PEER REVIEW HISTORY

ARTICLE DETAILS

TITLE (PROVISIONAL)	Interventions to increase access to or uptake of physical health screening in people with severe mental illness: a realist review
AUTHORS	Lamontagne-Godwin, Frederique; Burgess, Caroline; Clement, Sarah; Gasston-Hales, Melanie; Greene, Carolynn; Manyande, Anne; Taylor, Deborah; Walters, Paul; Barley, Elizabeth

VERSION 1 – REVIEW

REVIEWER	Dr Daniel Bressington The Hong Kong Polytechnic University, Hong Kong.
REVIEW RETURNED	21-Sep-2017

GENERAL COMMENTS	Thank you for asking me to review this realist review. The topic is important/clinically relevant and the paper is well-written. I have a few specific queries and comments about the work. The main area that requires some clarification is the study inclusion/exclusion criteria (i.e. what is actually the main outcome of interest, uptake of screening, or patient related health outcomes?). One of the main aims of a realist review is the development or refinement of theory. Although a lack of theory in the included studies is mentioned, there is not much discussion about theory or the potential relationships between the context, mechanisms or outcomes of included studies. Further development of such discussion would likely add to the quality of the manuscript. Abstract: It is mentioned that “cross-sectional study designs” were classed as intervention studies. How is this the case? The results state that all studies reported “improved uptake of screening”. This requires clarification because at least two of the studies included in the review (references 28 and 36) report the use of a specific screening tool with patients, but do not report any changes/improvements in screening uptake. Methods: Inclusion/exclusion criteria: SMI is defined as “psychosis or bipolar disorder”, but some the participants in some of included studies had other forms of SMI. It would be useful to specify how studies which included people with a wider variety of forms of SMI were judged for eligibility (i.e. was there a minimum percentage of psychosis participants). Intervention studies were excluded if “uptake or access to screening was not a main outcome”. As mentioned earlier some of the included studies do not seem to have this as a main outcome. Patient related outcomes as a result of screening are not clearly mentioned in the inclusion/exclusion criteria, but these are included in the results section/tables.

	It is therefore unclear if these outcomes were decided to be included at the outset of the review, or if they were added later. Quality assessment: More clarification should be provided about using STROBE, as this usually relates to the quality of reporting of studies, rather than assessment of study quality/bias.

REVIEWER	Dr Jacquie White University of Hull, UK None declared although I am the author of one of the studies reviewed
REVIEW RETURNED	05-Oct-2017

GENERAL COMMENTS	An interesting and timely paper that attempts to identify and evaluate interventions to increase uptake or access to physical health screening in SMI, drawing on a realist review methodology. The issues I have identified below are intended to prompt the authors to reflect on the way they have organised and presented their findings. Otherwise I think the paper was well presented in the style required by the journal. I believe the results of this review are important and should be published, but currently some of the omissions made when the authors of the original studies reported complex interventions are maintained in this paper. It is important to understand what the barriers and facilitators are to improving physical health care are for this population. Screening is central to health policy although we do not know if screening alone can lead to positive health outcomes, and have very little evidence about the most effective types of intervention beyond screening. Complex interventions that address multiple domains, including health behaviour and system barriers are urgently needed. Although the authors state they have drawn on published realist review methodology and reporting guidance and some of this is evident I think it would be preferable to make the 'programme theory' more explicit. Screening is defined, and contrasted with monitoring but it would have been useful to know more about the different elements of screening e.g. targeted or multiple screening parameters, when and where in the care pathway screening was attempted/offered and how offered, what type of health professional undertook the screening and in which type of service (e.g. primary or secondary care). Some of this information is available in Tables 1 and 2 but I was surprised that there was not more attention to this, considering the research question. This would have enabled some weighting to be given to the relative importance of the facilitators and barriers identified in all the studies reviewed and allow the reader to understand if the recommendations of the reviewers are based on appraisal evidence or opinion. For example, the statement in the abstract that screening "champions" may contribute to intervention success is confusing. It is not clear if this is just because some studies included this approach to screening in their methodology and reported it, or if there is evidence from this review that screening champions increase screening engagement rates.

VERSION 1 – AUTHOR RESPONSE

Comment #1: Clarification is needed on the study inclusion/exclusion criteria - what is actually the main outcome of interest, uptake of screening, or patient related health outcomes? Patient related outcomes as a result of screening are not clearly mentioned in the inclusion/exclusion criteria, but these are included in the results section/tables. It is therefore unclear if these outcomes were decided to be included at the outset of the review, or if they were added later.

Response: The main outcome of interest is uptake of screening. The sentence on page 4 (lines 13-15) has been revised to clarify the inclusion and exclusion criteria. Patient-related outcomes were included, though not as an inclusion criteria. Upon reading the papers the reviewers felt it seemed important to include the patient related health outcomes as a useful distinction given that these are those that may matter most to patients.

Comment #2: The results state that all studies reported "improved uptake of screening". This requires clarification because at least two of the studies included in the review (references 28 and 36) report the use of a specific screening tool with patients, but do not report any changes/improvements in screening uptake. Intervention studies were excluded if "uptake of or access to screening was not a main outcome". Studies 28 and 36 do not seem to have this as a main outcome.

