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BRIEF REPORT

Harm reduction and pharmacotherapeutic interventions for the homeless and vulnerably housed: An empty systematic review

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On behalf of the Homeless Health Research Network Addictions Working Group

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INTRODUCTION

People experiencing homelessness or who are vulnerably housed lack stable, permanent, appropriate housing, or may be without immediate prospect, means and ability of acquiring it (Canadian Observatory on Homelessness, 2017). Substance use is disproportionately high among people experiencing homelessness and those who are vulnerably housed (Palepu et al., 2013). Homelessness can be both a cause and result of substance use, and it is important to distinguish occasional substance users from people experiencing a substance use disorder (Vangeest & Johnson, 2002). Substance use disorders are typically associated with the recurrent use of alcohol and/or drugs to the point of severe functional impairment (SAMHSA, n.d.). Once without a home, individuals often experience barriers to accessing treatment for addictions or may experience difficulty following treatment recommendations (Luchenski et al., 2017).

We will assess three interventions relating to substance use disorders that apply to people experiencing homelessness and those who are vulnerably housed: supervised consumption facilities, managed alcohol programs (MAPs) and pharmacotherapeutic interventions for opioid use disorder. Supervised consumption facilities are defined as facilities where people who use drugs can use pre-obtained drugs under medical supervision (Drug Policy Alliance, n.d.). A MAP typically includes shelter, medical assistance, social services and the provision of regulated alcohol to help residents manage alcohol dependence (Shepherds of Good Hope Foundation, n.d.). Finally, we will assess the effectiveness of opioid therapy medications including buprenorphine/naloxone, naloxone, naltrexone, methadone and injectable diacetylmorphine (heroin).

OBJECTIVE

To assess the effectiveness of supervised consumption facilities, managed alcohol programs and pharmacological interventions for opioid use disorder for people who are homeless or vulnerably housed.

METHODS

We used the Grading of Recommendations Assessment, Development, and Evaluation (GRADE) approach; the Campbell and Cochrane Collaboration Equity Methods Group; and an Expert Working Group consisting of homeless health researchers, academics, clinicians and individuals with lived experience of homelessness to conduct this review. We conducted a Delphi consensus process including 84 practitioners and 76 persons with lived experience to select interventions, populations and subgroups of interest (Shoemaker et al., in progress 2018). We submitted a protocol to the Campbell Collaboration (Pottie et al., under review). This systematic review adheres to the Preferred Reporting Items of Systematic Reviews and Meta-Analyses (PRISMA) guidelines (Moher et al., 2009).

Search Strategy

We developed a systematic search using relevant keywords and MeSH terms (See Appendix I) for relevant controlled trials. Keywords included “homeless”, “vulnerable populations”, “marginalised”, “effectiveness” and “program”. We searched Medline, Embase, CINAHL, PsycINFO, Epistemonikos, HTA database, NHSEED, DARE, and Cochrane Central from inception to February 2018. There were no language restrictions.

Selection criteria

We included articles that met the following criteria: (1) Population was homeless or vulnerably housed in a high income country. (2). Intervention was managed alcohol programs, supervised consumption facilities, or pharmacological interventions for opioid use disorder. We excluded interventions which utilized an abstinence-based approach. (3) Any comparison was considered eligible. (4) Trial must report on housing, mental health, substance use, quality of life, hospitalization, income or employment outcomes. (5) Eligible study designs included randomized controlled trials, nonrandomized controlled trials, controlled before-after studies and interrupted time series. We excluded observational studies.

Data Collection and Analysis

An independent team screened titles and abstracts in duplicate, followed by full-text assessments for eligibility using *a priori* selection criteria. Conflicts around whether an article met inclusion/exclusion criteria were resolved through discussion or the involvement of a third reviewer. Citation information was downloaded into Rayyan online software (Mourad et al., 2016). Risk of bias assessment for RCTs and non randomized trials in this review would have been performed using the criteria recommended by the Cochrane Handbook for Systematic Reviews of Interventions (Higgins 2011). Risk of bias assessment' for ITS and CBAs would

have followed criteria prepared by the EPOC group (EPOC 2012). For dichotomous data, the overall risk ratios (RR) and 95% confidence intervals (CI) would have been calculated. Weighted mean difference and 95% CIs would have been calculated for continuous data. If outcome measure instruments were similar but not identical, standard mean difference would have been calculated.

RESULTS

Our search identified 11,934 citations. After duplicates were removed, 7499 titles and abstracts were screened for inclusion. We screened 20 articles at full text. None of the articles met our full inclusion criteria. Of the 20 articles assessed at full text, 5 were systematic reviews whose reference lists were searched for additional relevant studies. No additional studies were identified due to: no included studies on homeless populations (n=2), no relevant interventions (n=1), empty review (n=1) and could not be retrieved (n=1). From the remaining 15 articles assessed at full text, reasons for exclusion were: wrong study design (n=6), intervention is abstinence-based (n=6), and irrelevant intervention (n=3).

