

Interventions to promote physical activity in older with type 2 diabetes mellitus: a systematic review

Abstract

INTRODUCTION: Type 2 diabetes mellitus (T2DM) among people aged 60 years and above is a growing public health problem. Regular physical activity is one of the key elements in the management of T2DM. Recommendations suggest that older people with T2DM will benefit from regular physical activity for better disease control and delaying complications. Despite the known benefits, many remain sedentary. Hence, this review assessed interventions for promoting physical activity in persons aged 65 years and older with T2DM. **METHODS:** A literature search was conducted using Ovid MEDLINE, PubMed, EMBASE, SPORTDiscus, and CINAHL databases to retrieve articles published between January 2000 and December 2012. Randomized controlled trials and quasi-experimental designs comparing different strategies to increase physical activity level in persons aged 65 years and older with T2DM were included. The methodological quality of studies was assessed. **RESULTS:** Twenty-one eligible studies were reviewed, only six studies were rated as good quality and only one study specifically targeted persons aged 65 years and older. Personalized coaching, goal setting, peer support groups, use of technology, and physical activity monitors were proven to increase the level of physical activity. Incorporation of health behavior theories and follow-up supports also were successful strategies. However, the methodological quality and type of interventions promoting physical activity of the included studies in this review varied widely across the eligible studies. **CONCLUSION:** Strategies that increased level of physical activity in persons with T2DM are evident but most studies focused on middle-aged persons and there was a lack of well-designed trials. Hence, more studies of satisfactory methodological quality with interventions promoting physical activity in older people are required.

Keyword: Geriatric medicine; Health promotion; Older people; Physical activity; Type 2 diabetes mellitus