Author's response to reviews

Title: Developing counseling skills through pre-recorded videos and role play: a pre- and post-intervention study in a Pakistani medical school.

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Author's response to reviews: see over
Title: Developing counseling skills through prerecorded videos and role play-a pre- and post-intervention study in a Pakistani medical school.

Authors’ reply to comments by reviewer Marta Van Zanten made available on August, 14 2009.

Thank you for reviewing our manuscript and giving us your feedback. Your comments have indeed been helpful in revising this manuscript and making it more understandable to the reader. Please find below a step by step response to your comments.
**COMMENT:** In the Introduction, it would be interesting if the authors would expand on the topic of the shift from paternalism to shared decision making in health communication in Pakistan. Is this a well adopted shift? Do most patients and doctors now prefer this type of patient-centered communication, or is it based on factors such as age of patients and doctors, rural versus urban, gender, etc.?

**REPLY:** As suggested, a paragraph has been added to the introduction that explains the response of both health care providers and seekers, to the shift from paternalism in Pakistan.

“Although traditionally centered on paternalism, healthcare in Pakistan is gradually evolving into a more individual centered model. This change has been a recipient of mixed response from both care-givers as well as seekers in our setup. In a system where physician-patient communication is invariably hampered by factors like illiteracy, ignorance, poverty, hierarchical family structure and male dominance, an immediate switch to complete patient autonomy is not possible. In the transitory phase most doctors are trying to maintain a balance between autonomy and paternalism [5, 6].”

**COMMENT:** In the Methods section, the order of events is not clear. The last two sentences of the second paragraph of the Methods section describe students practicing counseling skills and being observed. Then the third paragraph describes the making of the training videos. It would be easier for the reader to understand the study if the description of the development of the tool came before the description of how the tool was used.

**REPLY:** The order of events has been rearranged in the Methods section. The development of tools utilized for the study now precedes the description of how they were utilized.

**COMMENT:** In the Results section, the authors describe a DOS checklist which was used to measure counseling skills in a real life setting. A description of this rating tool and how this part of the study was implemented belongs in the Methods section. Also, it is unclear if the DOS checklist is the exact same checklist or a different checklist than what was used to measure communication skills in the OSCEs. If the checklists are not the same, the comparison between the two scales of percentage correct may not be appropriate.

**REPLY:** The description of DOS checklist has been moved to the Methods section. Furthermore, it has been explained that the checklist used in real life settings was similar to the one that had been used earlier on in the OSCEs. See Methods:

“Moreover, one actual real-time student-patient interaction in a clinical or community setting was randomly selected out of the post intervention group for each counseling topic and graded with the same checklist that had been used earlier in the OSCEs (Direct Observation through structured checklist DOS).”

**COMMENT:** Finally, the figures are not really necessary since the same data is presented in the text.

**REPLY:** The figures were added to give a graphical representation of the study results for the ease of the readers. We do agree to the fact that they become redundant since that information is already presented in the Results section. The second reviewer, Lynn Y. Kosowicz has suggested the addition of p-values and n’s to the figures, which has been done. Please review our edited version of the figures and let us know if you still feel they should be removed or changed.
EDITORIAL COMMENTS:

1. The use of ampersands (&) is not appropriate in general text. I would suggest changing the numerous instances of “&” to “and”.
REPLY: Ampersands (&) have been changed to ‘and’ in the text.

2. In the Methods section, the acronym ECFMG is used without explanation.
REPLY: In the Methods section an explanation precedes the use of ECFMG acronym.

“The assessment checklists had been prepared using the Education Commission for Foreign Medical Graduates (ECFMG) scoring criteria for interpersonal skills in clinical skills examination.”

3. In Figure 3, it is more appropriate to label the genders of medical students as “males” and “females” or “men” and “women” rather than “boys” and “girls”.
REPLY: The labels have been changed in Figure 3.

4. A few additional typos noted throughout (incorrect or missing words, missing punctuation, misspellings, etc.)

REPLY: The manuscript has been reviewed again and an effort has been made to correct the typos that could be identified. If the reviewer still feels there are errors please let us know and we will correct them as well.
Authors’ reply to comments by reviewer Lynn Y. Kosowicz made available on August, 12 2009.

We are grateful for your feedback on our manuscript. We have endeavored to address all the issues and make the necessary changes to the best of our abilities and we hope that it will now be acceptable for publication. Please find below a step by step reply to your comments.
Major Compulsory Revisions:

COMMENT: The major deficiency identified by this reviewer is the lack of a control group, which makes attribution of any changes in performance to the intervention less robust. This is not addressed by the authors.

REPLY: It has been rightly pointed out that the issue of a control group was not addressed in the manuscript. The following comments have been added to the discussion in an attempt to make it clear why it could not be done.

