

PEER REVIEW HISTORY

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ARTICLE DETAILS

TITLE (PROVISIONAL)	World Health Organisation Guidance on Mental Health Training: a systematic review of the progress for non-specialist health workers
AUTHORS	Caulfield, Alexandra; Vatanserver, Deniz; Lambert, Gabriel; Van Bortel, Tine

VERSION 1 – REVIEW

REVIEWER	Shannon Doherty Anglia Ruskin University, United Kingdom
REVIEW RETURNED	23-May-2018

GENERAL COMMENTS	<p>This is a well written paper that addresses an important global topic and I would recommend it be accepted with the following minor revisions.</p> <ol style="list-style-type: none">1. The WHO Mental Health Gap Action plan is mentioned in the introduction, however, in Table 3, there is no mention of any of the included studies using it in part, or in whole as an intervention. Siriwardhana (2016) is listed as using a "General" intervention, when in fact, they used mhGAP 1.0 to train primary care practitioners. It would strengthen this article if it was noted which studies used mhGAP as this is the major component of the WHO guidance on mental health training.2. As the original literature search was run almost a year ago, on 31 May 2017, I would suggest it be run again before the final manuscript is accepted to include any research recently published.3. The information on lines 38-40 on page 5 is repeated in the next section "Data Extraction", I would suggest revising this so the information is only included in one place.4. Line 46, page 12, "outcome" should be "outcomes" or "outcome measures"5. Line 28, page 13, "founding" should be "finding"6. References 10 and 11 on page 20 are single spaced instead of double spaced
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REVIEWER	Alison Booth Department of Health Sciences University of York, UK
REVIEW RETURNED	30-May-2018

GENERAL COMMENTS	<p>Overall a well presented and interesting report of what appears to be a well conducted review. I have the following observations, requests and suggestions.</p> <p>Abstract</p> <ol style="list-style-type: none">1. Eligibility criteria – replace description of searches with PICO criteria2. Outcomes – the authors report the framework used in this section but it would be better to report the outcomes themselves.
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	<p>3. Results – I think it is important here for the authors to make it clear that they are talking about reported evaluations of relevant training courses. There could be more training, just not evaluated and/or published, as acknowledged later in the paper.</p> <p>4. I appreciate word count is always a problem in abstracts but saying who the improvements in outcomes after training were for is important.</p> <p>Strength and limitations of this study</p> <p>5. First bullet point: The review is evaluating on a global scale the literature on the effectiveness of short training courses.</p> <p>6. Second bullet point: replace 'study' with 'review'</p> <p>Introduction</p> <p>7. Page 4 Line 13: reference for the 2011 follow up series to the 2007 Lancet series?</p> <p>8. Page 4 Line 24: reference for the WHO Mental Health Gap Action Programme?</p> <p>9. Page 4 Line 28: suggest replacing 'identify' (line 28) with 'examine'</p> <p>10. Page 4 Line 29 : make it clearer here that it was published reports of evaluations of training that were being identified, rather than all the training courses (line 29)</p> <p>Data collection, extraction, methodological assessment, classification of training courses and outcomes</p> <p>11. Rigorous and appropriate methods clearly reported. I do note however that in the, very minimalist registration details in PROSPERO, the participants are listed as Mental health patients and in the review they are trainees.</p> <p>Findings</p> <p>12. Figure 1 is nicely presented but needs a title.</p> <p>13. Page 8 Lines 24-43: I struggled to understand what the 'training sample' and 'evaluation sample' were – are these the people being trained who were included in the evaluation? Perhaps make this clearer and if the same, use terms consistently.</p> <p>14. Page 13 Line 28: 'founding' should be 'finding'</p> <p>Discussion</p> <p>15. I note that in Outcomes you say you excluded studies that did not provide any evaluation data. This is understandable but perhaps a count of such papers may have contributed to an indication of 'global' uptake. Evaluations done well are costly and time consuming so it may be that funds have been focussed on training at the cost of evaluation. Perhaps a point worth making here.</p> <p>16. Disappointing number of studies that included outcomes for people with mental health problems: perhaps consider suggestions for why this might be and why it is important for future evaluations to consider.</p> <p>17. Did any of the included papers mention that the training was set up in response to the WHO?</p> <p>18. Was there any information about the frequency with which the courses were run, numbers being trained over time, past, future plans for training in any of the evaluation reports?</p> <p>Limitations</p> <p>19. Page 18 Lines 52-53: You include MacCarthy et al and Siriwardhana et al where the trainees were Generalist Medical Practitioners, but exclude training for medical students; why is this? You list exclusion of medical students as a limitation of the review but an explanation for the exclusions should be added</p> <p>Funding</p> <p>20. The authors state they received no funding for the project: please clarify the entry in the protocol registration form for Funding</p>
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VERSION 1 – AUTHOR RESPONSE

