Systematic Review: Smoking Cessation Intervention Strategies for Adults and Adults in Special Populations


Tobacco use is the leading cause of preventable illness and death in the United States. Although smoking cessation interventions have been shown to work, questions remain about how to increase their efficacy. We conducted a systematic evidence review to examine strategies for effective tobacco treatment in adults and special populations, such as those with psychiatric conditions or substance abuse problems.

Our review included studies evaluating the efficacy of cessation strategies, such as self-help, counseling, single pharmaceutical agents, combined pharmacotherapies, and pharmacotherapies combined with psychological counseling. We assessed each study for risk of bias and graded the overall body of evidence for strength of evidence.

Our research findings were consistent with previous reviews. Counseling and pharmacotherapy, used either alone or in combination, can improve rates of success with quit attempts, although counseling by itself has only mixed effects on long-term cessation. Pharmacotherapy (for instance, bupropion; paroxetine; and nicotine gum, patch, and nasal spray), used individually or in combination, and pharmacotherapies combined with counseling can significantly increase cessation. Self-help strategies, such as receiving an educational manual, only marginally affect quit rates and are ineffective used alone.

Using effective smoking cessation treatments is strongly encouraged for all populations, especially those with high and heavy rates of smoking. Persons with co-occurring psychiatric and substance abuse problems and pregnant women are more challenging patient populations, but interventions effective for general populations are appropriate as well for special populations.