and gender difference in asthma.

Akademisk avhandling

som för avläggande av medicine doktorsexamen vid Sahlgrenska akademin, Göteborgs universitet kommer att offentligen försvaras i Hörsal Arvid Carlsson, Academicum, Medicinargatan 3, Göteborg, fredagen den 6 november 2009 kl 09.00.

av
Rosita Sundberg

Fakultetsopponent:
Doc Gunnar Bylin, Karolinska institutet, Solna

Avhandlingen baseras på följande delarbeten:

I Sundberg R, Tunsäter A, Palmqvist M, Ellbjär S, Löwhagen O, Torén K.
A randomized controlled study of a computerized limited education program among young adults with asthma
Respir Med 2005;99:321-328.

II Sundberg R, Palmqvist M, Tunsäter A, Torén K.
Health-realted quality of life in young adults with asthma
Respir Med. 2009;103:1580-1585

III Sundberg R, Torén K, Höglund D, Åberg N, Brisman J.
Nasal symptoms are associated with school performance in adolescents.
Journal of Adolescent Health 2007;40:581-583

IV Sundberg R, Torén K, Franklin KA, Gislasson T, Omenaas E, Svanes C, Janson C. Asthma in men and women: treatment adherence, anxiety and quality of sleep. Submitted

UNIVERSITY OF GOTHENBURG

Quality of life, school performance, treatment adherence and gender differences in asthma.

Rosita Sundberg RN, Dept of Internal Medicine/Respiratory Medicine and Allergology, Institute of Medicine, the Sahlgrenska Academy at Göteborgs University, Göteborg, Sweden.

Abstract

The aims of this thesis were to estimate the effectiveness of a computerized asthma education program designed to suit young people (I), to analyze whether quality of life changed over a five year period and whether young adults with asthma had impaired quality of life compared with a control group of the same age (II), to explore the association between current asthma, current rhinitis, current eczema and final grade for adolescents in comprehensive school (III), and to compare men and women with asthma with special emphasis on reported adherence, anxiety, and quality of sleep (IV).

A hundred adolescents (17-18 years) from an asthma outpatient clinic for young adults were randomly assigned to either active education (intervention group) or normal care (control group). The intervention group completed an interactive computer program of 30 minutes' duration providing information about asthma, mechanisms, trigger factors, allergies, and medication use, which was followed by a discussion with a specialized asthma nurse (I). A follow-up study was conducted among the cohort of young adults with asthma (n=64) and 248 general population controls, using a respiratory questionnaire and quality of life questionnaires (II). In the autumn of 2000, 10 837 schoolchildren aged 15 in Västra Götalandsregionen were investigated with a respiratory questionnaire (III). The second European Community Respiratory Health Survey (ECRHS II) was a follow-up study, performed between 1999 and 2002, among the participants in the second stage of ECRHS I. From among the ECRHS II participants living in the Nordic countries, 470 individual with current asthma were investigated with a structured clinical interview, including questions on the presence of respiratory symptoms and therapy. They were also asked to fill in the self-reported Hospital Anxiety Depression scale and the Basic Nordic Sleep Questionnaire (IV).

Limited asthma education had no effect on asthma symptoms, asthma knowledge, or quality of life parameters among young adults with asthma. The prevalence of respiratory symptoms decreased in both the intervention group, and in the control group, and quality of life and knowledge about asthma increased in both groups. However, the educational program did appear to be associated with a significant improvement in FEV_1. Young women with asthma seemed to have lower quality of life compared to young men with asthma, in spite of no difference in age of onset or severity of the disease. Adolescents with nasal symptoms severe enough to affect daily activity were at risk for low grades. Women with asthma had a more positive attitude towards their medication, had a higher reported adherence and used inhaled corticosteroids more often than men with asthma. At the same time women had more problems with anxiety and insomnia than men.

Computerized education program did not show an effect on asthma symptoms, asthma knowledge or quality of life in specialist care. Young women with asthma seemed to have lower quality of life compared with young men with asthma. Nasal symptoms severe enough to affect daily activity were associated with low grades. Women with asthma had a more positive attitude towards their medication, have a higher reported adherence, and use inhaled corticosteroids more often than men. At the same time women report more often anxiety and insomnia than men.

Key words: Asthma, quality of life, females, young adults, adolescents, patient education, allergy, school performance, asthma control, adherence, insomnia, anxiety, depression.