Smoking cessation interventions in U.S. racial/ethnic minority populations: an assessment of the literature

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CRD summary
This review found that most studies focused on African-Americans, and that knowledge of the effective strategies for smoking cessation for some racial/ethnic groups in the USA is limited. The review lacked methodological detail and failed to present its findings clearly, either by specific ethnic group or by intervention component(s).

Authors' objectives
To examine the effects of smoking cessation interventions in racial/ethnic minority populations in the USA.

Searching
MEDLINE (from 1985 to 2001), PsycINFO and the Social Sciences Citation Index were searched; the search terms were reported. This was supplemented by author searches based on references cited in the retrieved articles. Only published data were included. The authors did not report any language restrictions.

Study selection
Study designs of evaluations included in the review
Inclusion criteria for the study design were not specified. The included studies were experimental or quasi-experimental studies, or uncontrolled (pre-test post-test) studies.

Specific interventions included in the review
All interventions for smoking cessation were eligible for the review. The included studies were of clinic- and non-clinic-based interventions. The non-clinic-based interventions were delivered through schools, churches, or by mail and telephone contacts. The interventions in the included studies used printed materials (tailored or untailored), some form of counselling (individual or group), videos, and systems prompts. Some of the clinic-based interventions used a recognised behavioural paradigm as the basis for their intervention. Some interventions were culturally specific, others were not. Pharmacological smoking cessation agents were not included in this review.

Participants included in the review
Studies of racial and ethnic minority adult (aged over 18) populations in the USA were eligible: Asian Americans/Pacific Islanders, Black/African Americans, Hispanic Americans, and Native Americans/Alaska Natives. Studies of broader populations were included if the data for specific minority groups could be extracted, or if the ethnic group made up at least 50% of the population. The majority of the included studies were of Black Americans.

Outcomes assessed in the review
Studies that reported cessation rates were eligible. The primary outcome in the review was the proportion of patients achieving abstinence.

How were decisions on the relevance of primary studies made?
The authors did not state how the papers were selected for the review, or how many reviewers performed the selection.

Assessment of study quality
Data pertinent to the quality of the studies were recorded: selection of population, randomisation, methods of data analysis, attrition rates and adjustment for attrition. However, whether or not these were used to assess study quality was unclear.
Data extraction
Six reviewers were involved in the initial development of the database, and a multistage process helped to standardise data entry. At least two individuals coded each article into the database, with any ambiguities or disagreements resolved by a third reviewer.

Methods of synthesis
How were the studies combined?
The study findings were combined in a narrative. The synthesis focused on whether or not the intervention under investigation had been successful or not. 'Successful' was defined as a statistically significantly higher rate of abstinence in the active group compared with the control group, or if a statistically significantly lower overall prevalence was reported in the treatment group when prevalence estimates were given. The synthesis attempted to identify the important components of successful interventions.

How were differences between studies investigated?
The synthesis was divided into clinic- and non-clinic-based interventions and various aspects of the study designs. Differences between the studies within these categories were discussed in the text.

Results of the review
Thirty-six studies were included in the review: 21 randomised controlled trials (RCTs), 10 quasi-experimental studies and 5 uncontrolled studies. The number of participants was not reported by study or overall.

Three studies were of Native Americans, three were of Asian Americans, 23 were of African Americans and 10 were of Hispanic Americans; there was some overlap between studies.

Clinic-based interventions (12 studies). Six clinic-based interventions were successful (results from 4 RCTs and 2 quasi-experimental trials). All six successful interventions used counselling, with five using individual counselling. Three also used systems prompts and physician training. Tailored follow-up and culturally specific materials were used in 2 of the 3 successful RCTs.

Non-clinic-based interventions (19 studies).
Eight non-clinic-based interventions were successful (results from 4 RCTs and 4 quasi-experimental trials). The two most reliable studies (RCTs that used biochemical verification of smoking cessation) both used culturally specific print and video or audio material.

Authors' conclusions
A disproportionate number of studies focused on African Americans in comparison with other racial and ethnic groups. More research is needed to identify interventions that can reduce smoking in racial and ethnic groups in the USA.

CRD commentary
The review appeared well conducted but aspects were poorly reported, making an assessment of the methodology difficult. The inclusion criteria for the review were unclear, for example they were not explicit about the review's focus on behavioural interventions. The literature search was limited, but as only U.S.-focused studies were of relevance this was probably adequate. Unpublished data were not sought and publication bias was not tested. Study quality was not incorporated systematically into the review.

Details of the studies were tabulated although, importantly, the number of participants was not reported. Despite the studies being grouped into experimental RCTs, quasi-experimental and uncontrolled studies, the importance of this was used inconsistently in the narrative. The review failed to present its findings clearly, either by specific ethnic group or by intervention component(s). Given the preponderance of studies in one racial and ethnic group, the authors' rather general conclusions are supported by the review.
Implications of the review for practice and research
Practice: The authors did not state any implications for practice.

Research: The authors stated that more research is needed to identify the effective interventions in racial and ethnic minorities in USA and whether the interaction of pharmacological and behavioural treatments differs across racial/ethnic groups.

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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.