

Comparing In-Person Counseling with Web-Based Lifestyle and Medication Interventions to Reduce Coronary Heart Disease Risk

The following is a synopsis of “A Comparison of Live Counseling with a Web-Based Lifestyle and Medication Intervention to Reduce Coronary Heart Disease Risk: A Randomized Clinical Trial,” published in the July 2014 issue of *JAMA Internal Medicine*.



What is already known on this topic?

The most common type of heart disease in the United States is coronary heart disease (CHD), which can lead to heart attack. Healthy lifestyle behaviors and appropriate medications can reduce risk for CHD. However, helping patients make lasting lifestyle changes and take their risk-reducing medications as prescribed by their physician can be challenging in clinical practice. Primary care clinicians often lack needed skills and resources to offer patients lifestyle and medication counseling that effectively reduce CHD risk.

Although counselor interventions provide an opportunity for in-person interaction and can be more tailored to each patient, increasing evidence supports the effectiveness of Web-based interventions in reducing CHD risk as well. These online approaches achieve greater reach, offer flexibility to patients with regard to intervention timing and delivery, and minimize costs and demands on clinic staff. However, few joint lifestyle and medication programs based in the primary care setting have been evaluated in comparative effectiveness studies.

What is added by this document?

The authors of this study developed a combined lifestyle and medication intervention to reduce CHD risk that could be delivered by an in-person counselor or via a Web-based program. Participants chose at least one of four strategies for CHD risk reduction: dietary changes, physical activity, smoking cessation, or medication counseling. The study addressed the effectiveness, acceptability, and cost-effectiveness of the intervention in both formats. The authors evaluated CHD risk reduction using each participant's Framingham Risk Score (FRS) at baseline and after 4 months and 12 months of follow-up.

The authors found a statistically significant and lasting reduction in CHD risk for participants in both study groups at 4 months and at 12 months. In both groups, all components of participants' FRS changed to indicate decreased CHD risk; most of these changes were statistically significant, and participants maintained the changes through follow-up at 12 months. The authors found similar risk reductions for participants' diet and physical activity changes, which were sustained over time. Finally, the authors observed substantial increases in medication adherence to reduce CHD risk.

Table. Change in FRS and Participants' Acceptance of Counselor and Web-Based Interventions

Intervention Format	Change in FRS		Recommend or Strongly Recommend
	Baseline to 4 Months	Baseline to 12 Months	
Counselor (n = 170)	-2.3%	-1.9%	166 (98%)
Web-based (n = 166)	-1.5%	-1.7%	161 (97%)

Overall, the combined lifestyle and medication intervention decreased participants' predicted 10-year CHD risk at 4 and 12 months of follow-up using either intervention format. Participants reduced their risk by adopting healthy lifestyle behaviors, improving medication adherence, or both, and they experienced improvements in blood pressure, cholesterol levels, smoking cessation, and aspirin use.

Study results showed that based on FRS change, the intervention was significantly more effective among younger participants than older participants. Findings indicated that the intervention was more effective among men, participants who did not have diabetes, and those who selected lifestyle

changes and medication counseling after 4 months of follow-up. From the payer perspective, the Web format was less expensive to deliver; 12-month costs were \$207 per person for the counselor format and \$110 per person for the Web-based format.

What are the applications for these findings?

This study's Web-based intervention was as effective as the counselor intervention in reducing participants' CHD risk after 12 months of follow-up. Participants' CHD risk decreased in both formats, but the Web-based intervention cost less to carry out. This finding suggests that Web-based interventions to reduce CHD risk could fill gaps in counselor availability and allow these individuals to focus attention on participants' harder-to-change behaviors. Populations with limited access to physical clinic locations also could benefit from Web-based interventions. Future research should evaluate similar interventions in a broad range of clinical settings, and the lifestyle component should be studied for possible use in health promotion settings outside the clinic.

Resources

Centers for Disease Control and Prevention
Division for Heart Disease and Stroke Prevention
www.cdc.gov/dhdsp

American Heart Association
What Is Heart Disease?
www.heart.org/HEARTORG/Conditions/Conditions_UCM_001087_SubHomePage.jsp

Citation

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The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.



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