Review

Smoking cessation for substance misusers: A systematic review of qualitative studies on participant and provider beliefs and perceptions

Sarah Gentry*, Jean Craig, Richard Holland, Caitlin Notley

Norwich Medical School, University of East Anglia, Norwich, United Kingdom

ARTICLE INFO

ABSTRACT

Introduction: Smoking prevalence among those in substance misuse treatment remains much higher than the general population, despite evidence for effective cessation interventions that do not negatively impact substance misuse outcomes. This systematic review summarises qualitative data on barriers and facilitators to smoking cessation for people in substance misuse treatment, participants' and providers' perceptions about effects of smoking cessation on substance misuse treatment, timing of intervention delivery and aspects of interventions perceived to be effective.
Methods: Systematic review of qualitative studies and thematic synthesis of published qualitative data.
Results: 10939 records and 132 full texts were screened. 22 papers reporting on 21 studies were included. Key themes identified were: strong relationships between smoking and other substance misuse; environmental influences; motivation; mental health; aspects of interventions perceived to be effective/ineffective; barriers and facilitators to intervention implementation; smoking bans/restrictions; and relationships with professionals. Many service users were motivated toward smoking cessation but were not offered support. Some felt interventions should be delivered after substance misuse treatment, whilst others felt concurrent/dual interventions would be beneficial, due to strong associations between smoking and other substances. Treatment providers felt they lacked training and resources for supporting smoking cessation, and were concerned about impact on substance misuse outcomes.
Conclusions: Many substance misusers who also smoke are motivated to quit but perceive a lack of support from professionals. Additional training and resources are required to enable professionals to provide the support needed. More research is required to develop enhanced packages of care for this deprived group of smokers.

1. Introduction

Smoking prevalence amongst those in substance misuse treatment is much higher than the general population. In the United Kingdom (UK), United States of America (USA), Australia, Canada and Switzerland, estimates of smoking prevalence in this group range from 77% to 98% (Clarke et al., 2001; McCarthy et al., 2002; Kelly et al., 2012; Bernstein and Stoduto, 1999; Best et al., 1998; Hser et al., 1994; Tacke et al., 2001; Zullino et al., 2000; Baca and Yahne, 2009; Cookson et al., 2014), whilst smoking prevalence in the general population is estimated at 15.5% in England in 2016 (NHS Digital, 2017), 15.1% in the USA in 2015 (Centers for Disease Control and Prevention, 2016), 17.7% in Canada in 2015 (Statistics Canada, 2017) and 14.7% in Australia 2014–15 (The Department of Health, 2017). According to a 2014 survey of people in residential addiction services in London, UK, among the 88% of respondents who were current smokers, 79% expressed a desire to quit but 56% had never been offered support for smoking

cessation and only 15% had been offered support during their current treatment episode (Cookson et al., 2014).

Smoking causes considerable morbidity and mortality among substance misusers. Hser et al. (Hser et al., 1994) found that the death rate among substance misusers who concurrently smoked was four times higher than non-smoker substance misusers. Hurt et al. (Hurt et al., 1996) found that in a population who had received inpatient treatment for substance misuse, tobacco-related diseases were the leading cause of death. There are a wide variety of smoking cessation methods (McNeill et al., 2015; Aveyard and West, 2007; Thurgood et al., 2016) but no specific National Institute for Health and Care Excellence (NICE) guidance on smoking cessation for people in substance misuse treatment/recovery (NICE, 2013a; NICE, 2013b; NICE, 2013c) and no obvious theoretical framework upon which to base intervention development.

A meta-analysis of 19 randomised controlled trials (RCTs) of smoking cessation interventions for people in substance misuse treatment/recovery found interventions were effective in the short term and

associated with a 25% increased likelihood of long term abstinence of other substance misuse, although evidence of intervention effectiveness for smoking cessation in the long term was limited (Prochaska et al., 2004). A more recent systematic review of 17 studies found some evidence for the effectiveness of nicotine replacement therapy (NRT), behavioural support and combination approaches, and some evidence of improved substance misuse outcomes (Thurgood et al., 2016).

A previous systematic review of qualitative and quantitative (i.e. longitudinal, cross-sectional or cohort surveys) studies has been conducted, with wide inclusion criteria, assessing barriers to smoking cessation across vulnerable groups (Twyman et al., 2014). This previous review included just one qualitative study of substance misusers who were homeless. The review identified common barriers among this group of substance misusers, and the other vulnerable groups studied. Barriers included smoking for stress management, lack of support from service providers and high prevalence and acceptability of smoking. Similarly, a previous mixed-methods systematic review of mental health professionals' attitudes towards smoking cessation among their clients has been conducted (Sheals et al., 2016). Although this review included those working with substance misusers, results for this group were not separately analysed.