“Due to the ethical concern of depriving students of an exercise that had been officially made part of the curriculum it was not possible to establish a true control group. The selected students, before intervention served as their own control. Being an independently planned and funded study, the ideal randomized control multi-centric trial could not be executed. The findings from this study are invaluable still, and can serve as the basis of conducting a more elaborate one in future.”

COMMENT: The post assessment was conducted 6 months after the intervention. This delay could allow for an interesting assessment of retention of what was learned in the intervention, but it also allows for many other possible intervening influences on the outcome (e.g. perhaps it was the newly instituted Community Medicine rotation alone that influenced performance).

REPLY: The reason for carrying out a post-intervention assessment six months later was to eliminate the effect of a newly instituted rotation alone and evaluate without bias the long term retention of the skills that had been demonstrated to these students. A reliable reference available supporting this decision has been quoted in the main text; United Way of America’s Task Force on Impact. **Measuring Program Outcomes: A Practical Approach** 15th ed. United Way of America Publishing Service; 1996.Pg. 96 “At what milestones should data be collected?” It is stated that as a rule of thumb, programs should collect follow-up data at approximately six to twelve months after a participant enters or completes service. The best outcomes to track in a program are the longer-term ones. Although other influences may have occurred in the participants’ life that will affect their responses

COMMENT: Limitations were not adequately addressed in Discussion (e.g. lack of control group, possible bias of observers in the pre and post intervention assessments, small sample size and possible sampling error given the small number of encounters assessed per participant).

REPLY: An explanation regarding the control group had been added as explained above. Further explanation has been added about the limitations of this trial including small sample size and error, please see Discussion.

“More importantly, the small sample size and limited number of encounters observed per student has also had an impact on the outcome. It is not possible to predict conclusively, the magnitude of the effect our intervention has had on the CIS of the selected students without a more robust experimental study. The next step should be to revise our medical schools curricula to include a regular CIS course and observe its effect on the performance level of students when all other confounding factors have been accounted for.”
COMMENT: The conclusions should be modified to reflect the uncertainty of the impact of the videos/role play on the reported results.
REPLY: As suggested by the reviewer, the conclusion has been modified as follows:

“Pre-recorded videos and role play are simple, cost effective and highly effective tools for demonstrating counseling skills to medical students. The exact magnitude of the impact of our intervention on the communication skills of students cannot be predicted, in view of the limitations. However, it still offers significant evidence towards successful implementation of a formal communication skills development initiative, under resource limited circumstances.”

Minor Essential Revisions:
COMMENT: Introduction, 2nd paragraph, line 9 "experimental" should be changed to "experiential"
REPLY: This change has been made. Please refer to Introduction 3rd paragraph, line 3.

“The perceived benefits of these methodologies are based on the work of Kolb & Fry who described four learning environments in their theory of experiential learning [10]”

COMMENT: Methods, 6th paragraph, line 7 "as shown in as well" should read "as shown, as well"
REPLY: The line has been changed to read as follows (refer to Methods Paragraph 4 line 3)

“All contained a common section on communication skills in addition to a variable number of specific clinical counseling points that the students were supposed to address.”

COMMENT: Methods, 8th paragraph, line 1 "There were only two categories of "done" and "not done" for each item" should read: "There were only two categories, "done" and "not done", for each item.
REPLY: The revision has been done.

“One mark was awarded for correctly performing each item on the checklist. There were only two categories, ‘done’ and ‘not done’, for each item (Fig.1)”

COMMENT: Discussion, paragraph 3, line 1 "Lack of resources to execute performance based assessment may be implied as one of the reasons of medical institutions not taking this initiative.” should be rewritten. Consider: "Lack of resources to execute performance-based assessment may be one of the reasons that some medical institutions have not taken this initiative."
REPLY: This change has been made. Please see Discussion.

“Lack of resources to execute performance-based assessment may be one of the reasons that some medical institutes in Pakistan have not taken this initiative.”

COMMENT: Conclusion: line 4 change "improvise" to "revise"
REPLY: Conclusion has been modified and the line containing this revision has been deleted.

Discretionary Revisions:

COMMENT: Methods, paragraph 2, Real patient encounters were observed and on-the-spot feedback was provided regarding their counseling skills. Who were the observers and what were the criteria used for the feedback?
REPLY: The four instructors selected and trained for the whole exercise carried out this assessment as well. Included in Methods Paragraph 6 line 3:
“Students were made to practice these counseling skills on real patients encountered during their visits to community clinics. These encounters were observed by the same facilitators using guidelines similar to the items inclusive in the assessment checklists. On-the-spot feedback was provided to the students.”

**COMMENT:** Methods: Who was responsible for completing the OSCE checklist assessments (the trained instructors who portrayed patients and physicians for the videos or other observers?) and what was their background? Were they aware of the study question and the intervention? Is there any measure of inter-rater reliability?

