

A SYSTEMATIC REVIEW OF TOBACCO TREATMENT INTERVENTIONS FOR PREGNANT WOMEN WHO USE TOBACCO AND OTHER SUBSTANCES

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BACKGROUND

- Tobacco smoking + alcohol and other drugs during pregnancy have additive and significant harmful effects on mother and baby
- Smoking prevalence rates in pregnant women who smoke and use substances range from 71 to 95%
- Despite a desire to stop, most face barriers that will see them continue to smoke during pregnancy and beyond

Physiological barriers to cessation



High incidence comorbid mental illness



High consumption of tobacco → greater dependence



More severe withdrawal symptoms



Nicotine enhances psychoactive effects of drugs



Nicotine decreases cognitive effects of alcohol consumption

Social & systemic barriers to cessation



Social norms around smoking



High levels of partner smoking



Prioritisation of substance use treatment



Clinician lack of knowledge, time, confidence & skills



Few targeted cessation treatments available

RATIONALE

- Urgent focus to reduce smoking in health-disparate groups
- Few evidence-based interventions targeting these women
- Innovative treatments needed to address many barriers
- Understanding required of what treatments have / have not worked in maternal substance use populations

OBJECTIVE



To systematically examine **all** studies that have trialled **behavioural** and/or **pharmacological tobacco cessation interventions** in populations of **pregnant** women who are **nicotine dependent** with problematic **alcohol** and/or other **psychoactive substance** use

METHODS

Study Inclusion



Tobacco = cigarettes cigars pipes hookah's



Any behavioural or medical treatment



Any study design

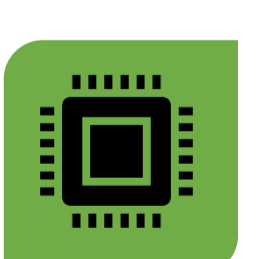


Any language



No restriction on publication timing

Study Sources



Electronic Databases

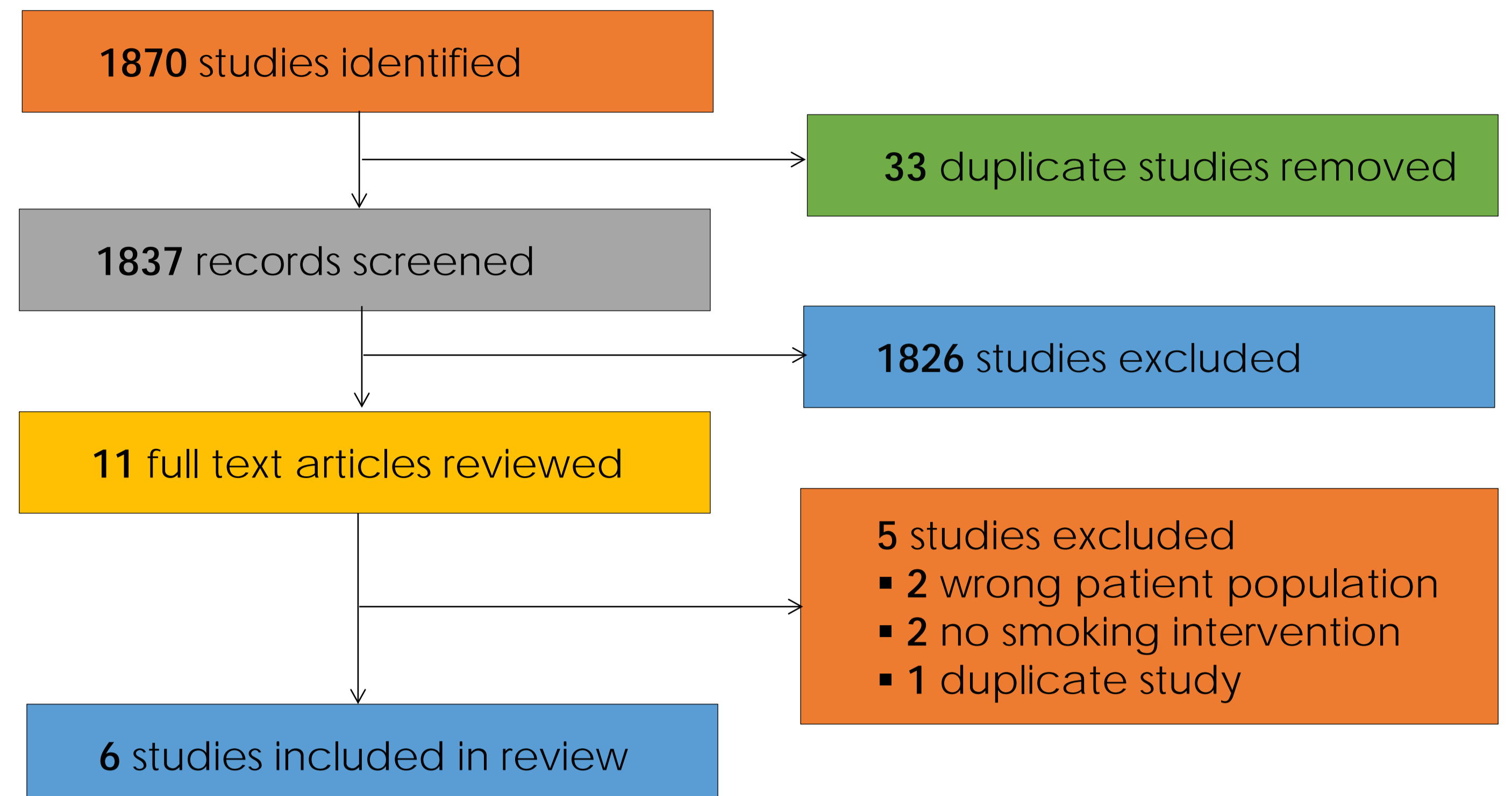
- MEDLINE
- PsycINFO
- CINAHL
- EMBASE
- ProQuest



