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# Effectiveness of Individual Real-Time Video Counseling on Smoking, Nutrition, Alcohol, Physical Activity, and Obesity Health Risks: Systematic Review

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## Abstract

**Background:** Real-time video communication technology allows virtual face-to-face interactions between the provider and the user, and can be used to modify risk factors for smoking, nutrition, alcohol consumption, physical activity, and obesity. No systematic reviews have examined the effectiveness of individual real-time video counseling for addressing each of the risk factors for smoking, nutrition, alcohol consumption, physical activity, and obesity.

**Objective:** This systematic review aims to examine the effectiveness of individually delivered real-time video counseling on risk factors for smoking, nutrition, alcohol consumption, physical activity, and obesity.

**Methods:** The MEDLINE (Medical Literature Analysis and Retrieval System Online), EMBASE (Excerpta Medica Database), PsycINFO, Cochrane Register of Controlled Trials, and Scopus databases were searched for eligible studies published up to November 21, 2019. Eligible studies were randomized or cluster randomized trials that tested the effectiveness of individual real-time video communication interventions on smoking, nutrition, alcohol, physical activity, and obesity in any population or setting; the comparator was a no-intervention control group or any other mode of support (eg, telephone); and an English-language publication.

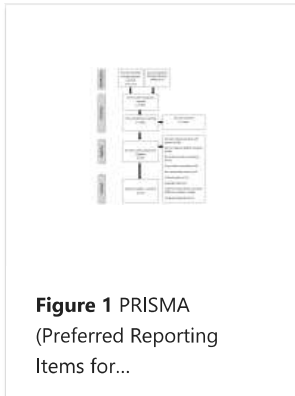
**Results:** A total of 13 studies were eligible. Four studies targeted smoking, 3 alcohol, 3 physical activity, and 3 obesity. In 2 of the physical activity studies, real-time video counseling was found to significantly increase physical activity when compared with usual care at week 9 and after 5 years. Two obesity studies found a significant change in BMI between a video counseling and a documents group, with significantly greater weight loss in the video counseling group than the in-person as well as the control groups. One study found that those in the video counseling group were significantly more likely than those in the telephone counseling group to achieve smoking cessation. The remaining studies found no significant differences between video counseling and telephone counseling or face-to-face counseling for smoking cessation, video counseling and face-to-face treatment on alcohol consumption, video counseling and no counseling for physical activity, and video counseling and face-to-face treatment on BMI. The global methodological quality rating was moderate in 1 physical activity study, whereas 12 studies had a weak global rating.

**Conclusions:** Video counseling is potentially more effective than a control group or other modes of support in addressing physical inactivity and obesity and is not less effective in modifying smoking and alcohol consumption. Further research is required to determine the relative benefits of video counseling in terms of other policy and practice decision-making factors such as costs and feasibility.

**Keywords:** alcohol drinking; diet; mobile phone; obesity; physical activity; smoking cessation; telehealth; videoconferencing.

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