Reviewers' Comments to Author:

Reviewer: 1

Reviewer Name: Shannon Doherty

Institution and Country: Anglia Ruskin University United Kingdom

Competing Interests: None declared

This is a well written paper that addresses an important global topic and I would recommend it be accepted with the following minor revisions.

1. The WHO Mental Health Gap Action plan is mentioned in the introduction, however, in Table 3, there is no mention of any of the included studies using it in part, or in whole as an intervention. Siriwardhana (2016) is listed as using a "General" intervention, when in fact, they used mhGAP 1.0 to train primary care practitioners. It would strengthen this article if it was noted which studies used mhGAP as this is the major component of the WHO guidance on mental health training.

We thank the reviewer for highlighting this important point. A new paragraph entitled "WHO Policy Uptake" has now been added to the Results section. In addition, we have also updated the results table (Table 3) to include this information.

'A total of six studies referenced The WHO Mental Health Gap Action plan (World Health Organization, 2008) as their guiding principle (Adebowale, Alonso, Hofmann-Braussard, Siriwardhana, Usher, Wright), and five of these specifically used the mhGAP Intervention Guide to design training modules (Adebowale, Alonso, Siriwardhana, Usher, Wright). A further 9 studies (Armstrong 2011, Chibanda, Ekers, Jenkins 2013, Kauye, Lam, Li, Paudel, Sadik) used other works of the World Health Organization in their studies; in particular, the World Health Organization Disability Assessment Schedule version 2.0 (WHODAS 2.0) (Üstün, 2010) to assess the outcomes of training (Chibanda, Jenkins 2013), and the WHO Primary Care Guidelines for Mental Health (Jenkins et al., 2004) (Jenkins 2013, Kauye, Sadik). One study (Jordans 2012) was funded by WHO Department of Mental Health and Substance Abuse.'

2. As the original literature search was run almost a year ago, on 31 May 2017, I would suggest it be run again before the final manuscript is accepted to include any research recently published.

We thank the reviewer for this important suggestion. Unfortunately, due to the lack of resources and the unavailability of the researchers involved in this project, we are unable to re-run our search. However, we have now added this as a limitation to the manuscript.

'Unfortunately, due to lack of resources and the unavailability of the researchers involved in this project, we were unable to re-run our search after 31st May 2017; more studies may well have been published since the end date of our search, which are not included in this review.'

3. The information on lines 38-40 on page 5 is repeated in the next section "Data Extraction", I would suggest revising this so the information is only included in one place.

We sincerely apologise for the lack of clarification associated with this section, which has now been amended to better reflect our approach and to remove duplicate information. To clarify, the papers were independently screened to assess if they met inclusion criteria by two reviewers using the titles and abstracts. Any papers which both reviewers did not agree upon (to either include or exclude) were then discussed and included/excluded by collaborative discussion. A third reviewer was involved in the discussion process to ensure appropriate studies were included. For data extraction, one reviewer extracted data initially. This was double-checked independently by a second reviewer. A third reviewer then provided additional independent quality control by random sampling of data to ensure accurate extraction.

