Reviewer's report

Title: Functions of behavior change interventions when implementing multi-professional teamwork at an emergency department: a comparative case study

Version: 1 Date: 4 February 2014

Reviewer: Monika Kastner

Reviewer's report:

Summary
Evidence shows that working in multi-professional teams may have positive effects in health care contexts. However, this is challenging and most studies have used education and training as the main implementation strategy. Authors posit that implementation of teamwork should combine multiple behavior change interventions (BCIs) as staff training, physical changes to the work environment and management support. However, the effects of BCIs vary, and the mechanisms behind behavior change are unknown, which makes it difficult for decision makers to optimize their resources for implementation. Authors set out to increase understanding on how and why BCIs influence behavior as few studies in health care report a theoretical rationale for their choice of BCIs. They conducted a comparative case study aimed at analyzing functions of BCIs using applied behavior analysis (ABA) and the DCOM model (Direction, Competence and Opportunity); and to analyze the influence of these interventions on teamwork behaviours at two sections of an emergency department. Overall, this work is interesting, but the paper needs further clarity, particularly in the Methods section. I have outlined some comments and suggestions that may be considered to strengthen this manuscript.

Background
# Authors provide a nice introduction and describe existing theoretical behavior change models. However, they missed the “theoretical domains framework”, which is an important, validated framework that should also be included in the discussion; here's the reference:

Methods:
# Authors indicate using a comparative case study design, but they should explain what this is and why it was selected as their methodology to answer their questions
# They should also explain how the current study is related to the larger project in the ED setting
What is the study period?

Teamwork intervention:

How was the teamwork intervention developed?

Who was involved in this?

Was there a pilot?

How did they operationalize “changes in work processes that enhanced inter-professional collaboration”?

Implementation of the teamwork:

It is not clear what authors mean by “free to choose behavior change interventions”

Authors should explain why teamwork was abandoned after a summer break

This section needs further clarity in terms of what the a priori implementation plan was, what was actually done, and where and when; and what worked/didn’t work at each setting

Data collection:

Figures and diagrams are not numbered so it’s not clear which figure authors are referring to

What determined how many observations should be undertaken? (i.e., a total of 76 observations took place at general surgery and 68 at internal medicine)

How did they select participants for the semi-structured interviews? (i.e., purposive, etc?) Was the interview guide pilot tested?

It appears that they tested a further 7 people after the first 4, which sounds like snowball sampling – this should be indicated

Data analysis:

It’s not really clear how the data was analyzed: What is a “hybrid thematic analysis”?

How was data organized and managed? Was any qualitative software used to assist in the analysis of data (e.g., NVivo)?

Who are these “external consultants” who were approached to corroborate the results of the analysis?

What documents were used to triangulate the interview and observational data? How was this done?

Results

The results are a bit confusing, and if this work was aimed at decision makers, I don’t see how this inform them – it may help to organize findings according to the observational piece and then the interviews and then focus on the important pieces (presumably from the triangulation)

Results are compared between ED sections, but I didn’t think this was part of the research question
Discussion

# The discussion refers to the methods as qualitative, but this is not how it is described in the methods – in fact, much of the description here could be moved to the methods

# What are the next steps?
# What are the implications to practice? How can decision makers apply this knowledge?

**Level of interest:** An article of importance in its field

**Quality of written English:** Acceptable

**Statistical review:** No, the manuscript does not need to be seen by a statistician.

**Declaration of competing interests:**

I declare that I have no competing interests.