Response: We thank the reviewer for raising this. In the studies noted, participants who used the tool received screening they would have not otherwise had, but we agree that because pre tool-use rates of screening were not recorded our sentence may be unclear. We have changed the text in the abstract (page 2, lines 14-15) to say that "all studies reported improved uptake of screening, or that patients received screening they would not have had without the intervention".
Reference 28 (Bressington et al. 2014): by agreeing to fill out the Health Improvement Profile tool (HIP) at baseline and follow-up, patients were screened and rescreened for physical health conditions. This might not have occurred without the intervention [HIP]. However, we fully agree with the reviewer that this was not intended as a main outcome of the study.
Reference 36 (Shuel et al. 2010): Table 4 (page 140 of the article) describes the % of patients who received additional screening as a result of taking part in the intervention [the HIP]:
Check for symptoms of diabetes and test for ketones if symptoms are present (6% of patients)
Confirm prostate screen at fixed intervals for patients over 50 years of age 16 (16% of patients)
Electrocardiogram performed (42% of patients)
As a result of taking part in the intervention, 14 referrals of potentially serious conditions [including raised glucose and lipids, hypertension and cardiac problems as a result of the intervention] led to various types of physical health screening. Without filling out the HIP, these patients may not have been referred to undertake these tests.

Comment #3: One of the main aims of a realist review is the development or refinement of theory. Although a lack of theory in the included studies is mentioned, there is not much discussion about theory or the potential relationships between the context, mechanisms or outcomes of included studies. Further development of such discussion would likely add to the quality of the manuscript.

Response: We thank the reviewer for raising this. We have added (page 10, final paragraph) a discussion on the potential relationships between the context, mechanisms or outcomes of included studies.

Comment #4: In the Abstract, "cross-sectional study designs" were classed as intervention studies. How is this the case?

Response: Thank you for raising this point. One study used a cross-sectional study design (Xiong et al. 2015, reference 30). The intervention targeted integrated care including asking about screening. It compared four different types of community programmes in the USA. The intervention was a test of integrated care delivered in 4 different settings.

Comment #5: SMI is defined as “psychosis or bipolar disorder”, but some the participants in some of included studies had other forms of SMI. It would be useful to specify how studies which included people with a wider variety of forms of SMI were judged for eligibility (i.e. was there a minimum percentage of psychosis participants).

Response: We thank the reviewer for this clarification request. Some of the participants in some of the included studies had mental health disorders other than psychosis or bipolar disorder. In those studies, there was a minimum of 45% of participants who had either psychosis or bipolar disorder. This clarification has been reported in the article on page 6, lines 14-17.

Comment #6: More clarification should be provided about using STROBE, as this usually relates to the quality of reporting of studies, rather than assessment of study quality/bias.

Response: We thank the reviewer for requesting this clarification. A sentence and reference 51 have been added to that effect on page 6, lines 22-24.

Comment #7: It is important to understand what the barriers and facilitators are to improving physical health care are for this population. Screening is central to health policy although we do not know if screening alone can lead to positive health outcomes, and have very little evidence about the most effective types of intervention beyond screening. Complex interventions that address multiple domains, including health behaviour and system barriers are urgently needed.

Response: We thank the reviewer for making this comment with which we entirely agree. In our paper we have noted the benefits of cancer screening (page 3, lines 19-20) and have cited our earlier work (page 3, lines 26-29) which describes the barriers and facilitators to cancer screening uptake in this population. We agree that more work is needed to understand this and have stated this on page 13, lines 19-22.

Comment #8: Although the authors state they have drawn on published realist review methodology and reporting guidance and some of this is evident I think it would be preferable to make the ‘programme theory’ more explicit. Screening is defined, and contrasted with monitoring but it would have been useful to know more about the different elements of screening e.g. targeted or multiple screening parameters, when and where in the care pathway screening was attempted/offered and how offered, what type of health professional undertook the screening and in which type of service (e.g. primary or secondary care). Some of this information is available in Tables 1 and 2 but I was surprised that there was not more attention to this, considering the research question.

Response: We thank the reviewer for making this important point. We have added additional information to Tables 1 and 2 on the different elements of screening:

-whether the screening was targeted or had multiple screening parameters
-when and where in the care pathway was screening attempted/offered and how was it offered
-what type of health professional undertook the screening and in which type of service (e.g. primary or secondary care)

Comment #9: Providing more information on the different elements of screening would have enabled some weighting to be given to the relative importance of the facilitators and barriers identified in all the studies reviewed and allow the reader to understand if the recommendations of the reviewers are based on appraisal evidence or opinion. For example, the statement in the abstract that screening "champions" may contribute to intervention success is confusing. It is not clear if this is just because some studies included this approach to screening in their methodology and reported it, or if there is evidence from this review that screening champions increase screening engagement rates.

Response: We thank the reviewer for this comment and have removed the 'screening champion' statement from the abstract.

In addition, we have added a comment in the discussion that different interventions may target different aspects of screening and that different barriers and facilitators may apply. However, the high level of heterogeneity and the limited quality of evidence meant that it is not possible to draw firm conclusions (page 12, lines 18-20).

Comment #10: When was the search conducted? Please include this in the methods section of your manuscript.

Response: Thank you for your comment. The search was undertaken in December 2016 (this information was included in the Methods section of the original manuscript on page 5, lines 1-2).

VERSION 2 – REVIEW

REVIEWER	Dr Daniel Bressington School of Nursing, The Hong Kong Polytechnic University, Hong Kong.
REVIEW RETURNED	22-Nov-2017

GENERAL COMMENTS	Many thanks for addressing the reviewers' comments. the paper seems much clearer now.

REVIEWER	Dr Jacquie White Faculty of Health Sciences, University of Hull, England, UK I am the author of one of the papers included in the review.
REVIEW RETURNED	06-Dec-2017

GENERAL COMMENTS	I am happy that all the identified issues have been addressed and look forwards to seeing this paper published.