4. Line 46, page 12, "outcome" should be "outcomes" or "outcome measures".

We have made the required changes as per the reviewer's suggestion.

5. Line 28, page 13, "founding" should be "finding".

We have made the required changes as per the reviewer's suggestion.

6. References 10 and 11 on page 20 are single spaced instead of double spaced.

We have made the required changes as per the reviewer's suggestion.

Reviewer: 2

Reviewer Name: Alison Booth

Institution and Country: Department of Health Sciences, University of York, UK

Competing Interests: None declared

Overall a well presented and interesting report of what appears to be a well conducted review. I have the following observations, requests and suggestions.

Abstract

1. Eligibility criteria – replace description of searches with PICO criteria

We thank the reviewer for this suggestion. This section has now been amended as follows: *‘Searches were conducted for articles published in English from January 2008 to May 2017, using PICO search terms related to mental health, training, community care, and evaluation/outcome...’*

2. Outcomes – the authors report the framework used in this section but it would be better to report the outcomes themselves.

We have now updated this section to incorporate the outcomes.

‘Data were collected across the following categories; trainees (number and background), training course (curriculum, teaching method, length), evaluation method (timing of evaluation, collection method, and measures assessed) and evaluation outcome (any improvement recorded from baseline). In addition, studies were assessed for their methodological quality using the framework established by Liu et al. (2016).’

3. Results – I think it is important here for the authors to make it clear that they are talking about reported evaluations of relevant training courses. There could be more training, just not evaluated and/or published, as acknowledged later in the paper.

We apologize for the lack of clarity associated with this section. We have now amended the manuscript to read:

‘29 evaluations of relevant training courses met the inclusion criteria. These were implemented in 16 of 195 countries since 2008 (over half between 2014-2017), and ten in three high-income countries.’

4. I appreciate word count is always a problem in abstracts but saying who the improvements in outcomes after training were for is important.

We have updated the abstract as follows:

'Evaluation methods varied enormously, but all 29 studies found an improvement after training in at least one area, specifically trainees' attitude, knowledge, clinical practice, skills, confidence, satisfaction or patient outcome.'

Strength and limitations of this study

5. First bullet point: The review is evaluating on a global scale the literature on the effectiveness of short training courses.

We have updated this bullet point as per the reviewer's suggestion.

6. Second bullet point: replace 'study' with 'review'.

We thank the reviewer for highlighting this error. This bullet point has now been changed in line with the editorial request and no longer includes the word 'study'.

Introduction

7. Page 4 Line 13: reference for the 2011 follow up series to the 2007 Lancet series?

This reference has now been added to the manuscript (Patel *et al.*, 2011).

8. Page 4 Line 24: reference for the WHO Mental Health Gap Action Programme?

This reference has now been added to the manuscript (World Health Organisation, 2008).

9. Page 4 Line 28: suggest replacing 'identify' (line 28) with 'examine'.

We have now updated the manuscript as per the reviewer's suggestion.

10. Page 4 Line 29: make it clearer here that it was published reports of evaluations of training that were being identified, rather than all the training courses (line 29).

This section has now been amended to read as follows: *'by identifying all published reports on evaluations of training that took place...'*

Data collection, extraction, methodological assessment, classification of training courses and outcomes:

11. Rigorous and appropriate methods clearly reported. I do note however that in the, very minimalist registration details in PROSPERO, the participants are listed as Mental health patients and in the review they are trainees.

The entry in PROSPERO has now been updated to correct this point, and add a detailed update on the progress of the review.

Findings

12. Figure 1 is nicely presented but needs a title.

We thank the reviewer for highlighting this point. Title now reads: 'PRISMA Search Strategy'.

13. Page 8 Lines 24-43: I struggled to understand what the 'training sample' and 'evaluation sample' were – are these the people being trained who were included in the evaluation? Perhaps make this clearer and if the same, use terms consistently.