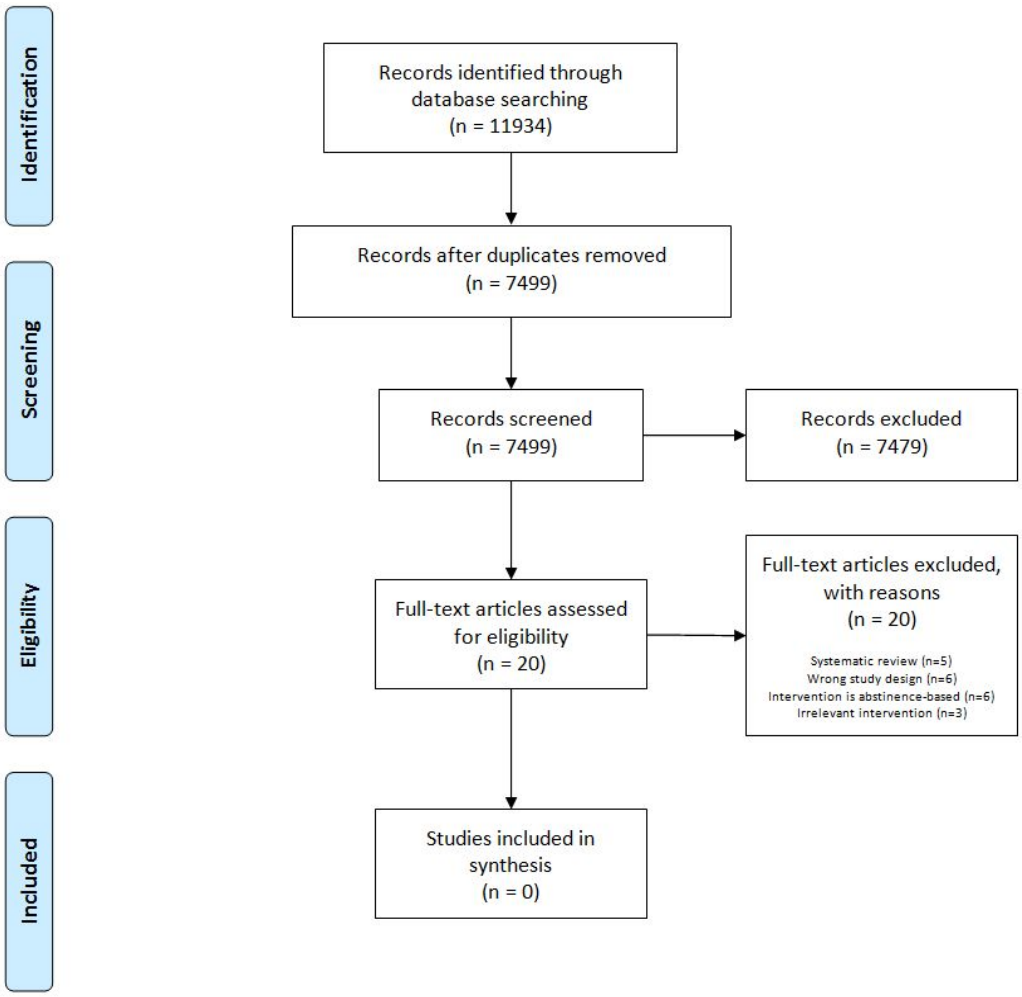

Figure 1: PRISMA Flow Diagram

DISCUSSION

This systematic review was intended to assess the effectiveness of supervised consumption facilities, managed alcohol program and pharmacological interventions for opioid use disorder for people who are homeless or vulnerably housed. No evidence from trials was identified; 20 articles were considered potentially relevant and were excluded. As supervised consumption facilities begin to emerge, studies on such pilot projects are often observational due to ethical concerns, but often include a large proportion of homeless participants. Existing reviews on supervised consumption facilities primarily include observational studies (Kennedy 2017; Potier 2014). Studies of the effectiveness of MAPs have historically been conducted as case studies and small sample pilot projects that target individuals with severe alcohol dependence or who consume non-beverage alcohol, as reported in one identified empty systematic review on MAPs (Muckle 2012). Finally, effectiveness of pharmacotherapeutic interventions is rarely assessed in transient and hard to reach populations.These results accurately reflect the existing evidence of managed alcohol programs, supervised consumption facilities and pharmacotherapeutic interventions for opioid use disorder among homeless or vulnerably housed populations, as experimental evidence is often scarce in this transient population.

A strength of this review is that we followed rigorous GRADE methodology to identify the highest quality evidence for consideration in this evidence synthesis. Possibility of searching, study selection, data collection or data analysis bias is not possible given that no studies were included in the review. A limitation of this review is the type of studies considered for comparison; RCTs and nonrandomized controlled trials may be inappropriate evaluation designs for supervised consumption facilities and MAPs given that withholding services could constitute doing harm to the control group.

CONCLUSIONS

There was no evidence identified on the effectiveness of supervised consumption facilities, managed alcohol programs or pharmacotherapeutic interventions for opioid use disorder among homeless or vulnerably housed populations. Future systematic reviews should consider broadening population and study design criteria in order to capture existing evidence on these interventions.

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Conflicts of interest: The authors declare no conflicts of interest.

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Appendix I: Example Search Strategy

1 vulnerable populations/ poverty areas/

2 ((deprived or destitute? or impoverished or low income or marginalised or marginalized or needy or poverty or vulnerable) adj2 (adolesc$ or child$ or famil$ or men or people or youth? or women)).tw,kf.

3 homeless persons/ homeless youth/ runaway behavior/

4 (homeless$ or runaway?).tw,kf.

5 (temporar$ adj2 (accommodat$ or home? or hous$)).tw,kf.

6 ((based or housed or residen$ or temporar$) adj2 shelter?).tw,kf.

7 or/1-7

8 exp program evaluation/

9 (effectiveness or initiative? or prevent$ or program$ or reduc$ or strateg$ or treatment).tw.

10 or/8-9

11 systematic review/ meta analysis/ randomized controlled trial/ controlled clinical trial/ pragmatic clinical trial/ controlled before-after studies/ interrupted time series analysis/ controlled before-after studies/ (randomised or randomized).ab,kf.

12 (before adj2 after adj5 (design$ or study or trial)).tw,kf.

13 ((preintervention? or pre intervention? or postintervention? or post intervention?) adj5 (study or trial)).tw,kf.

14 ((pre test or pretest or (posttest or post test)) adj2 (design$ or method$ or study or trial)).tw,kf.

15 or/11-14

16 7 and 10 and 15