



Review

Effectiveness of multifactorial interventions in primary health care settings for primary prevention of cardiovascular disease: A systematic review of systematic reviews [☆]



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ABSTRACT

Objective. To evaluate the effectiveness of multifactorial interventions carried out in the community setting to decrease cardiovascular risk in healthy patients.

Methods. Systematic review of the MEDLINE (via PubMed), Web of Science and Cochrane Library databases from January 1980 to January 2014. Identified for inclusion were systematic reviews of clinical trials that included multifactorial interventions carried out in primary care or community settings, targeting more than one cardiovascular risk factor, and implementing more than one type of intervention. The methodological quality of the included articles was evaluated using the AMSTAR tool.

Results. Eight systematic reviews were selected, including 219 studies. All of these reviews provided information about the effectiveness of multifactorial interventions in reducing mortality and morbidity due to cardiovascular diseases. Four reviews reported moderate effectiveness and four showed limited effectiveness.

Conclusion. Multifactorial community interventions improve cardiovascular risk factors and have a small but potentially important effect on mortality. These interventions seem to be more effective in the at-risk population and when they are carried out at a high level of intensity.

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Contents

Introduction	S69
Methods	S69
Eligibility criteria	S70
Information sources and search strategy	S70
Study selection	S70
Data collection process and data items	S70
Summary measures	S70
Results	S70
Study characteristics	S71
Risk factors	S72
Interventions characteristics	S72
Risk of bias within studies	S72
Outcome measures	S72

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Discussion	S73
Strengths and limitations	S73
Study implications	S74
Conclusions	S74
Conflicts of interest statement	S74
Acknowledgments	S74
Appendix A. Supplementary data	S74
References	S74

Introduction

Cardiovascular disease (CVD) is the leading global cause of death (World Health Organization, 2013) and represents a considerable cost burden for health care services (Leal et al., 2006; Lim et al., 2007). The incidence of CVD is largely explained by the association of risk factors such as smoking, obesity, high cholesterol and high blood pressure (Puska et al., 1976). Improvements in the risk factors associated with CVD through promotion of a healthy lifestyle are a logical way of preventing the development of CVD (Gordon et al., 2002; Graham et al., 2007).

Population-based strategies for CVD prevention should include community activities (Vartiainen et al., 1994) that modify individual lifestyles and behaviours (Sellers et al., 1997; Weinehall et al., 2001), counselling and motivational interventions (Graham et al., 2007). Dietary intervention, light-to-moderate exercise and smoking cessation are related to reduced values of CVD risk such as diastolic blood pressure, serum cholesterol and triglyceride levels in patients with diabetes type II (Diabetes Prevention Program Research Group, 2002), hypertension (Little et al., 2004) and coronary heart disease (Taylor et al., 2004),

and also are recommended as primary prevention of cardiovascular disease and stroke (Pearson et al., 2002).

Systematic reviews have examined the effectiveness of interventions simultaneously targeting multiple risk factors carried out in the community setting as a primary prevention strategy to reduce cardiovascular risk. However, the heterogeneity of the studies' designs, risk factors included and conclusions reached makes it difficult to determine the effectiveness of these interventions and how to apply these strategies. Therefore, the objective of this review is to summarise and critically evaluate the evidence provided by the systematic reviews, analysing the multifactorial interventions carried out in community settings as primary prevention strategy to reduce cardiovascular risk in CVD-free adults and display these as a comprehensive picture of the current evidence regarding this issue.

Methods

This systematic review was guided by the PRISMA Statement for Reporting Systematic Reviews and Meta-Analyses (Moher et al., 2010).

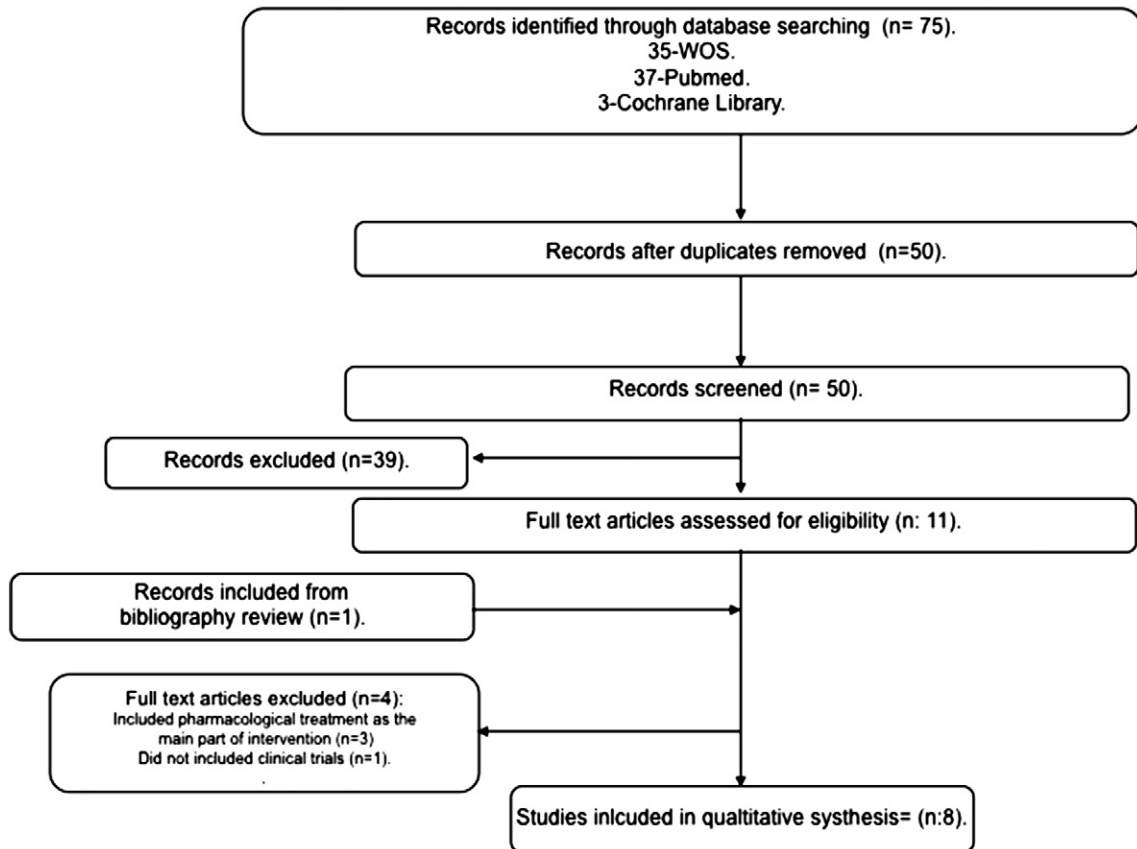


Fig. 1. Study flow diagram: search strategy.

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