**REPLY:** The same instructors who had been trained earlier and who participated in the video recordings completed the OSCE checklist. They were all medical graduates with the minimum educational level of MBBS. Three out of the four were planning to pursue a career in community medicine. They were only provided with the necessary information of the intervention and assessment being part of the new curricular reforms introduced by the medical school. However, the exact nature of the study that was being conducted was not revealed to minimize bias. Inter-rater reliability was not tested on a scale; a crude measurement by periodic comparison of the checklists marked by different instructors was done in addition to allocating a single category per observer for all encounters for a particular batch of students. Methods section has been modified to include these details Paragraph 4 line 5:

“To minimize inter-rater disparity each instructor was given one specific category to grade, before and after intervention as well as in real clinical setting for one set of rotation. Additionally, the percentage of items checked by an assessor in different categories was compared periodically. The study question was not revealed to the observers to ensure unbiased assessment.”

**COMMENT:** Methods, paragraph 6, there is a statement that checklists were pretested the previous year- what does this mean and were there changes made after that pretest? If no significant changes were made to the checklists, were the scores of those students similar to the pre-intervention scores of the study subjects?

**REPLY:** The checklists had been pretested to assess their applicability in real settings, to gather baseline data about the level of communication and interpersonal skills of students of our institute that would help set a difficulty level for assessment and to see if anything needs to be modified for the actual study. The scores of the students were similar to the ones in the real study. The checklists were used unchanged. The only modification done was in the time slot given to students for performing the required task. Initially 7-8 min was kept for the encounter but based on our observations in this pretest we discovered that most students failed to cover the required points in the allotted time. Hence, it was increased to 10-15 minutes. A comment has been added in the Methods section as well.

“The checklists used had been pretested on students passing through fourth year in the previous year, to ascertain the feasibility of the study design. This group of students on an average scored similar to the pre-intervention group of the study. The checklists were subsequently utilized in the actual study without any change.”

**COMMENT:** Methods, paragraph 7, were real patients asked for consent to the video recordings? How many declined?

**REPLY:** Real patients were not asked for the video recordings. The reasons were several including additional financial resource that would have been required to pay a stipend to these volunteers, the extra time and training that had to be given before they would be capable of carrying out this exercise as most of the general patient population is uneducated; the two categories of breast-feeding and ante-natal care are sensitive social issues that majority of the patient population in our country insists on being handled
with utmost privacy and a consent for recording videos made available to both male and female medical students is not an easily acceptable option.

**COMMENT:** Results- I would like to see the variability and range of scores, in addition to mean scores

**REPLY:** Results have been modified to include mean scores, standard deviations and range.

**COMMENT:** Results- Would like to see a table of data for each of the 4 scenarios, in addition to the aggregate data for the 4 scenarios combined as shown in the graphs.

**REPLY:** Three tables have been added to the manuscript depicting the scores of the students in each of the four selected categories.

**COMMENT:** Participants included 41 females and 13 males, is this the typical mix for this medical school? For medical schools in other developing countries? (this may affect generalizability of results).

**REPLY:** Although not many reliable studies are available that give an exact ratio of male-female students in our medical schools there is a general trend towards female majority now-a-days. There are 2-3 times more female students enrolling in medical schools than male students. Some evidence is available that a similar trend is seen in other developing countries as well.


**COMMENT:** "SP" is used by ASPE (Association of Standardized Patient Educators) and USMLE as abbreviation for “standardized patient”. It is sometimes also used for “simulated patient”. Suggest using one of these terms, rather than “simulation patient”

**REPLY:** The term “simulated patient” is now used in the text instead of “simulation patient”. Please see Discussion paragraph 2, line 2:

“While simulated patient (SP) based evaluation is being widely implemented globally as a method of CIS assessment in regular and high stake medical examinations, most medical institutes in this part of the world do not have the finances and man-power to execute it.”

**COMMENT:** Discussion, 3rd paragraph, line 4 suggest rewriting "despite the deficiency of technological and staffing resources goes to proof that..." Consider: "despite the deficiency of technological and staffing resources, supports (or demonstrates) that..."

**REPLY:** This change has been made; please see Discussion 3rd paragraph and line 3.

“In addition, the successful incorporation of OSCE in the undergraduate medical curriculum by the faculty of National University at Cuyo, Mendoza, Argentina despite the deficiency of technological and staffing resources, demonstrates that initiatives can be taken in resource-limited environments as well.”

**COMMENT:** Discussion, paragraph 5, line 3 suggest rewording "Significant proof is available towards the utility of such an initiative and its contributions in producing more effective health care providers." Consider: "Significant evidence is available of the utility of such an initiative and its potential contribution to producing more effective health care providers."

**REPLY:** The suggested change has been made.

**COMMENT:** I would like to see N's and p values on Figures.

**REPLY:** The figures have been edited to include the N’s and p-values.
COMMENT: A couple of additional references that might be useful:


REPLY: The following references have been added to this manuscript:

