Reviewer’s report

Title: COMMUNICATION SKILLS INTERVENTION: PROMOTING EFFECTIVE COMMUNICATION BETWEEN NURSES AND MECHANICALLY VENTILATED PATIENTS

Version: 0 Date: 27 Jun 2017

Reviewer: Mary Beth Happ

Reviewer’s report:

This paper describes a series of workshops developed to train ICU nurses in Botswana to better communicate with their nonspeaking, mechanically ventilated patients. The workshops included low tech, augmentative and alternative communication tools specific to the medical context and language of the participants. The authors address an important and pervasive problem in the care of mechanically ventilated patients worldwide. The approach seems to be deliberative, phased development of a training program for nurses in Botswana using three workshops arranged in 1-hour content sessions followed by feedback and practice (1 hour) for a total of 6 hours of training. The intervention program is described in some places as seminars and in other places as workshops - consistent language would help. The work in program development and evaluation on this topic is commendable, however, the presentation is disjointed and incomplete. The paper lacks organization (see specific comments below) and attention to details particularly in background, method and results. There are many errors in grammar, word form (plurals versus singular) and word choice throughout. Specific comments are presented below.

Abstract:

Aim was to develop a nurse training intervention program. Methods refers to case study design but it is unclear what this is a case study of - the workshop training experience? Case record is not a method of analysis.

Line 21 refers to eight workshop sessions but Table 1 only shows 6 sessions. Results section in the abstract is more conclusion than data presentation or summary

Conclusion lines 35-38 The term should be "augmentative" not augmentation

Background - the literature review is sparse and incomplete. References 2, 4, 5 are particularly weak and there are no evidence-based references provided for development of the intervention content, yet that literature does exist and has been used and described in the development of similar training programs.

Conceptual framework - While the stated aim is to develop a communication training intervention for nurses, the conceptual framework section includes development of AAC devices. Is development of AAC devices a second aim? It should not be placed here but in a
section describing the training program with in text reference to Table 2. It's great that the AACN synergy model guided development of the training intervention, but linkages between the training program and the 8 tenets of the AACN Synergy model are not provided.

Pg 3 Line 3 what is a practice method? Do the authors mean that they observed the nurses in practice or that the nurses practiced the communication techniques in some simulation and were observed or did the nurses try to apply the training in clinical setting and reported back? Observational data and how it was obtaining and analyzed is not described.

Pg 3 line 8 Setting needs more description for the reader to assess transferability of findings. The ICUs were chosen because they were large and served a large number of patients. How many beds or daily census, what case mix, how many mechanically ventilated patients per year? What is the nurse: patient ratio? What is the critical care medicine model - open or closed unit?

Instruments - AAC devices are not instruments in the research sense unless they were data collection tools… rather, these seem to be part of the intervention

Sample - purposive selection of nurses on what characteristics other than the stated inclusion criteria? Was there purposeful selection of a range of experience, age, gender, educational preparation or some other characteristic? Demographic characteristics of the sample (age, gender, work experience in years) is not provided.

Why was the teaching guide shared with nurse managers and nurses before training? Was this to get their input? Who actually delivered the training?

Data collection - information in this section includes a description of the training program and procedures. This would be better placed in a separate section detailing the intervention/ training program.

Line 5- 7. "Pretest interviews were conducted before the actual data collection" is a confusing statement. Interviews are a form of data collection. Do the authors mean that interviews were conducted before implementation of the training program? At what other time points were interviews conducted, how long were the interviews, and what was the purpose of the interviews - to provide input into the content and/or design of the workshops? A formal, objective measure of skills achievement is not provided.

Data analysis methods require further detail. What case record method is not an analysis method. Do the authors mean qualitative case analysis methods (cite reference?) how was coding conducted? Who conducted coding and What methods were used to ensure trustworthiness? Member checking involves more than just checking accuracy of transcripts, it also requires checking qualitative analysis and interpretation.

Results section (p4) seems to describe the intervention rather than the findings. This was a series of 3 workshops divided into six 1-hour sessions, two sessions per workshop.
The content of the program described on pg 5 Table 1, Content of the seminars, is similar to the communication training program and AAC materials intervention developed and implemented in the Study of Patient-nurse Effectiveness with Assisted Communication Strategies (SPEACS) study first described by Happ, Sereika, Garrett & Tate, 2008 Contemporary Clinical Trials publicly available at [https://www.ncbi.nlm.nih.gov/pubmed/18585481](https://www.ncbi.nlm.nih.gov/pubmed/18585481) with results published by Happ, Garrett, et al, Heart & Lung, 2014; 43(2):89-98 and publicly available [https://www.ncbi.nlm.nih.gov/pubmed/24495519](https://www.ncbi.nlm.nih.gov/pubmed/24495519).


The content is also very similar to the content in the SPEACS-2 online program (Happ et al, Heart & Lung, 2015; 44(5):408-15 [https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4053558/]). Yet these studies are not referenced or acknowledged. If this was an adaptation for nurses in Botswana or the Botswanian context, that should be described. At minimum, a comparison would be a helpful addition to the background and/or discussion section.

Pp 4-5. Results. Qualitative findings are not presented as identified themes or categories. Although multiple data sources were used in the study, the only sources presented in the results seem to be qualitative comments from nurse participants. are any data from the Pre-intervention interviews presented here?

The Tables are helpful and clear but should be referenced in text earlier in the manuscript.


The discussion section could be strengthened by comparison to existing literature and showing how this training program and study fit and add to the science.

**Are the methods appropriate and well described?**
If not, please specify what is required in your comments to the authors.

No

**Does the work include the necessary controls?**
If not, please specify which controls are required in your comments to the authors.

Unable to assess

**Are the conclusions drawn adequately supported by the data shown?**
If not, please explain in your comments to the authors.
No

Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

Not relevant to this manuscript

Quality of written English
Please indicate the quality of language in the manuscript:

Not suitable for publication unless extensively edited

Declaration of competing interests
Please complete a declaration of competing interests, considering the following questions:

1. Have you in the past five years received reimbursements, fees, funding, or salary from an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?

2. Do you hold any stocks or shares in an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?

3. Do you hold or are you currently applying for any patents relating to the content of the manuscript?

4. Have you received reimbursements, fees, funding, or salary from an organization that holds or has applied for patents relating to the content of the manuscript?

5. Do you have any other financial competing interests?

6. Do you have any non-financial competing interests in relation to this paper?

If you can answer no to all of the above, write 'I declare that I have no competing interests' below. If your reply is yes to any, please give details below.

I hold copyright to the SPEACS-2 online training communication training program developed for nurses to improve communication with mechanically ventilated patients and other patients with communication impairments in the acute - critical care setting. I was principal investigator on the SPEACS and SPEACS-2 studies. I was approached several years ago via email by the lead author of this manuscript about our SPEACS work and provided reference list and brief study description.
I agree to the open peer review policy of the journal. I understand that my name will be included on my report to the authors and, if the manuscript is accepted for publication, my named report including any attachments I upload will be posted on the website along with the authors' responses. I agree for my report to be made available under an Open Access Creative Commons CC-BY license (http://creativecommons.org/licenses/by/4.0/). I understand that any comments which I do not wish to be included in my named report can be included as confidential comments to the editors, which will not be published.

I agree to the open peer review policy of the journal.