Efficacy of smoking cessation intervention among special populations: review of the literature from 2000 to 2005

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CRD summary
The authors concluded that there was insufficient evidence about the effectiveness of smoking cessation interventions in special populations and further research is required. Although the authors’ conclusion appears to follow from the results presented, the poor reporting of review methods and failure to assess study quality make it difficult to confidently assess the reliability of the review.

Authors’ objectives
To evaluate the efficacy of smoking cessation interventions in specified special populations.

Searching
MEDLINE, PsycINFO, PsycARTICLES, and the databases of the U.S. Centers for Disease Control and Prevention and the U.S. Surgeon General’s Office were searched for studies published in English between 2000 and May 2005; the search terms were reported.

Study selection
Clinical trials that evaluated the effect of smoking cessation interventions on smoking cessation outcomes in specific special populations (women; older adults; smokers with a psychiatric diagnosis; smokers addicted to illicit drugs, alcohol or both; gay, lesbian and transgender smokers; American Indians and Alaska Natives; African Americans; Hispanics; and Asian Americans) were eligible. The review also included results from a previous review (see Other Publications of Related Interest), but this abstract only refers to primary studies. Studies focused on smoking cessation during pregnancy were excluded.

The included studies were randomised controlled trials (RCTs) and quasi-experimental studies. They evaluated the following types of smoking cessation interventions, either alone or in combination: brief advice, cessation medication, provision of special education material, contingency management, behavioural intervention and motivational interviewing. Most of the studies also included smoking cessation medication, while some included weight gain prevention components. Most of the included studies measured smoking cessation using expired carbon monoxide; one relied on self-reported smoking cessation. One study with a short-duration of follow-up (1 week) was excluded. The duration of follow-up in the included studies ranged from 1 week to 30 months (where reported).

The authors did not state how the papers were selected for the review, or how many reviewers performed the selection.

Assessment of study quality
The authors did not state that they assessed validity.

Data extraction
For each study, the percentage quit rate was presented for various follow-up periods. The authors did not state how the data were extracted for the review, or how many reviewers performed the data extraction.

Methods of synthesis
The studies were grouped by population of interest and combined in a narrative.

Results of the review
Fifteen studies (n=3,696) were included: 11 RCTs (n=2,744) and 4 quasi-experimental studies (n=952).

Women (4 studies: 3 RCTs, n=1,032 and 1 quasi-experimental study, n=93): 3 studies reported no significant difference in smoking cessation rates at final follow-up in intervention groups compared with controls. The text stated
that the fourth study reported a significantly higher cessation rate in the intervention group after 1 year; from tables it appears that the difference was not significant at the final 30-month follow-up.

Smokers with a psychiatric diagnosis (2 RCTs, n=98): both studies reported significantly higher smoking cessation rates in the intervention groups compared with controls in the short term, but this was not maintained at longer-term follow-up.

Smokers addicted to illicit drugs and/or alcohol (5 RCTs, n=1,014): the studies reported significantly higher smoking cessation rates in the intervention groups compared with controls during or just after the end of the intervention but this was not consistently maintained at longer-term follow-up (6 months or more).

Gay, lesbian and transgender smokers (1 quasi-experimental study, n=98): this study reported that 46% of gay men stopped smoking post intervention.

African Americans (1 RCT, n=600): this study reported significantly higher smoking cessation rates in the intervention group compared with the control at all follow-up periods.

Hispanics (1 quasi-experimental study, n=615): this study reported significantly higher self-reported smoking cessation rates at 6 months for less-acculturated Hispanics compared with bicultural Hispanics and non-Hispanic Whites (21.3% versus 9.2% versus 12.9%, p<0.05).

Asian Americans (1 quasi-experimental study, n=146): this study reported no significant difference in smoking cessation rates for the intervention group compared with the control.

No studies of older adults or American Indians and Alaska Natives were found.

Authors' conclusions

There was insufficient evidence about the effectiveness of smoking cessation interventions in special populations. Further research is required.

CRD commentary

The review question was stated clearly. Several relevant sources were searched but, since no attempts were made to minimise either publication or language bias, other relevant studies might have been missed. The methods used to select studies and extract the data were not described, so it is not known whether any efforts were made to reduce reviewer error and bias. Study validity was not assessed, thus the results from these studies and any synthesis may not be reliable. The studies were appropriately grouped and combined in narrative. Although the authors' conclusion appears to follow from the results presented, the lack of reporting of review methods and lack of an assessment of study quality make it difficult to confidently assess the reliability of the review.

Implications of the review for practice and research

Practice: The authors stated that there is insufficient evidence to provide clear guidelines on smoking cessation interventions for these special populations.

Research: The authors stated that further research is required to identify effective smoking cessation interventions for special populations (women; older adults; smokers with a psychiatric diagnosis; smokers addicted to illicit drugs, alcohol or both; gay, lesbian and transgender smokers; American Indians and Alaska Natives; African Americans; Hispanics; and Asian Americans).

Bibliographic details


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Other publications of related interest

Indexing Status
Subject indexing assigned by NLM

MeSH
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Record Status
This is a critical abstract of a systematic review that meets the criteria for inclusion on DARE. Each critical abstract contains a brief summary of the review methods, results and conclusions followed by a detailed critical assessment on the reliability of the review and the conclusions drawn.