1 Peer assisted learning (PAL) is an activity in which students, who are not professional teachers, help other students in their academics. 2 Generally, it refers to those people who are from same social class help others. 3 A major problem faced by the medical students is understanding, retaining and then application of a challenging amount of medical knowledge and related skills in a short framework of time during their studies. 4 Therefore, PAL is widely accepted educational method and is practiced by students in helping their fellows.

When compared to passive learning, active learning is expected to provide pupils with more knowledge and improved learning skills exposed to a variety of educational opportunities. 5 Moving away from traditional classroom-based didactic methods and towards more student-centered active learning methods has resulted in evolution in medical education and training. 6 During the past few years, learning attitude of medical students has changed a lot and they no more longer rely on didactic methods; instead they prefer active learning, interactive sessions and peer assisted learning approaches. 7 This prompts the need to explore effective methods and approaches of interactive learning to cope this pool of knowledge.

In medical and health professions, large amounts of data from various researches are available reflecting the success of PAL program. 8-12 PAL program gives more time for individualized learning, interaction with same level students, healthier environment for discussions. 13 Senior students are most likely to give advices on revision strategies that are relatable to their student peers as compared to lecturers. 14 Tutees may feel comfortable discussing their problems and worries in a comfortable and friendly environment of peer assisted learning and tutors also explain well at understandable level of tutees. 15.

RESULTS

Sixteen papers were qualified for inclusion, and fourteen of them (87.5%) were deemed to have enough and full data for a systematic review. In nine of these trials (or 64%), test scores and skills significantly improved. Four (28.5%) of these research showed a higher level of motivation and self-assurance in the real world. Only one study out of all of these revealed no discernible difference between the PAL group and control group.

MATERIAL AND METHODS STUDY DESIGN:

A systematic review was conducted in accordance with Preferred Related Items for Systematic review and Meta-Analysis (PRISMA) guidelines.

STUDY DURATION:

The time limit for included studies was from 2018_2022.

SAMPLING TECHNIQUE:

Three databases PubMed, PakMediNet, and Science direct were used for conducting this review.

SAMPLE SELECTION:

Inclusion Criteria:

1. The Original research articles that explored the effectiveness of PAL in medical students exclusively and not in clinicians were included.
2. Cross sectional studies and randomized control studies were included.

Exclusion Criteria:

1. Commentaries, personal opinions and conference proceedings were excluded.
2. All the non-English articles were excluded.
3. Identified studies were uploaded on Mendeley and duplicates were removed.
4. The articles were extracted on the basis of title and abstract and full text articles were reviewed.



CONCLUSION

Peer assisted learning has gained significance over the last few years in this modern era of ever increasing knowledge and ever changing medical science. PAL, at the same level or in a senior-junior relationship, has been found to be a great instructional tool in terms of enhancing academic performance. Even more striking were the results obtained in enhancement of surgical skills. Although few studies found little or no improvement and some studies find a negative influence of PAL on learning, it can be concluded that PAL, though unconventional and unofficial, has proven to be beneficial to medical students. Moving forward, in order to adopt PAL as a formal instructional tool, further research is needed to solidify the statement.



LIMITATIONS

- 1) Study has insufficient evidence regarding effectiveness of PAL in improving academic performances due to lack of conclusive evidence in the referenced studies.
- 2) Data collection yielded a small sample of screened studies (n=16), so more research is required on this.
- 3) Comparison to expert assisted learning (EAL) was not present in all studies included in the review. Further studies should consider this comparative aspect of PAL.

KEY WORDS

Peer-assisted learning (PAL), Systematic review, Medical students.

