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THE 7-YEAR FOLLOW-UP OF THE BJÖRKNÄS LIFESTYLE INTERVENTION STUDY– A RANDOMIZED CONTROLLED TRIAL IN PRIMARY HEALTH CARE

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Objectives

Lifestyle intervention with increased physical activity and healthy diet reduces the risk of diabetes and improve cardiovascular risk factors. Large intensive multicenter trials have also shown positive persistent long-term effects, but such data from interventions in primary health care are rare. The Björknäs study has shown that lifestyle intervention in the primary care setting have positive 3-year effects on blood-pressure, anthropometry, fitness and quality of life by increase in physical activity and diet, and also that such intervention is cost saving.

Aim and methods:

In the extended follow-up of the Björknäs study we investigated in which extent the originally-achieved lifestyle changes and risk reduction remain 4 years after discontinuation of intervention. A total of 151 men and women, aged 18 to 66 years, at moderate to high risk of cardiovascular diseases, were randomly assigned either to a lifestyle intervention or control group. Lifestyle intervention consisted of supervised exercise sessions and diet counseling for 3 months, followed by regular group meetings over a 3-year period.

Results

At 7-year follow-up lifestyle intervention significantly reduced systolic blood-pressure ($p=0.007$), diastolic blood-pressure ($p<0.0001$), waist circumference ($p<0.0001$), waist-to-hip ratio ($p<0.0001$), and significantly increased total physical activity ($p=0.001$), exercise ($p=0.001$), maximum oxygen uptake (l/min $p=0.02$, $ml/kg*min$ $p=0.04$) and some dimensions of quality of life (EQ-VAS $p=0.015$, SF-36 social functioning ($p=0.05$). Closed to significant improvements were shown in BMI ($p=0.06$), weight ($p=0.07$), SF-36 physical functioning ($p=0.07$). No significant changes were shown in blood lipids or blood glucose.

Conclusion

Lifestyle intervention in primary care target to people at moderate to high risk of cardiovascular diseases resulted in sustained lifestyle changes resulting in favorable influences on cardiovascular risk factors, which remained 4 years after the intervention was stopped.