

PEER REVIEW HISTORY

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ARTICLE DETAILS

TITLE (PROVISIONAL)	Interventions and Practice Models for Improving Health and Psychosocial Outcomes of Children and Young People in Out-of-Home Care: Protocol for a Systematic Review
AUTHORS	Galvin, Emma; O'donnell, Renée; Skouteris, Helen; Halfpenny, Nick; Mousa, Aya

VERSION 1 - REVIEW

REVIEWER	Dr Miriam Maclean Telethon Kids Institute, The University of Western Australia, Australia
REVIEW RETURNED	30-May-2019

GENERAL COMMENTS	<p>The paper outlines the protocol for a systematic review examining interventions and practice models to improve health and psychosocial outcomes for children in out of home care. This study has an important aim in providing an evidence base Identifying effective interventions to improve the dismal outcomes that are too common among young people who have been in care.</p> <p>The protocol is generally suitable for its stated aims and clearly written. I include several queries/suggestions that may help to further clarify and strengthen aspects of the protocol.</p> <p>Method – the Cochrane handbook suggests that excluding grey literature, particularly conference abstracts may leave out important information and affect the results of a systematic review. I'd therefore suggest including grey literature or providing a strong rationale for the decision not to include it.</p> <p>Participants – the inclusion criteria refers to “living in out of home care” however it should be noted that many young people move in and out of care, and therefore useful would be useful to clarify whether studies would be included or excluded if participants returned home or moved in and out of care either during the intervention or during follow-up.</p> <p>Analysis – it is likely that included studies will vary in the level of bias risk. Please outline how the analysis will address these variations, e.g. is there a minimum accepted level of bias risk for a study to be included in the meta-analysis, or will all studies be included even where some evidence is high quality and some low quality?</p>
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REVIEWER	Robert B. McCall Professor Emeritus of Psychology University of Pittsburgh I am one of the authors of several interventions in institutions for children birth to 4 years of age and their follow-up after placement in families.
REVIEW RETURNED	31-May-2019

GENERAL COMMENTS	<p>This is a very worthwhile effort. I am concerned that the literature to be reviewed is often not up to the precision the authors describe here. These studies of interventions in existing facilities are very difficult to conduct in a scientifically rigorous manner. One often must accept the "best obtainable" if not the best circumstances. It will be especially difficult to address questions 2 and 3 (page 7) in a direct empirical comparison. They are important aims but it will have to be done between studies, and the parameters will be different between studies. Similarly, only a small percentage of studies might have the data required to do meta-analyses. Looking at subgroups is worthwhile, but often this information is not available in a form that will permit such analyses. The authors recognize that there are few intervention studies in the literature and they have limited evaluations, so they know what they are up against.</p> <p>On page 6 and elsewhere the authors state that there are no other reviews of interventions for this population. There is at least one review of interventions in residential care facilities of which I am aware: Hermanau et al. (2016), Trauma, Violence, & Abuse. doi: 10.1177/1524838016641918. That review highlights one study as being the most comprehensive, which was published in 2008 and should be included in the current review.</p> <p>Best of luck with this endeavor.</p>
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VERSION 1 – AUTHOR RESPONSE

Reviewer: 1

Dr Miriam Maclean

Method – the Cochrane handbook suggests that excluding grey literature, particularly conference abstracts may leave out important information and affect the results of a systematic review. I'd therefore suggest including grey literature or providing a strong rationale for the decision not to include it.

We thank the reviewer for their time and effort in reviewing our manuscript. The authors understand that excluding grey literature may impact the results of the systematic review, by excluding conference abstracts, thesis, books etc, and acknowledge this limitation within the strengths and limitations section of the paper "Limitations include the potential for publication bias since the systematic review will include only published data..." (on page 3, lines 5-8). However, given our aim is to compare the strength of evidence for interventions or practice models, to determine which ones are most effective in improving health and/or psychosocial outcomes for children and young people in

OoHC, the current systematic review is focused only on peer reviewed papers so that we can synthesise evidence from the same type of scientific literature (in this case literature that has undergone a critique by experts in the field). Navigating, and synthesising, grey literature would be the topic of a separate systematic review.

Participants – the inclusion criteria refer to “living in out of home care” however it should be noted that many young people move in and out of care, and therefore useful would be useful to clarify whether studies would be included or excluded if participants returned home or moved in and out of care either during the intervention or during follow-up.

Articles that have a main focus on reunification are not included, however papers that incorporate participants who transitioned into a different type of care setting were included in the reviewed studies, though this change will be noted in the results. The inclusion and exclusion criteria have been edited to depict the above and a sentence added to 3.1 Selection Criteria on page 7, lines 16-18.

“Interventions and practice models developed for reunification have been excluded, however interventions and practice models that incorporate participants who transitioned into a different type of care setting are included.”

