PRESENTATION 2

What is the Effect of a Peer-Teaching Programme at Medical School on Student Performance? A Systematic Review and Meta-Analysis

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Background

The practice of peer-assisted learning (PAL) at medical schools alongside the core medical curriculum has increased steadily in recent years. While it has been suggested that the learning environment peer-tutors and their students share allows concepts to be presented at the correct level, the efficacy of PAL relative to traditional teaching methods is not clearly defined.

Methods

A systematic review of randomised studies of PAL conducted in medical school was completed. A literature search was conducted in four databases and records were selected following strict eligibility criteria. Following full text assessment, two reviewers independently extracted data. The impact size of the study outcomes was assessed using a modified version of "Kirkpatrick's Levels of Learning". Student test scores were standardised by calculating the standardised mean difference (SMD).

Results

25 randomised controlled trials were included in this review. Meta-analysis of 19 articles identified a significant improvement in the academic performance of medical students who received PAL compared to those in the control group (SMD = 0.43 [95% confidence interval 0.07 – 0.80]; p=0.02). The impact of PAL was more marked amongst clinical than pre-clinical medical students, and when used for teaching practical skills compared to theory. PAL was also more effective than non-PAL methods in assessments run more than four weeks after course completion.

Key messages

Medical students taught using PAL derive objective benefit in terms of academic performance, relative to non-PAL teaching methods. PAL is of particular value in the clinical stages of training. The long-term outcomes of PAL remain understudied.

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