

The Effectiveness of Simulation on Nursing Students' Clinical Reasoning-Related Skills

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Background

Highly developed clinical reasoning in nursing is an essential skill for the provision of safe and quality healthcare for patients. However, this is difficult to teach and learn as it is tacit, complicated and at times, intangible. There is therefore a risk that graduate nurses may have poor clinical reasoning skills which can impact on provision of effective and safe healthcare for patients. High-fidelity simulation (HFS) is used widely to educate healthcare professionals, but its effectiveness in teaching undergraduate nursing students clinical reasoning skills is not known.

Results

- 1228 titles and abstracts screened and 15 studies were included.
- Methods and outcomes varied therefore no meta-analysis was conducted.
- No studies investigated the use of HFS for paediatric courses.
- Statistically significant results favoured HFS groups in the following outcomes: clinical reasoning skills (4/4 studies), critical thinking skills (4/8 studies), problem-solving (2/4 studies), decision-making skills (1/2 studies), and clinical judgment skills (2/2 studies).

Figure 1. Clinical reasoning interchangeable terms

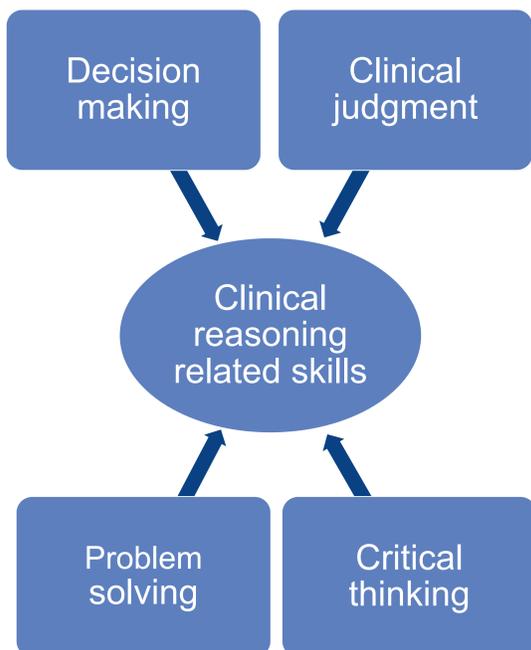
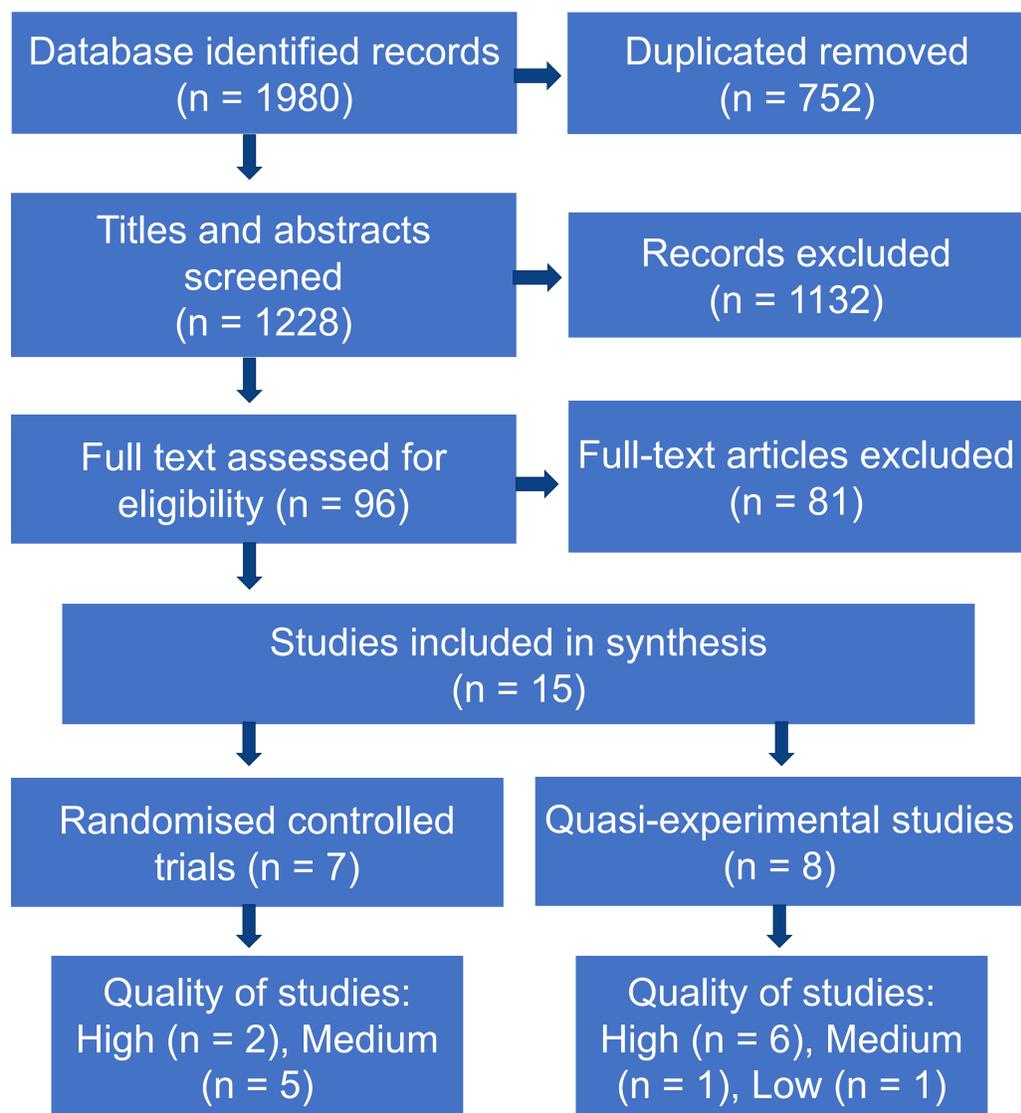


Figure 2. High-fidelity simulation



Figure 3. PRISMA Flow Diagram and Quality Rating



Aim

To conduct a systematic review to synthesise available evidence regarding the effectiveness of HFS compared to traditional teaching/ other simulation on undergraduate nursing students' acquisition of clinical reasoning-related skills.

Method

Systematic review guided by Joanna Briggs Institute methodology and including experimental and quasi-experimental studies published in English between 2014 and 2020. Databases searched included Medline, CINAHL, Embase and the Joanna Briggs Institute Evidence-based Practice database.

Conclusion

- HFS was effective alone and in combination with traditional teaching or other simulation types.
- Future research is recommended to study the effectiveness of HFS in teaching paediatric nurses' clinical reasoning skills.

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