Analysis – it is likely that included studies will vary in the level of bias risk. Please outline how the analysis will address these variations, e.g. is there a minimum accepted level of bias risk for a study to be included in the meta-analysis, or will all studies be included even where some evidence is high quality and some low quality?

The authors would like to thank the reviewer for highlighting an important point. The meta-analysis will be performed on studies in which a baseline and follow up effect is available (i.e., RCT and quasi-experimental) and wherein the same outcome of interest has been reported (i.e., anxiety, depression, self-harming behaviour, delinquent behaviour, obesity) along with a change in effect. As the outcomes of interest will likely be assessed using a diverse range of instruments, a random effects model will be estimated accounting for the heterogeneity between the studies.

We agree that the conclusions of meta-analyses depend on the quality of the studies identified in the overall effect, however, we are mindful of restricting the inclusion of studies in the MA to those deemed high quality, as this conservative approach could reduce the accuracy of the overall effect. Rather to control for the heterogeneity likely identified in the quality of the studies, a sensitivity analysis will be performed to determine the robustness of the observed effect size. Specifically, we will repeat the primary analysis by altering the dataset to only include medium and high quality studies and observe any changes in the overall effect. If the findings are robust, then the studies of all quality will be retained, if there are changes in the findings then further examination of this will be performed. Sections 3.6 Data Analysis and Synthesis (page 11) and 3.8 Sensitivity Analysis (page 12) have been amended to include the following statements:

“The meta-analysis will be performed on studies in which a baseline and follow up effect is available (i.e., RCT and quasi-experimental) and wherein the same outcome of interest has been reported (i.e., anxiety, depression, self-harming behaviour, delinquent behaviour, obesity) along with a change in effect. As the outcomes of interest will likely be assessed using a diverse range of instruments, a random effects model will be estimated accounting for the heterogeneity between the studies.” (page 11, lines 13-19)

“Sensitivity analysis will be performed to explore the influence of heterogeneity ($I^2 > 50\%$) and determine the robustness of the observed effect size. Specifically, the primary analysis will be repeated by altering the dataset to only include medium and high quality studies to examine their influence on the results. If the findings are robust, then the studies of all quality will be retained, if there are changes in the findings then further examination of this will be performed.” (page 12, lines 12-16)

Reviewer: 2

Robert B. McCall

This is a very worthwhile effort. I am concerned that the literature to be reviewed is often not up to the precision the authors describe here. These studies of interventions in existing facilities are very difficult to conduct in a scientifically rigorous manner. One often must accept the "best obtainable" if not the best circumstances. It will be especially difficult to address questions 2 and 3 (page 7) in a direct empirical comparison. They are important aims but it will have to be done between studies, and the parameters will be different between studies. Similarly, only a small percentage of studies might have the data required to do meta-analyses. Looking at subgroups is worthwhile, but often this information is not available in a form that will permit such analyses. The authors recognize that there are few intervention studies in the literature and they have limited evaluations, so they know what they are up against.

On page 6 and elsewhere the authors state that there are no other reviews of interventions for this population. There is at least one review of interventions in residential care facilities of which I am aware: Hermanau et al. (2016), *Trauma, Violence, & Abuse*. doi: 10.1177/1524838016641918. That review highlights one study as being the most comprehensive, which was published in 2008 and should be included in the current review.

We thank the reviewer for their insightful feedback on our manuscript. The authors appreciate that empirical evidence may not be available or possible to answer the research questions presented and that although the level of precision in this protocol is ambitious, the authors acknowledge that the literature may vary in rigour and will endeavour to evaluate the evidence in light of what is possible within the given context.

This review you refer to here focuses on orphanages specifically. Orphanages are typically institutions that house large numbers of children and infants, and now only run predominantly in developing countries. The paper refers to institutionalised care as a form of care for children and infants without parents (page 545). The included studies in this paper all refer to orphanages or hospital/maternity hospital (temporary residence departments for children and infants born out of wedlock or with sick mothers) settings. Residential care units are different in that residential out-of-home care is referred to as a last resort, where a small number of children (4-5), aged 12 – 17 years, are cared for in a staffed house. Although residential care is used to describe various residentially based living arrangements, including small group homes, orphanages, inpatient psychiatric care and residential treatment centres (James, Sigrid, Alemi, Qais & Zepeda, Veronica, 2013. Effectiveness and implementation of evidence-based practices in residential care settings. *Children and Youth Services Review*, 35(4), pp.642–656), our study excludes papers only looking at orphanages, inpatient psychiatric care and

residential treatment centres/rehabilitation services and this has now been reflected in the exclusion criteria under 3.1 election Criteria. Table 1. PICO for Study Inclusion (page 8).

VERSION 2 – REVIEW

REVIEWER	Dr Miriam Maclean Telethon Kids Institute, the University of Western Australia, Australia
REVIEW RETURNED	11-Jul-2019

GENERAL COMMENTS	The authors have satisfactorily addressed my comments
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