Author’s response to reviews

Title: An integrative review on methodological considerations in mental health research – design, sampling, data collection procedure and quality assurance

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The Editorial Office
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Dear Editor,

Response to Reviewers Query of an article entitled “An integrative review on methodological considerations in mental health research – design, sampling, data collection procedure and quality assurance”

I write on behalf of the authors to submit a response to the queries provided in the above manuscript. The reviewer's query has been addressed as follows:

Reviewer 1

Reviewers Query - The literature search employed a three-stage process

Authors response - In relation to the reviewer's query, the authors have presented the search terms that were used across the databases. For instance, the search terms used to search Medline and Embase were the combination of the following: (“mental health” OR mental health service OR “psychiatric services” OR mental disorders OR mental illness) AND (“methods” or “research designs” or “data collection” or “data analysis” or “sampling” or “sample size” or mixed methods) AND (“quality assurance” OR “reliability” OR “validity” OR “techniques” OR “strategies” OR research design OR “informed consent”)
Reviewers query - p5: Please give more concrete information about who exactly did each task: two reviewers who managed the data screening and extraction process; two authors screened the titles of articles; authors reviewed titles and abstracts...

Authors response - In relation to the reviewer's query, the authors have given concrete information about the task performed by each of the reviewers. The authors have stated that EB (Eric Badu) conducted the initial screening of titles and abstracts. A.P.O (Anthony Paul O’Brien) and R.M (Rebecca Mitchell) conducted the second screening of titles and abstracts of all the identified papers. Similarly, the authors extracted results of the included papers in numerical and textual format (1). E.B conducted the data extraction whilst A.P.O (Anthony Paul O’Brien) and R.M (Rebecca Mitchell) conducted the second review of the extracted data.

Reviewers query - Please give some more information about the reasons you had for excluding the 439 articles in the screening phase.

Authors response - The authors have responded to the reviewer's query by giving some more information about the reasons for the excluded papers. The authors have stated that the articles excluded were those that did not meet the inclusion criteria. In particular, papers excluded were those that did not address methodological issues as well as papers addressing methodological consideration in other disciplines.

Reviewers query - p8 line 3: aren’t there more than 4 studies in the category of mixed methods (see table 1)?

Authors response - The authors acknowledge the query by the reviewer. The authors wish to clarify that although there are more than 4 studies in the category of mixed methods according to the table, only four specifically discusses the categories of mixed methods design or types of mixed methods. The remaining studies address different section of methodological considerations in mixed methods, such as sampling. In particular, Palinkas, Horwitz (2) focused on methodological issues in mixed methods, particularly on the sampling. Accordingly, the authors have corrected the changes in the table.

Reviewers query --p9 line 13 and 29: ref 28 is not a mixed method study according to table1?

Authors response - The authors acknowledge the query by the reviewer. The authors wish to express that Palinkas, Horwitz (2) study focused on methodological issues in mixed methods, but only address sampling. Accordingly, the authors have corrected the changes in the table.

Reviewers query - - Subtitle: p 10 line20 considering qualitative components … why placed under ‘mixed methods study in the context of mental health research’?
Authors response - The authors acknowledge the query of the reviewer. The authors have realized that the sub-heading should be independent of the mixed methods section. Accordingly, the authors have revised the section for clarity.

Reviewers query - Please use in the result section the same headings as in your tables 1 and 2, to increase readability.

Authors response - The authors have matched the headings in the tables to the result section to increase readability.

Reviewers query - Important with regard to the discussion and conclusions: in what way are the findings of these analyses specific for mental health research, instead of being also applicable to research about other topics? Can you elaborate a bit more on this?

Authors response - The authors acknowledge the query of the review regarding the importance of the discussion and conclusions. The authors wish to express that the discussion of the analysis is specific for mental health research, particularly addressing the needs of consumers of mental health services. The authors have specifically discussed the relevance of the findings when conducting studies involving consumers of mental health services. The authors have specifically indicated the relevance of these results in a yellow ink at the discussion section.

Reviewers query - Was there a methodological quality assessment of the included papers? If not, what may have been the impact of the lack of such assessment on the findings?

Authors response - In relation to the reviewer's query, the authors wish to express that, the review did not assess the methodological quality of included papers using a critical appraisal tool. The authors did not conduct quality assessment because most of the included papers focused on methodological lessons from empirical studies. This makes it practically difficult to use a specific critical appraisal tool across all the papers. The lack of quality assessment may affect the findings, however, the integrative review methodology used for this study appears rigorous. The methodology involved five stages, including problem identification (ensuring that the research question and purpose are clearly defined); literature search (incorporating a comprehensive search strategy); data evaluation; data analysis (data reduction, display, comparison and conclusions) and; presentation (synthesising findings in a model or theory and describing the implications for practice, policy and research). Again, the combination of clearly articulated search methods, consultation with the Research Librarian, and reviewing articles with methodological experts in mental health research, helped to address any limitation.
Reviewers query - please provide the exact search terms for each database - can you please specify the search strategy

Authors response - In relation to the reviewer's query, the authors have presented the search terms and strategy that were used across all the databases. In particular, the authors search terms used to search Medline and Embase were the combination of the following: (“mental health” OR mental health service OR “psychiatric services” OR mental disorders OR mental illness) AND (“methods” or “research designs” or “data collection” or “data analysis” or “sampling” or “sample size” or mixed methods) AND (“quality assurance” OR “reliability” OR “validity” OR “techniques” OR “strategies” OR research design OR “informed consent”)

Reviewers query -- can you please define the term "mental health". What do you include as "mental health" research in this study?

