Peer Review Report

Review Report on Original article: Alcohol Screening and Brief Intervention in Primary Health Care in Kazakhstan -Results of a Cluster randomised Pilot Study

Original Article, Int J Public Health

Reviewer: Jacques Raubenheimer
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EVALUATION

Q 1 **Please summarize the main findings of the study.**

This study evaluates the execution of a pilot trial for an alcohol screening and brief intervenion in Kazakhstan. The pilot highlighted some problems encountered during the process which may be useful should a larger trial proceed, and showed some limited effectiveness of the screening (but less so for the intervention).

Q 2 **Please highlight the limitations and strengths.**

This was a well-planned study with a prior publication of their trial protocol. The authors mostly stayed to the direction provided in the previous publication of the protocol, which was good. The pilot study encountered some significant setbacks, such as the withdrawal of one of the PHCUs, and sadly, mitigation of this is not discussed in this paper. Why, for example, could another PHCU not be recruited, and what measures will they put in place in a larger trial to mitigate the impact of PCHUs withdrawing?

Q 3 **Please provide your detailed review report to the authors. The editors prefer to receive your review structured in major and minor comments. Please consider in your review the methods (statistical methods valid and correctly applied (e.g. sample size, choice of test), is the study replicable based on the method description?), results, data interpretation and references. If there are any objective errors, or if the conclusions are not supported, you should detail your concerns.**

Minor comments:
1. The paper could do with some language editing.
For example
P1L15: "There are a number of so-called "best buys" which are..."
P2L44 "The measure of pure alcohol per capita is regarded as a generalized indicator of policy effectiveness..."
P2L65 "resources"
P4L101 "chi-square"
P4L125 "non-participants"
P5L136 "One PHCU dropped out..."
P8L237 "Furthermore, 85.5% of the patients agreed that information about alcohol-related consequence is important for them (IG: 92.9%; CG: 83.3%; $\chi 2=0.88$, $p=0.928$) and 75.8% agreed that their physician should ask them about their alcohol consumption on a yearly..."
P9L256 "RE-AIM framework, the study provides valuable..."
P9L277 "PHCUs"
P10L295 "Previous studies have shown that..."
P10L297 "low-middle income countries..."
P10L302 "patients' ratings..."
P10L305 "within a time-restricted pilot..."
P10L209 "cannot be answered..."

2. The authors seem to be under the (regrettably common) misconception of what a Likert scale is (http://john-uebersax.com/stat/likert.htm). Perhaps they should refer to their scales as rating scales, Discrete visual analog scales (as per Ubersax) or ordered response scales.

3. I would like to see more information about the 6 PHCUs. For example, how far apart were they (could cross-contamination have occurred?), how many doctors and/or patients-on-average did they have (ranges might be good, if identification could be a problem).

4. Was consent obtained for the focus groups, especially those doctors who had declined to participate in the initial trial?

5. It would be good if the authors could relate their obtained numbers to those projected in their prior publication of the trial protocol, so that the major unexpected deviations are clear.

Major issues
1. Use of the AUDIT/AUDIT-C is complicated by the fact that participants with a score of zero are essentially non-drinkers. Mean AUDIT scores including these zero's could thus be a fair reflection of a population's drinking status as a whole, but even that is debatable. But it obscures information, for example, a population with many non-drinkers, few moderate drinkers, and some problematic drinkers might still have a relatively low mean AUDIT score, and the presence of the problem drinkers would be masked. A further problem with pre- and post-AUDIT scores is accounting for the inevitable few participants who move from zero to a defined AUDIT score, or from a defined score to zero. The nature of the AUDIT also implies that AUDIT score distributions are inevitably skewed, and so perhaps the median and IQR, instead of mean and SD, and using a non-parametric test instead of the t-tests, would be preferred.
Thus, more detail about the AUDIT scores, including how many non-drinkers were included, and what the median AUDIT scores were for the population as a whole, and only the drinkers (those with a non-zero AUDIT score). Also, proportions for both groups of zero, not-positive (1-3/4 depending on sex) and positive would be very helpful.

2. I feel that too little detail is provided about the analysis. Considering that this is a pilot, one of the major aims would be to test the analyses and ascertain whether the data as collected are suited to the analyses. Interestingly, the previous publication of the trial protocol does not contain some details of the analyses described here, although I do think the analyses hinted at in this paper would be more appropriate than those suggested in the previous publication. I suspect, from the note on Table 2, that their analysis was appropriate, but I would expect this to be described clearly in the text, not relegated to a table footnote (and with more detail). They should clearly indicate that they used an individual-level (not group-level) analysis and that they accounted properly for the clustered nature of the trial (which I suspect is the case).

3. The fact that one PHCU dropped out is an important occurrence, and I feel is not given sufficient treatment. One of the key things to know is the reason (if provided) so that this can be prevented in the future, if possible. Also, it is problematic that it appears as if the researchers employed to local health authority to order the PHCU to participate, to no avail--this could be seen as coercion. A further detail which is needed is why so few doctors participated in the training (and from the numbers provided, it seems as if the PHCU which dropped out already had very low uptake from its doctors).

4. The fact that noticeable differences were found between the patients from the IG and CG is an important confounder. The authors do not discuss this, and how a possible future trial might indeed create more balanced, but still randomised, arms.

5. If I understand supplementary table 1 correctly, the authors' statement that "The only noteworthy difficulty or barrier for performing ASBI was the lack of compensation for additional work and the rejection of some patients (supplement table 1). Too little time for delivering ASBI was not viewed as a significant problem by the physicians" seems incorrect--"too little time" had by far the greatest level of agreement.

6. I am not overly familiar with the RE-AIM framework, but I think the authors should give more thought to the fact that the control screening itself appears to have had an impact on drinking behaviour as well. Perhaps a

future, larger trial should consider some modification to more clearly tell apart the impact of the brief intervention from the impact of the screening (e.g., a third arm, so that there is an arm with no additional screening introduced, an arm with only screening, and an arm with screening and BI).

PLEASE COMMENT

Q 4 **Is the title appropriate, concise, attractive?**

Yes

Q 5 **Are the keywords appropriate?**

Yes

Q 6 **Is the English language of sufficient quality?**

Please use language editing.

Q 7 **Is the quality of the figures and tables satisfactory?**

Yes.

Q 8 **Does the reference list cover the relevant literature adequately and in an unbiased manner?)**

I am not sufficiently familiar with the literature in this field to answer. The reference list and citations generally are of good quality.

QUALITY ASSESSMENT

Q 9	**Originality**	
Q 10	**Rigor**	
Q 11	**Significance to the field**	
Q 12	**Interest to a general audience**	
Q 13	**Quality of the writing**	
Q 14	**Overall scientific quality of the study**	

REVISION LEVEL

Q 15 **Please make a recommendation based on your comments:**

Major revisions.