Author's response to reviews

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

Authors:

KS Dithole (oyedeoa@unisa.ac.za)

Gloria Thupayagale-Tshweneagae (tshweg@unisa.ac.za)

Oluwaseyi Akpor (akporoa@abuad.edu.ng)

Mary Moleki (Molekmm@unisa.ac.za)

Version: 1 Date: 03 Aug 2017

Author's response to reviews:

AUTHOR'S RESPONSE TO REVIEWS

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

Authors:

K.S. Dithole (Ditholek@mopipi.ub.bw)

Gloria. Thupayagale-Tshweneagae (tshweg@unisa.ac.za

Oluwaseyi A. Akpor (akporoa@abuad.ac.za)

Mary M. Moleki (molekmm@unisa.ac.za)

Version1: Date: 01/08/2017

Authors' response to reviews:

Reviewer 1: Carina Isabel Ferreira Martinho

1. The present study reports a very important study regarding the communication process in ICU's. Nevertheless is important to address some aspects regarding the theoretical content.

The theoretical framework has been deleted and more information was added to the introduction.

2. In Background the author's should mentioned that it's possible to evaluate communication difficulties in this specific context by qualitative methods or quantitative methods, for example using the instrument "Ease of Communication Scale" developed by the Professor Linda Menzel.

3. In Background and in Discussion the author's should mentioned the importance of a multidisciplinary team include a Speech and Language Pathologist, because it's the professional responsible for the communication and AAC and in certain patients your role is crucial for a well-succeed intervention, like is referred in many published studies.

We have addressed this comment in the second paragraph of the introduction the paper:

Traditionally, communication skill training did not include nurses and was provided to other health care professionals such as physicians [3]. This is despite the fact that the nurse is the team member who is continually at the patient's bedside within the multidisciplinary team which include physicians, speech therapist, physiotherapist, dieticians and other health allied professionals. Other members of the multidisciplinary team concentrates on their specific during the limited time spend with patients [4]. During this encounters communication with patients and or their families is often neglected and ineffective.

4. It is also important to refer that patients with severe language deficits like aphasia and the illiterate patients could not use word and alphabet board's and the staff needs to be able to adapt and adjust the ACC devices.

5. Keywords - The keyword "Botswana" is redundant and it isn't specific for theme of the study and should be replaced for "AAC".

Keywords corrected, Botswana replaced with Augmentative and alternative communication.

6. The author's should revise the manuscript with a help of native English speaker. Many small errors were detected, like in Background, line 2 ("mode") and line 4 ("allays").

The sentences has been replaced.

Table 2 - It's important to clarify how was made the selection of the photos for the photo boards. What kind of photos you select? In colors? In Black and white? With white background?

It's also important to clarify same characteristics for the word board, word phrases and alphabet board (font size, color size, color of background…).
Table 2 has been deleted

Reviewer 2: Mary Beth Happ

1. 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 word seminar was replaced with workshops all through the document.

2. 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. Method 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.

Method in the abstract has been corrected as follow:

A convenient sample of twenty intensive care nurses participated in the study. Data was collected through multiple sources, which were transcripts of six sessions of workshops;' interviews with nurses and field notes from observations of nurses applied in practice what they learned during the workshops. Data from the interviews were analysed using qualitative thematic content analysis.

3. Results section in the abstract is more conclusion than data presentation or summary. Conclusion lines 35-38 The term should be "augmentative" not augmentation.

The comments were corrected as below:

Five themes emerged as: acceptance of knowledge and skills developed during workshops; appreciation of augmentative and alternative communication (AAC) devices; change in attitudes; need to share knowledge with others and inclusion of communication skills workshop training as an integral part of an orientation package for all nurses.

Conclusion: The findings of this study are similar to a study conducted in the USA on nurse patient communication which also showed that the application of augmentative and alternative communication devices and strategies can improve nurse-patient communication in intensive care units. Therefore the implementation of communication skills training for intensive care nurses should constantly be encouraged.

4. 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.

Introduction corrected, new information added with recent citations. The above referred references were deleted.

5. 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.

Conceptual framework and Table 2 deleted. Relevant information added to the introduction and a separate section describing the training workshops added.

Brief summary of the intervention

An interactive workshop was placed for the intervention that involved role play, return demonstration, group discussion and exchange of experiences by nurses. The role plays were based on developed scenarios that were adopted and adapted from [13]. The scenarios included communication during intubation, suctioning and tracheotomy care. Emphasis was based on assessment for ability to communicate before role playing in order for participants to check which of the AAC devices would be appropriate. The researchers adopted the strategy of conducting workshops because previous studies in the area of communication in the ICU found workshops to be useful tools to empower nurses with the appropriate communication techniques [14]. During the training more than one method was used, including presentation of contact materials, simulation, demonstration and return demonstration and practice. A lesson plan outlining the intervention is in Table 1.

6. 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

Setting under method on page 3 and 4 was revised as indicated below:

Setting

Two Intensive care units were chosen from two selected referral hospitals in Botswana. The hospitals were purposively selected, based on the large size of their ICU units, the vast number of patients treated as well as for geographic diversity. The two ICUs admit patients from all over the country. Each ICU admits an estimated number of 2095 patients a year, which includes both adults and children. Each ICU has 8 beds and has a mortality rate of 3.6%. Ten percent (10%) of patients admitted in the ICUs are younger than 18 years. The majority of patients (1836 per year) admitted in the ICUs are adults [12]. All patients admitted in the units are mechanically ventilated. The nurse: patient ration is 1:2. Only 2 close family members are allowed to visit patients during a 1 hour visiting time, for 3 times per day.

7. 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?

The above comments was rewritten as below:

Sampling

Convenient sampling technique was used to recruit ten nurses from each hospital.

8. Demographic characteristics of the sample (age, gender, work experience in years) is not provided.

Demographic data was added as indicated below:

Demographic data

Ten nurses from each ICU (N=20), 12 Females and 8 Males. Their age ranged between 25 – 51 years, and their years of experience working in the ICU ranged between 1 – 6 years. Of these nurses 84% held the Diploma in Nursing and 16% held Bachelors of Nursing degree.

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

Necessary information added

10. 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.

The above comment was addressed as indicated above (Reviewer 1).

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.

Detailed of the implementation provided as shown above (Reviewer 1)

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.

Data analysis was revised as stated below:

Data analysis

Data analysis was done simultaneously with data collection. Data from the interviews were analysed using qualitative thematic content analysis [15]. The interview text was analysed in several steps, starting with naïve reading of texts. The texts were divided into meaning units and statements that relate to the central meaning and objectives of the study. The meaning units were condensed, abstracted and labelled with codes, which were compared for similarities and differences to develop themes. Transcripts were transcribed verbatim and scripts were given to some participants to validate the information.

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 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) 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 .

The content used in the SPEACS training program was also published in D.R. Beukelman, KL Garrett & KM Yorkston (eds). Augmentative Communication Strategies for Adults with Acute or Chronic Medical Conditions. Baltimore, MD: Brookes Publishing Co, 2007. Chapter 2 "AAC in Intensive Care Units," Garrett, K.L., Happ, M.B., Costello, J., & Fried-Oken, M.

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.

The results section of the manuscript was revised as indicated by the reviewer

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?

Results rewritten and themes added

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

Nurse responses/participant comments to the training are also similar to data previously presented from focus groups conducted with nurses who participated in SPEACS training (Radtke et al, 2012 Intensive Crit Care Nurs. 2012 Feb;28(1):16-25 and publicly available https://www.ncbi.nlm.nih.gov/pubmed/22172745.

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.

Discussion section of the manuscript was revised and recent citations added.