

Health-related quality of life and physical activity in persons at high risk for type 2 diabetes

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Abstract

Purpose. The aim of this study was to compare the health-related quality of life (HRQOL) of persons at risk for type 2 diabetes to that of the Finnish general population. In addition, the associations between physical activity and HRQOL at-risk persons were studied.

Methods. One hundred thirty-two at-risk persons were recruited from health care centres in Central Finland. Participants filled out questionnaires including demographic characteristics, HRQOL (SF-36), frequency of vigorous physical activity (≤ 2 times a week, once a week, less than once a week) and comorbidities.

Results. HRQOL of at-risk persons differed significantly from that of the Finnish population in four of the eight dimensions of SF-36. Compared with reference values of the general population, the values of at-risk persons were worse for general health and pain, but better for mental health and role limitation (emotional) dimensions. Among at-risk persons those physically more active had less depressiveness and lower body weight. HRQOL decreased linearly with decreasing physical activity in all dimensions.

Conclusions. People with elevated risk for type 2 DM have reduced HRQOL in general health and body pain dimensions, but mental health and emotional role dimensions were better compared with that of the population. Among at-risk persons, the benefits of physical activity on HRQOL were seen in all HRQOL dimensions. Regular exercise and body weight control may improve subjective health and reduce risk for type 2 DM and its consequences.

Keywords: Health-related quality of life, type II diabetes, physical activity, SF-36

Introduction

Type 2 diabetes is a metabolic disorder that is primarily characterised by insulin resistance, relative insulin deficiency and hyperglycemia. In 2003, the number of type 2 DM patients in Finland was 1,87,000. In addition it was estimated that the number of undiagnosed patients was 50,000–1,00,000. It is rapidly increasing and assuming lifestyle remains unchanged, it is estimated that their number will rise

up by 70% by the year 2010. Type 2 DM results from the interaction between genetic predisposition and behavioural and environmental risk factors [1]. Although the genetic basis of type 2 diabetes has yet to be identified, there is strong evidence that such modifiable risk factors as obesity and physical inactivity are the main general environmental determinants of the disease [2–4]. The more risk factors an individual has, the greater his/her likelihood of developing type 2 diabetes (see Appendix 1).

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