We thank the reviewer for this suggestion and apologize for the lack of clarity. This section has now been updated as follows:

'Two areas proved challenging to assess; first, an agreed threshold for 'sufficient' detail for selection of the training sample, and second an agreed threshold for 'representative' selection of the evaluation sample. To clarify, the 'training sample' were the participants selected as trainees for each course, and the 'evaluation sample' the subgroup of trainees selected to participate in feedback/evaluation. In many cases, the evaluation samples were convenience samples, based on who was available and willing to provide feedback rather than a representative group.'

14. Page 13 Line 28: 'founding' should be 'finding'

We have now updated the manuscript as per the reviewer's suggestion.

Discussion

15. I note that in Outcomes you say you excluded studies that did not provide any evaluation data. This is understandable but perhaps a count of such papers may have contributed to an indication of 'global' uptake. Evaluations done well are costly and time consuming so it may be

that funds have been focused on training at the cost of evaluation. Perhaps a point worth making here.

We thank the reviewer for highlighting this important point. We have now mentioned this issue in the 'strengths and limitations' section at the beginning of the paper, as well as the 'discussion' section (paragraph 2) at the end:

'It is also important to note that this review only included studies which provided an evaluation of training; other 'unevaluated' courses may have contributed to a broader 'global' uptake. Evaluations done well are costly and time-consuming so it may be that funds have been focused on training at the cost of evaluation.'

16. Disappointing number of studies that included outcomes for people with mental health problems: perhaps consider suggestions for why this might be and why it is important for future evaluations to consider.

We are grateful to the reviewer for acknowledging the importance of this point. We have updated the relevant section in the manuscript in order to further highlight and discuss this issue as follows:

'However, it is not clear if an improvement in many of the outcomes measured (trainee knowledge, attitude, confidence etc.) actually correlates with an improved outcome for patients, and a disappointing number of studies focused on outcomes for people with mental health problems. This may be due to logistical and ethical difficulties, or possibly ongoing stigma, and represents a key area for future research.'

17. Did any of the included papers mention that the training was set up in response to the WHO?

We thank the reviewer for highlighting this point. To clarify, we have categorized response to the WHO into studies which used mhGAP to create training modules, and studies which referenced other WHO research, such as using the WHO primary care guidelines to create modules, or the WHODAS (World Health Organization Disability Assessment Schedule) to quantify clinical outcome for patients. Please refer to the new paragraph entitled 'WHO Policy Uptake and Direction of Future Research' in the Results section for information on this. We have also updated the discussion to include this.

18. Was there any information about the frequency with which the courses were run, numbers being trained over time, past, future plans for training in any of the evaluation reports?

We thank the reviewer for this suggestion. We have now re-reviewed the papers to extract data on this, and incorporated it into the paper in two new sections:

- 'Frequency of Training' paragraph in the Results section: *'Twelve studies (Adebowale, Chew-Graham, Church, Ferraz, Hossain, Jordans, Kauye, Lam, Li, Morawska, Sadik, Wright) incorporated data from the same course run on multiple occasions across different localities (to improve access for trainees). The total numbers trained across these courses are listed in Table 3. Further 8 studies (Abas, Chibanda, Cook, Jenkins, Lam, MacCarthy, Ravitz and Ruud) reviewed courses which had already been evaluated elsewhere and then adapted to incorporate changes. It was difficult to determine total numbers trained over time for each project. Of note, the study by Chibanda et al. (2016) provided a follow-up randomised clinical trial for the Friendship Bench Project in Zimbabwe, as recommended by Abas et al. (2016) in their earlier evaluation of the same project.'*
- 'WHO Policy Uptake and Direction of Future Research' paragraph in the Results section: *'Four studies (MacCarthy, Paudel, Ruud, Sadik) detailed plans for ongoing training and two studies (Abas, Siriwardhana) plan to roll-out a more comprehensive version of the training course based on this pilot study. Most studies suggested themes for future research, including the need for larger and more diverse training samples, more objective outcomes, and more robust evidence in the form of randomised trials.'*

Limitations

19. Page 18 Lines 52-53: You include MacCarthy et al and Siriwardhana et al where the trainees were Generalist Medical Practitioners, but exclude training for medical students; why is this? You list exclusion of medical students as a limitation of the review but an explanation for the exclusions should be added.

