

Building Capacity for Education Scholarship among Clinical Educators: A Best Evidence in Medical Education (BEME) Systematic Review of the Interventions



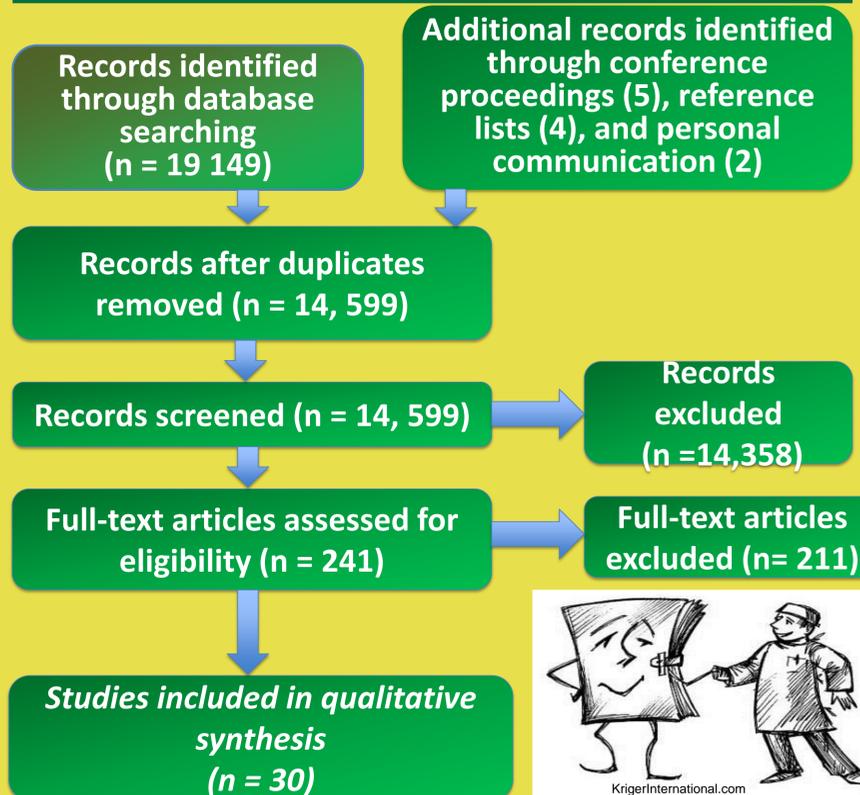
Rabia Ahmed (MD, FRCPC), **Ameer Farooq** (MD Candidate), Dale Storie (MLIS, MA), Lisa Hartling (PhD), Anna Oswald (MD, MMed, FRCPC), Liam Rourke (PhD)

BACKGROUND

- The launch of the Best Evidence in Medical Education (BEME) Guides in 1999 reflected a growing desire for evidence-based practice.
- Many interventions have been developed to generate capacity for educational research among clinical educators, but no comprehensive synthesis has been conducted.
- The purpose of our systematic review is to identify the effectiveness of interventions to build capacity for educational scholarship among clinical educators.

INTERVENTION TYPE	N
Medical Education Fellowship or Masters	7
Teaching Scholars Program	10
Medical Education Writing Group	2
Medical Education Scholarship, Award or Grants	4
Faculty Development Medical Education Initiative	3
Medical Education Research Groups/Academies/Offices	3
Mixed Intervention	1
TOTAL	30

Flowchart of Systematic Review Process



METHODS

- A systematic review protocol was peer reviewed and prospectively registered with BEME.
- A comprehensive search of relevant electronic databases and grey literature was conducted.
- Systematic methods were applied to studies for inclusion, data extraction, methodological quality assessment and data synthesis.

	Inclusion Criteria
Population	Health professions educators who are academic clinicians ("clinical educators")
Intervention	Systematic initiatives that are reproducible
Outcomes	Changes in products or behaviour around scholarship Change in knowledge Change in attitudes/self-perception
Research design	Any studies which include primary data for above outcomes

RESULTS

- While all studies include clinical educators, many studies had mixed groups that also included participants from basic science and administration.
- 12 studies reported changes in participant perception (surveys, interviews).
- 3 studies report changes in knowledge or skills.
- 23 studies report changes in participant behaviour (CV analysis, publications/posters, grants, networking analysis).
- Study designs include 5 pre-post, 20 post only, 5 report combination of post only and pre-post.
- All studies but 1 (a TSP study) report positive results.
- The highest level of outcomes reported were changes in behaviour (Kirkpatrick level 3, n = 23). However most were low quality post test only designs (n=17).
- Meta-analysis was not possible as most studies non-comparative.

ACKNOWLEDGEMENTS

Thanks to the University of Alberta Faculty of Medicine & Dentistry for providing a summer studentship to Ameer Farooq and the Teaching Scholars Program for supporting Rabia Ahmed.

DISCUSSION

- The majority of studies in this area were uncontrolled pre-post or post test only designs.
 - None had an external comparison group.
- The weak designs prevent inferences about causation or association
 - Unable to rule out confounding of results simply by increased experience or time
- While all authors reported positive conclusions, comparison between interventions was not possible
- Strongest designs (pre-post) were for the following interventions: medical education masters/fellowship, teaching scholars program, and faculty development.

CONCLUSIONS

- Faculty developers may consider focusing on the interventions described to create an improved model for promoting educational research
- Despite reporting of behavioural outcomes, higher quality study designs are needed to support the preliminary findings of the many lower quality included studies
- Additional research needs to be done on both the best methods for building capacity in educational scholarship and for doing research in this area to more fully inform future initiatives

