Author’s response to reviews

**Title:** A study protocol: a community pharmacy-based intervention for improving the management of sleep disorders in the community settings

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**Author's response to reviews:** see over
Dear Editor-in-Chief,

Please find enclosed our manuscript, “A study protocol: a community pharmacy-based intervention for improving the management of sleep disorders in the community settings” (ID: MS: 1877168277769100) which we would like to resubmit for publication as a Study Protocol in BMC Health Services Research.

To our knowledge, this is the first study in Australia utilising actigraphy to identify the effectiveness of a community pharmacy-based intervention to improve sleep disorders at community pharmacy settings. We believe, although as a pilot and exploratory nature, this study would appeal to the readership of your journal as very helpful to improve the service in the community pharmacy settings and provide useful information to improve community pharmacy-based intervention in improving the management of sleep-related problems.

As suggested by the reviewers in the reports, herewith are corrections that have been done:

1. Will the study design adequately test the hypothesis?
   We have rearranged the “Research aims” and “Study outcomes” in the manuscript to highlight how the measurements will be conducted.

2. We are aware that sleep disorders are highly heterogeneous and the study would do better looking at a specific type (for e.g. insomnia), however as this is the first study of its kind in Australia therefore it is more a demonstration or feasibility type study rather than a randomized control trial (that is why the control group follows standard/usual care management for sleep disorders).
   We are hoping to look at if this can even be integrated into a community pharmacy workflow. We believe, potential future studies can be conducted to focus on one type of sleep disorders and using bigger sample size.
Another thing is, this study has to follow the time frame given, as it is a study conducted for a research higher degree, and with expecting difficulties to gain bigger sample size within the time frame given, the sample size calculation is small.

3. As for the data analysis, we have revised the section, and clearly stated how we will analyse the data for the parameters that will be measured.

4. Sample size calculation: Because this study is conducted as a pilot/feasibility study and therefore we think it is not appropriate to do positive predictive values (PPV). As the first of its kind in Australia, there is no published research relating to community pharmacy-based interventions utilising actigraphy in sleep health management, therefore we could not find a standard reference that can be used to determine sample size required for this study. Hence sample size calculation is based on differences in sleep parameters between actigraphy and sleep diaries from previous studies conducted in different settings, and we calculated it using Power and Sample Size Calculation software version 3.0 2009 (Vanderbilt University). A revised explanation is in the section ‘Sample size calculation’ in the manuscript.

Thank you for your kind attention and reviews. We look forward to hearing from you at your earliest convenience. We also confirm that this manuscript has not been published elsewhere and is not under consideration by another journal. All authors have approved the manuscript and agree with its submission to this journal.

With my best regards,
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