Problem-based learning in nurse education

BACKGROUND AND PURPOSE
► This is a summary of Sharma et al’s study.¹
► Problem-based learning (PBL) is a common learning strategy used in nurse education.
► During PBL, student nurses solve clinical scenarios and practice-based problems.
► Previous systematic reviews indicate PBL improves student nurse critical thinking, but the existing reviews are becoming dated and need updating with the latest research.
► The purpose of this systematic review and meta-analysis was to use the latest research to determine the effectiveness of PBL for student learning in nurse education.

METHODS

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<th>Inclusion criteria</th>
<th>Search strategy</th>
<th>Appraisal and analysis</th>
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<td>Quasi-experimental and randomised controlled trials using PBL</td>
<td>Search completed 2022</td>
<td>Critically appraised using Joanna Briggs Institute checklist and Risk of Bias tool</td>
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<td>Student nurses</td>
<td>Seven databases, Google Scholar and previous reviews</td>
<td>Meta-analysis using standardised mean difference</td>
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<td>Published in English</td>
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RESULTS AND AREAS FOR FUTURE RESEARCH
► The review includes 16 studies (published 2001–2021) and 1143 student nurses.
► Studies were quasi-experimental (n=10) and randomised controlled trials (n=6).
► PBL was delivered weekly (10–120 min) over several weeks (3–32 weeks).
► Control groups received traditional learning (n=7), lectures (n=6), demonstration (n=1), clinical learning (n=1) or no intervention (n=1).
► Studies were based in Iran (n=7), South Korea (n=5), China (n=3) and Taiwan (n=1).
► Outcome data included critical thinking (n=8 studies), problem-solving (n=3 studies) and self-confidence (n=3 studies).
► PBL improved student nurse critical thinking, analysis and evaluation more than other learning strategies.

TAKE HOME MESSAGES
► The systematic review and meta-analysis provides an important addition to the literature on PBL within nurse education.
► PBL can improve critical thinking skills, analysis and evaluation by student nurses and may be more effective than traditional learning strategies.
► The value of PBL for improving student nurse problem-solving and self-confidence is less clear and needs further exploration.
► Limitations in the review include the small number of countries involved, the focus on certain learning outcomes and the limited information about how PBL was delivered.
► More research is needed to fully understand the value of PBL in nurse education.

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Evidence for nurse education

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Reference