A systematic review of smoking, smoking cessation and the homeless: there is a will but is there a way?

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Background

Smoking continues to be a lead risk factor of morbidity and early mortality which is particularly unevenly distributed amongst marginalised groups such as the homeless. In the UK, the Department of Health's' (2017)[1] tobacco control plan has explicitly stated that health inequalities caused by smoking must be reduced. In order to achieve this aim, understanding the landscape of smoking in one of the most socioeconomically deprived communities is needed. Little work to date has addressed smoking cessation in homeless groups. As such this is the first systematic review of the evidence relating to smoking prevalence, efficacy and effectiveness of smoking interventions, and barriers and facilitators to smoking cessation/reduction amongst homeless adults.

Method

Study Design
A systematic review (registered with PROSPERO: CRD42017081843) of peer-reviewed research literature

Primary outcomes:
- rates of smoking prevalence
- Rates of smoking cessation
- Effective methods of smoking cessation/reduction
- Barriers and facilitators to smoking cessation/reduction

Searches: Conducted from January – May 2017 (see diagram for databases), using search terms '*smoking' AND 'homeless' AND 'tobacco'*.

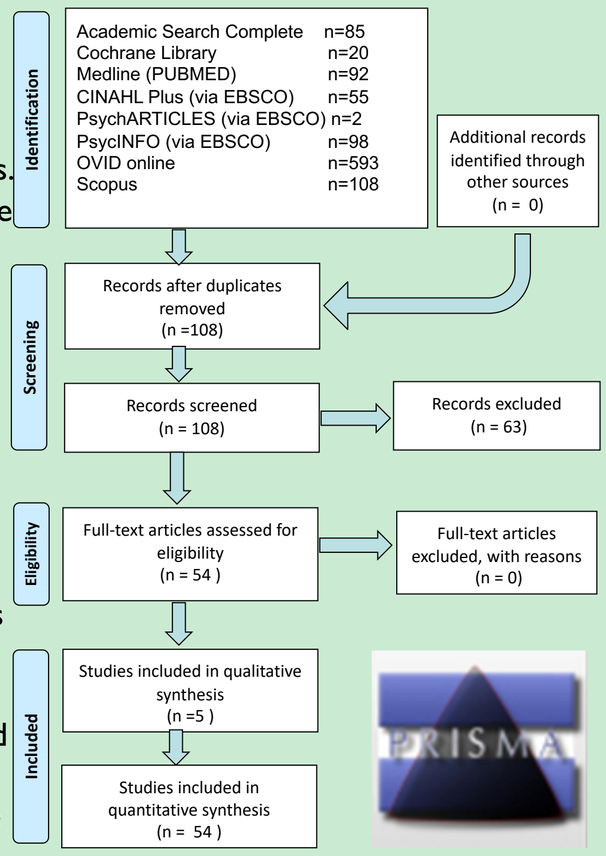
Participants/population:
Homeless adult (18+ years) smokers. Accessing services provided to those who are deemed homeless; both temporary and long-term homelessness[2].

Intervention(s), exposure(s)

Inclusions:
- Written in English
- Documented smoking rates in adult (18+) homeless populations and/or measured efficacy and effectiveness of cessation interventions and/or documented barriers and facilitators to quit
- Participants were users of smoke

Exclusions:
Any studies where the primary and/or secondary aim was not related to smoking behaviours in the homeless

Risk of bias (quality) assessment:
Assessed independently by two reviewers following a standardised approach[3]. ROBINS_I for nonrandomised intervention studies[4] and the quality appraisal checklist[5] for qualitative studies.



Results

Overview of studies (n):

Smoking prevalence and characteristics:
- 14 studies (n=14,716) reported current prevalence rates = 57-82% (mean = 73%)
- Follow up rates varied 1-26 weeks
- Drop rates ranged from 10-77%

Smoking Cessation Interventions:
12 studies reported various types of interventions (e.g. personalised counselling, NRT, MI, combinations). Of the 5 studies which reported either 24-hour or 7-day point prevalence abstinence rates ranged from 4%-45%.

Barriers and facilitators to smoking cessation:
37 studies identified barriers and facilitators to smoking cessation programmes.

Barriers were categorised as:
- Personal (e.g. comorbidities, own awareness and knowledge)
- Social (e.g. pressure from other smokers, ability to socialise)
- Structured and practical (e.g. access, staff not prioritising client's needs)

Facilitators included:
- Offering financial incentives
- Social support
- Trained staff

Quality Assessment:
The one RCT[6] was assessed as uncertain risk of bias. Other intervention studies were judged as low/medium risk of bias. Biases were observed in the reporting of barriers, with less weight to possible facilitators to engaging in smoking cessation.

Limitations:
We identified only one RCT[6] (n=430). There was a lack of well conducted intervention studies, large methodological inconsistencies between studies (e.g. different outcome measures reported, methods offered, absence in recording abstinence measures) and data mostly derived from the US.

Conclusion

Smoking prevalence is disproportionally high amongst homeless adults, even when compared to other marginalised groups. Efforts to reduce smoking rates and subsequent health inequalities in the homeless represent a key group in need of support. Due to the low number of RCTs, the majority of research deriving from the US (hampering extent to which data represents the homeless elsewhere) and wide differences in intervention studies there is no evidence to support one type of effective intervention for this target group. There is a need for greater consistency in research design and treatment outcomes. Evidence does suggest however smoking cessation interventions are accepted and taken up by homeless adults but cessation is low. Multi-targeted and holistic approaches are needed, placing the person and the situation in the centre of care, including interventions which offer staff support and training and incentives for follow-up.

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