Authors response - The authors acknowledge the query of the reviewer regarding the definition of mental health. The authors wish to express that mental health in this review align to the World Health Organization definition indicating “a state of well-being, in which the individual realises his or her own potentials, ability to cope with the normal stresses of life, functionality and work productivity as well as the ability to contribute efficiently in community life” (3). The mental health research in this context is not limited to a particular mental illness. The authors have specifically addressed this in the inclusion criteria section.

Reviewers query - might it be possible to give an overview of existing guidelines of research in observational studies and in clinical studies?

Authors response - In relation to the reviewer's query, the authors have presented an overview of the existing guidelines of research in observational studies and clinical studies. For instance, the authors have revised the introduction section to specifically explain the various study designs. Researchers have employed different study designs to conduct studies (4, 5). The study designs in the public health and clinical fields have largely focused on experimental (interventional) and observational studies (non-interventional) (6-8). Observational design is a non-interventional study where the investigator simply observes, records, classify, counts and analysed data (8-10). This design is different from the observational approaches used in social science research, which may involve observing participants or phenomena using a pre-defined checklist (8). The observational study has been categorized into five types, namely cross-sectional design, case-control studies, cohort studies, case report and case series (6-11). The cross-sectional design is used to measure the occurrence of a condition at a one-time point. This approach of conducting research is relatively quick and easy but do not permit a distinction between cause and effect (8). Conversely, the case-control is a design that examines the relationship between an attribute and a disease by comparing those with and without the disease (8, 10, 12). In addition, the case-control design is usually retrospective and aim to identify predictors of a particular outcome. This type of design is relevant in investigating rare diseases, or chronic diseases which may result from long-term exposure to particular risk factors (9). Further, cohort studies measure the relationship between exposure to a factor and the probability of the occurrence of a disease (8, 9). In addition,
case series describe a set of cases of a disease whilst case reports are reports of cases from health or disability services or research settings. More importantly, case series and case report are used as preliminary research to provide rapid attention to new findings (12).

Furthermore, interventional study design describes a research approach that use clinical care to evaluate treatment effects on outcomes (13). Several studies have explained the various forms of experimental study design used in public health and clinical research (14, 15). In particular, experimental studies have been categorized into randomized controlled trials, non-randomized controlled trials, and quasi-experimental design (14). The randomized trial is a comparative study where participants are randomly assigned to one of two groups. This research examines a comparison between a group receiving treatment and a group without treatment or receiving placebo, different treatment strategies or a different dosage. Herein, the exposure to the intervention is determined by random allocation (16, 17).

Reviewers query - maybe it could be helpful to limit the paper either on quantitative or on qualitative methods? Methods differ very much and guidelines for doing qualitative research are highly needed. In epidemiology several guidelines are available. - maybe the analyses could be strengthened by providing a timeline of how guidelines are changing over time? - statistical analysis methods should be discussed and analyzed when describing the guidelines related to quantitative studies.

Authors response - The authors acknowledge the query of the reviewer. However, the authors wish to express that the paper does not specifically provide guidelines for doing qualitative or quantitative research. The paper seeks to address the methodological considerations in conducting research in mental health. The paper critically discusses the methodological consideration in either qualitative, quantitative or mixed methods research in the context of mental health.

Reviewer 3

Reviewers query - the Discussion section consists of six pages mainly repeating the Results section. Please make this much more concise and reduce this to one and a half page, giving a critical view on what you found in your review.

Authors response - The authors acknowledge the query of the review regarding the length of the discussion. However, the authors wish to express that the discussion section provides information on the key findings. The information presented in this section appears different from the result section which only provides information on the number of papers describing each concept. The authors have also attempted to organize the discussion according to the PRISMA checklist which may probably account for the length of the discussion. Notwithstanding this, the authors have revised the section as per the reviewer's query.
Reviewers query - one sentence was not clear to me, page 16, lines 3-4: '...sending different interviewers can make participants more comfortable, so as to increase the response rate.' Do the authors mean that the respondent can choose between different interviewers to make a choice for the interviewer he feels most comfortable with? If so, how could this be done in practice? If you mean something else, please explain.

Authors response - The authors acknowledge the query of the reviewer regarding the section. The authors mean that when a consumer of mental health services refuse to participate in a study (due to low self-esteem) when approached for the first time, a different interviewer can reapproach the same participant to see if they are more comfortable to participate. This approach can help to increase the response rate.

Reviewers query - please also pay attention to the References. I think the Arch Public Health wants the names of the referenced Journals abbreviated. Now, some Journals names are abbreviated and others are not.

Authors response - The authors have revised the references as per the reviewers query.