Other Sources

- Search references of included full-texts
- Google Scholar - review first 20 pages of results
- Contact experts in the field re current or unpublished work

RESULTS



INCLUDED STUDIES

Author (year)	Study	N	Intervention	Time	Significant Outcomes
Ker M et al. (1996)	Inpatient program evaluation	40	1. Prize-based incentives for carbon monoxide (CO) samples 2. Long-acting NRT 3. Group education	9-12 months	<ul style="list-style-type: none"> Decrease in days/month smoking Reduced CO Increased motivation to quit
Waller C et al. (1996)	Program evaluation	514	1. Health education 2. Referral to quit smoking services 3. One-on-one education	Consent to delivery	<ul style="list-style-type: none"> 49.9% self-reported reducing or quit Increased knowledge of smoking related harm
Haug N et al. (2004)	RCT	63	MET (Motivational Enhancement Therapy) vs Std care (advice + printed materials)	6 weeks	<ul style="list-style-type: none"> No diff between MET and SC MET advanced further in stage of change
Holbrook A et al. (2011)	Comparative study	44	1.5 A's counselling intervention 2. Group education	6 weeks	<ul style="list-style-type: none"> 49% decrease in cigs/day
Tuten M et al. (2012)	RCT	102	Contingent incentives (CI) vs Yoked incentives vs Std care (health info + printed materials)	12 weeks	<ul style="list-style-type: none"> 31% CI group abstinent during pregnancy CI group had lowest mean CO overall Lower % of CI group babies born pre-term
Fallin-Bennett A et al. (2019)	Single arm pilot	50	1. Cessation & Reduction program 2. Addressing barriers 3. Group counselling	3 months	<ul style="list-style-type: none"> Nicotine dependence reduced Cigs/day (past 30 days) reduced 2nd hand smoke exposure reduced Depression/anxiety reduced

CONCLUSIONS



Strongest results → financial incentives + support



All offered counselling &/or education



Only one offered nicotine replacement therapy



Overall study quality was poor (EPHPP)



Comparisons difficult due to range of study methods & outcomes

KEY MESSAGES

- Targeted cessation interventions are scarce
- Number of studies reflects importance given to smoking cessation in this group
- Interventions for general populations do not address women's complex needs
- Compelling need for innovative, tailored interventions
- More recent studies are of better quality & offer better support
- Combination of behavioural / pharmacological support and incentives appears promising