We thank the reviewer for highlighting this point. In line with the objective of this review and the WHO guidelines, we were interested in the efficacy of programs that could be readily administered without extensive training. Given that medical students could have been receiving both specialist education and the training program, we wanted to ensure that this confound was removed from our search strategy. This clarification is now included in the manuscript.

Funding

20. The authors state they received no funding for the project: please clarify the entry in the protocol registration form for Funding sources/sponsors as Polygeia Global Health Thinktank www.polygeia.com

We apologize for this error. We did not receive any funding from the Polygeia group, and have updated this section accordingly.

References

- Jenkins, R., Royal Society of Medicine (Great Britain), WHO Collaborating Centre for Research and Training in Mental Health., 2004. WHO guide to mental and neurological health in primary care: a guide to mental and neurological ill health in adults, adolescents, and children, UK ed. Royal Society of Medicine, London.
- Patel V, Boyce N, Collins PY, Saxena S, Horton R. A renewed agenda for global mental health. Lancet 2011; 378(9801): 1441-2.
- Üstün, T.B., 2010. Measuring health and disability: manual for WHO Disability Assessment Schedule WHODAS 2.0. World Health Organization, Geneva.
- World Health Organization, 2008. mhGAP Mental Health Gap Action Programme: scaling up care for mental, neurological and substance use disorders. Geneva.

VERSION 2 – REVIEW

REVIEWER	Shannon Doherty Anglia Ruskin University, UK
REVIEW RETURNED	17-Aug-2018

GENERAL COMMENTS	<p>This revised version of the article is much improved, and it is clear that the authors addressed concerns brought up by the reviewers. This is a well-written paper that makes an important contribution to the field but still requires some further minor revisions that should be addressed before this article is ready for publication.</p> <ol style="list-style-type: none"> Line 31, page 4 "confound" is an odd word choice, recommend this sentence be revised to include a word such as "issue" or "confounding factor". Lines 22-23, page 5, the sentence "Studies identified and included these groups as first-line contacts for communities in distress or difficult to reach" is awkward to read, recommend revising the end of the sentence to "or those which are difficult to reach" or something similar. The Findings section is inconsistent in how study findings are reported. For example, line 38, page 6, "recruited in 22 (76%) studies" without noting references, however in lines 39-40, page 6, "Only six (21%) of trials (5,9,14,16,18,26)" does have references noted. It is recommended that one style of reporting results is chosen and used consistently through this work. On that note, the references in some places are superscript and in others are in regular text and enclosed in brackets. Please ensure all references are consistent and appropriate for the journal. Line 44-45, page 9, this inconsistency in reporting occurs again with a sentence which states a finding without noting a percentage, but does include references enclosed in brackets. Again, it is recommended that a style of reporting results is chosen and used consistently throughout. Line 39, page 15, "necessary evil" is a strange phrase to use here and it is recommended this be revised to something more appropriate.
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	<p>7. Line 15, page 16, the authors note "due to lack of resources and the unavailability of the researchers" they were unable to run a more recent literature search. The limitation is acceptable, however the wording of this sentence is awkward and should be revised to something such as, "due to lack of resources and researcher unavailability" or something similar to be more clear.</p> <p>8. Table 3 contains quite a lot of information, but what is missing are the key findings from each study. The outcome measures are noted in the Table, but not the actual outcomes (either qualitative or quantitative). It is recommended Table 3 be split into 2 tables (a. it is a large table and a little difficult to read, and b. to report key statistical or qualitative findings from each study).</p>
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REVIEWER	Alison Booth University of York, UK
REVIEW RETURNED	14-Aug-2018

