Reviewer's report

Title: Screening and brief interventions for hazardous and harmful alcohol use among hospital outpatients in South Africa: results from a randomized controlled trial

Version: 4 Date: 12 April 2013

Reviewer: Natalie Johnson

Reviewer's report:

Major Compulsory Revisions:
1. Methods (Sample size calculation) – May be incorrect. Until this point in the article, I thought the study outcome was a continuous variable (ie., AUDIT score). This calculation suggests that the outcome variable is categorical (ie., proportion of participants whose AUDIT score reduced).
2. Discussion (First para, second sentence) – In view of the results, the conclusion should be that “Self-reported outcome data suggests that screening and provision of a health education leaflet can reduce levels of hazardous and harmful ….”? and could be discussed in relation to similar findings, albeit in the primary care setting, reported by Kaner and colleagues (BMJ 2013;346:e8501) recently: http://www.bmj.com/content/346/bmj.e8501.pdf%2Bhtml

Minor essential revisions:
1. Abstract (Results) – The first sentence seems incomplete. Perhaps it should read: “Of the 1419 screened for alcohol misuse who agreed to participate in the trial, 392 (27.6%) screened positive for hazardous or harmful alcohol use on the Alcohol ….”?  
2. Abstract (Conclusion) – The first sentence in the conclusion seems odd given that it follows a sentence saying the intervention was statistically non-significant.
3. Introduction (Para 1, last 2 sentences) – Data on the proportion of adults in the general population who screen positive for hazardous or harmful drinking or possible alcohol dependence would aid comprehension of the information provided on the prevalence of these among outpatients in South Africa.
4. Introduction (Para 3, first sentence) – A reference regarding the number of outpatients treated in South Africa would be preferable here.
5. Methods (Measures) – The word “use” is missing from the name of the AUDIT but as it has been described in full already, the abbreviation “AUDIT” is sufficient.
6. Methods (Measures) - The cut-points for hazardous drinking (ie., 8-19 in men and 7-19 in women) should not overlap with the harmful drinking category (ie., 17-19). Based on my understanding of the AUDIT, the cut-points for hazardous drinking are 8-15 (and would be 7-15 for women using your approach) and 16-19 for harmful drinking.
7. Methods (Measures) – I’m still not clear when the primary outcome is assessed – is it at 6 months or 12 months (perhaps they are co-primary outcomes)?

8. Methods (Data analysis) – The phrase “6-month recall for alcohol use” seems odd. Is it meant to refer to the AUDIT or some other measure?

9. Results (Participant characteristics) – Why mention levels 2 and 3 here when they have been omitted elsewhere?

10. Discussion (Study Limitations) – I would prefer that the main outcome be described as “hazardous or harmful drinking” not “alcohol use” as the latter seems inconsistent with the information obtained from the AUDIT.

11. Discussion (Study Limitations) – Blood alcohol level is unlikely to be useful in this context.

12. Discussion (Conclusion) – Insert “or harmful” after “sample of hazardous ...”.

13. References: There is a typo in the title of reference 4, the title is not boldface type in reference 7, the title of reference 22 is only partially in boldface type.

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

**Quality of written English:** Needs some language corrections before being published

**Statistical review:** Yes, but I do not feel adequately qualified to assess the statistics.