

Effectiveness of Small Group Learning in Postgraduate General Practice Education: A Systematic Review

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Introduction

- Small group learning is commonly used in general practice (GP) postgraduate training and continuing medical education.
- Several previous systematic reviews have looked at the effectiveness of small group learning in continuing medical education and found mixed results.
- A review of the literature did not reveal any previous systematic reviews looking specifically at the effectiveness of small group learning in general practice postgraduate education.

Objectives

To systematically identify the evidence relating to the effectiveness of small group learning in general practice postgraduate education and to appraise and synthesise it to answer the research question and highlight areas for future research.

Methods

Search Strategy

Ovid Medline, EMBASE and ERIC were searched from inception until July 2015. Reference lists of included studies were examined to identify any further potential studies for inclusion.

Selection Criteria

Experimental, quasi experimental and observational evaluation studies that reported an objective measure of participants' knowledge, professional practice or patients' health.

Data collection and analysis

Predefined relevant data was extracted from the included studies. Quality assessment was performed on the included studies using a quality assessment tool. A narrative synthesis was performed.

Results

Seventeen studies were identified for inclusion. Ten studies measured participants' knowledge as an outcome, 9 studies measured professional behaviour and 1 study measured patients' health.

Table 2: Results of studies reporting change in professional practice as an outcome

Study	Statistically significant findings in favour of small group learning?
Small group learning versus no intervention	
Casebeer et al.1999	No
Davis et al.2004	Yes
Figueiras et al.2001	Yes
Gongora-Ortega et al.2012	No
Herbert et al.2004	Yes
Richards et al.2002	Yes
Small group learning versus another teaching method	
Figueiras et al.2001	No
Gongora-Ortega et al.2012	No
Small group learning – pre and post design	
Murrihy et al.2009	Yes
Small group learning – 2 arms acting as controls for each other	
Lundborg et al.1999	Yes
Verstappen et al.2003	Yes

Table 1: Results of studies reporting change in patients' health as an outcome

Study	Statistically significant findings in favour of small group learning?
Small group learning versus no intervention	
Casebeer et al., 1999	Yes

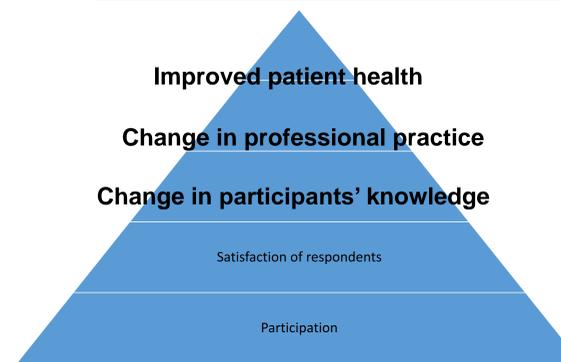


Figure1: Kirkpatrick's Hierarchy

Table 3: Results of studies reporting change in participants' knowledge as an outcome.

Study	Statistically significant findings in favour of small group learning?
Small group learning versus no intervention	
Gongora-Ortega et al.2012	No
Marshall et al.2001	Information not available*
Premi et al.1994	Yes
Small group learning versus another teaching method	
Chan et al.1999	No
Doucet et al.1998	Yes
Gongora-Ortega et al.2012	No
Stephen et al.2011	Yes
White et al.2004	No
Small group learning – pre and post design	
Borduas et al.1998	Information not available
Davis et al.1999	Information not available
Murrihy et al.2009	Yes

Conclusions

- Fourteen of the 17 studies included in this review reported at least one outcome in favour of small group learning, and in 12 of these the author provided information demonstrating the statistical significance of the results.
- Studies varied greatly in terms of the types, duration and frequency of intervention, the nature of the control group, sample size, settings and topics covered.
- Demonstrating the effectiveness of small group learning in a heterogeneous group of studies like these may make the findings more generalisable, suggesting small group learning is effective in a wide variety of contexts.
- Gaps in the reporting of information regarding the intervention in some studies makes it difficult to dissect out important factors giving the method its value.
- There was insufficient information in the reports of the included studies regarding study quality which made a meaningful comparison of studies based on quality impossible.
- Thus, while this review may suggest that small group learning can be effective in postgraduate general practice education, the results should be interpreted with caution and further research is needed.

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