GENERAL COMMENTS	I would like to thank the authors for satisfactorily addressing all the issues I raised. I am trusting that the reported amendments to the protocol record in PROSPERO will be made shortly and as described.
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VERSION 2 – AUTHOR RESPONSE

Reviewer: 1

Reviewer Name: Shannon Doherty

Institution and Country: Anglia Ruskin University, UK

Please state any competing interests or state 'None declared': None declared

This revised version of the article is much improved, and it is clear that the authors addressed concerns brought up by the reviewers. This is a well-written paper that makes an important contribution to the field but still requires some further minor revisions that should be addressed before this article is ready for publication.

We thank the reviewer for these comments which have further improved our manuscript.

1. Line 31, page 4 "confound" is an odd word choice, recommend this sentence be revised to include a word such as "issue" or "confounding factor".

This now reads: '*Studies focusing on specialists (e.g. psychiatrists) and medical students were excluded as these groups may have received specialist training in addition to a short training course. In line with WHO guidance, we were interested in the efficacy of programs that could be readily administered without extensive training. We therefore wanted to ensure that this potential confounding factor was removed from our search strategy.*'

2. Lines 22-23, page 5, the sentence "Studies identified and included these groups as first-line contacts for communities in distress or difficult to reach" is awkward to read, recommend revising the end of the sentence to "or those which are difficult to reach" or something similar.

This has been updated to '*communities in distress or which are difficult to reach*'.

3. The Findings section is inconsistent in how study findings are reported. For example, line 38, page 6, "recruited in 22 (76%) studies" without noting references, however in lines 39-40, page 6, "Only six (21%) of trials (5,9,14,16,18,26)" does have references noted. It is recommended that one style is reporting results is chosen and used consistently through this work.

We thank the reviewer for highlighting this important point. With the interest of improving clarity and using a consistent system to report our findings, we now only report the percentage of studies. The detailed information about each study is already provided in Tables 3 and 4.

4. On that note, the references in some places are superscript and in others are in regular text and enclosed in brackets. Please ensure all references are consistent and appropriate for the journal.

We have now corrected this mistake.

5. Line 44-45, page 9, this inconsistency in reporting occurs again with a sentence which states a finding without noting a percentage, but does include references enclosed in brackets. Again, it is recommended that a style of reporting results is chosen and used consistently throughout.

We have now corrected this.

6. Line 39, page 15, "necessary evil" is a strange phrase to use here and it is recommended this be revised to something more appropriate.

'*Necessary evil*' has been replaced by '*consequence*'.

7. Line 15, page 16, the authors note "due to lack of resources and the unavailability of the researchers" they were unable to run a more recent literature search. The limitation is acceptable, however the wording of this sentence is awkward and should be revised to something such as, "due to lack of resources and researcher unavailability" or something similar to be more clear.

Amended as suggested.

8. Table 3 contains quite a lot of information, but what is missing are the key findings from each study. The outcome measures are noted in the Table, but not the actual outcomes (either qualitative or quantitative). It is recommended Table 3 be split into 2 tables (a. it is a large table and a little difficult to read, and b. to report key statistical or qualitative findings from each study).

We thank the reviewer for this suggestion. We have now created an additional Table 4 in which we have included information about the evaluation outcomes that were previously reported on Table 3. In addition, as per the reviewer's suggestion, we have now included another column in Table 4 highlighting the key findings from each study (a summarized version of the key results reported by the authors).

Reviewer: 2

Reviewer Name: Alison Booth

Institution and Country: University of York, UK

Please state any competing interests or state 'None declared': None declared

I would like to thank the authors for satisfactorily addressing all the issues I raised. I am trusting that the reported amendments to the protocol record in PROSPERO will be made shortly and as described.

This has been updated.