This systematic review aims to extend and enhance the findings of existing reviews (Thurgood et al., 2016; Prochaska et al., 2004; Twyman et al., 2014; Sheals et al., 2016; Apollonio et al., 2012) by providing a context for interpreting and explaining the results of the quantitative syntheses on barriers and facilitators for smoking cessation, in the specific context of substance misuse services. A qualitative synthesis aims to go beyond small, context specific studies to attempt to draw broader, more transferable lessons from the data.

The protocol was registered and published in PROSPERO (Gentry et al., 2015). Review questions were:

- What are the reported barriers and facilitators to smoking cessation/reduction and relapse prevention for people in substance misuse treatment/recovery?
- Do people in substance misuse treatment/recovery or their treatment providers perceive smoking cessation/reduction interventions as having an impact on substance misuse treatment/recovery and how?
- When do people in substance misuse treatment/recovery and their treatment providers perceive to be the right time for a smoking cessation/reduction intervention?
- What aspects of smoking cessation/reduction interventions for those in substance misuse treatment/recovery are perceived to be effective/ineffective and why?

2. Materials and methods

2.1. Inclusion criteria

2.1.1. Participants

People in substance misuse treatment or recovery ('service users'), and those involved in providing their substance misuse treatment ('treatment providers'), in any country or setting, of any age were included. We included all forms of substance misuse, including illegal or prescribed drugs, legal highs and alcohol. 'In treatment' included participants enrolled in inpatient or outpatient treatment programs. Participants were considered 'in recovery' if they met the UK Drugs Policy Definition of 'voluntarily sustained control over substance use which maximises health and wellbeing and participation in the rights, roles and responsibilities of society' (UK Drug Policy Commission, 2008).

2.1.2. Interventions

We included studies investigating the effectiveness of smoking cessation/reduction interventions where a qualitative evaluation was performed. Non-interventional studies evaluating smoking cessation/reduction initiatives for substance misusers, including implementation of smoking bans/restrictions, were included. This was considered important as those in treatment or recovery from substance misuse are more likely to spend time subject to smoking bans/restrictions than the general population, e.g. whilst an inpatient in a treatment centre with a smoking ban, and so this has the potential to be a significant barrier or facilitator to smoking cessation for this group. We included studies seeking views on smoking cessation of those in substance misuse treatment/recovery and treatment providers.

2.1.3. Outcomes

We included studies reporting on at least one of the following outcomes:

- Participants' and treatment providers' perceptions about barriers and facilitators to successful smoking cessation/reduction and/or relapse prevention;
- Participants' and providers' views about whether smoking cessation/reduction interventions impact ongoing treatment/recovery from other substance misuse;
- Participants' and providers' views about if/when smoking cessation/reduction is appropriate;
- Participants' perceptions about effective/ineffective aspects of smoking cessation/reduction interventions.

2.1.4. Types of study

Qualitative study designs with any recognised method of data collection (e.g. focus groups) and analysis from any discipline or theoretical tradition (e.g. phenomenological analysis). We included qualitative data reported in interventional and mixed methods studies if it was clearly written in the title/abstract that qualitative data were sought.

2.2. Search strategy

Following searches from similar systematic reviews (Thurgood et al., 2016; Twyman et al., 2014; Apollonio et al., 2012) a draft search strategy was developed in MEDLINE using a combination of MeSH and free text terms. We did not specify study types due to poor indexing of qualitative studies (Centre for Reviews and Dissemination, 2009). This strategy was then tested against a previously identified sample of relevant papers. Once finalised the search strategy was adapted for other databases. The following databases were searched:

- MEDLINE (via Ovid SP)
- EMBASE (via Ovid SP)
- Cochrane Central Register of Controlled Trials (CENTRAL) (The Cochrane Library)
- PsychINFO (via EBSCOhost)
- Cumulative Index to Nursing and Allied Health Literature (CINAHL) (via EBSCOhost)
- Applied Social Sciences Index and Abstracts (ASSIA)
- ProQuest Dissertation and Theses Database
- Web of Science

We searched from database inception to August 2016. We screened reference lists of included studies and systematic reviews identified by our electronic searches. Only studies published in English were included. See Box 1 for MEDLINE search strategy.

2.3. Study selection

Search results were merged across databases using Endnote and duplicates removed. Titles and abstracts were assessed for eligibility by one author according to pre-specified inclusion criteria with 10% of excluded studies double screened by a second reviewer. In all cases, the