Function and the Development of Depressive Symptoms among Adults with Asthma

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Function, particularly performance of valued life activities (VLAs), is strongly associated with psychological status among individuals with arthritis. We examined the role of both general physical function and performance of VLAs in the onset of depressive symptoms (DEP_SX) among adults with asthma. VLAs are complex activities rated as important to individuals (e.g., caring for family members, hobbies, recreational and social activities).

Methods: We analyzed data from 2 waves of a study of adults with asthma surveyed by telephone (n=349). DEP_SX were defined as a CES-D score of ≥ 16. Two measures of physical function were examined: (1) Physical Component Scale (PCS) of the SF-12, an assessment of general physical function; and (2) number of VLAs (from 15) affected by asthma. Multiple logistic regression analyses were used, with the presence of DEP_SX at wave 2 as the dependent variable, wave 1 PCS and VLA scores as independent variables, and controlling for age, sex, race, income, smoking status, comorbid conditions, and severity of asthma score. Individuals with DEP_SX at wave 1 were excluded from analyses.

Results: In separate analyses, poorer function as measured by both wave 1 functional measures predicted the onset of DEP_SX at wave 2 (PCS OR=0.95 [95% CI .91, .98]; VLA OR=1.18 [1.08, 1.30]). When both functional measures were in the same regression model, however, only number of VLAs affected at wave 1 significantly predicted DEP_SX at wave 2 (OR=1.14 [1.03, 1.26]).

Conclusions: Although poorer general physical functioning plays an role in the development of DEP_SX, the impact of asthma on VLAs plays a much stronger role.

Depressive Symptoms and Health Care Utilization among Adults with Asthma

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Depression has been linked to greater health care use. We estimated the association between depressive symptoms (DEP_SX) and health care use among a group of adults with asthma.

Methods: We analyzed cross-sectional data from an ongoing study of adults with asthma surveyed by telephone (n=439). Depressive symptoms (DEP_SX) were defined as a CES-D score ≥ 16. Use of both traditional health care (# physician visits, treatment in an emergency room, any hospitalization) and alternative treatments (any herbal treatments, # treatments from alternative providers) for asthma over the past 12 months was assessed. Regression analyses were conducted to examine the relationship between DEP_SX and utilization using the following covariates: age, sex, race, education, marital status, comorbid conditions, smoking status, and severity of asthma score. Results: 29% (n=129) had CES-D scores indicative of possible DEP_SX. DEP_SX were associated with a greater number of asthma-related outpatient visits (p < .05), but no increase in the likelihood of emergency department treatment (OR=.97 [95% CI .48,1.99]) or hospitalization (1.91[.60, 6.13]) because of asthma. DEP_SX were also associated with a greater number of visits to alternative providers (p <.05) and a greater likelihood of using herbal treatments (2.29 [1.34, 3.92]) for asthma. Conclusions: DEP_SX were significantly associated with some types of health care utilization among adults with asthma. This association is noted for the types of utilization over which patients have discretion (outpatient physician visits, alternative treatment use), but not for hospitalization or emergency department treatment.

The Role of Psychosocial and Family Problems in Asthma Mortality

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Introduction Adjustment for psychosocial and family problems is common in epidemiological research. Recursive partitioning algorithms such as CHAID (CHi Square Automatic Interaction Detection) can be used to explore complex interactions between these factors, predictor and outcome variables. We investigated relationships between psychosocial problems, family problems and risk factors for asthma mortality.

Methods Asthma deaths were identified from the Victorian Registry of Deaths. Controls were patients presenting with asthma to hospital ERs. A validated questionnaire was used to collect data. CHAID was used to identify significant (p<0.05) interactions controlling for asthma severity. Data for 50 cases and 201 controls were analysed.

Results An increased risk for mortality was found for older individuals and females with family problems. Management variables that predicted mortality included action plans and lung function tests. Alcohol use increased risk of mortality only for individuals with verbal instructions or without a written plan. Individuals with severe asthma and who reported having lung function tests, were at increased risk for mortality if family or life problems were present.

Discussion This analysis highlights the degree of additional risk for death associated with psychosocial or family problems. It is important that these problems be identified and addressed, as even with best practice management, these problems place patients at high risk of death.

The Effects of Social Environment on the Behavior of Smoking and Cessation of Young Adults in Taiwan

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In Taiwan, adolescents smoking prevalence is about 12.6% in urban area and 7% in rural area. Smoking is a problem of the world, not only in Taiwan. It is important to find risk factors relating smoking behavior and quit smoking. This is a cross-sectional study. Overall 10,111 subjects had completed smoking related questionnaires. Questionnaires include some questions about smoking bebavior and attitude for smoking behavior etc. Stepwise multiple linear regression and stepwise logistic regression analysis were used to assess risk factors related to attitude, behavior of smoking and quit smoking. The smoking prevalence rate in our study group is 36%. There were 38% young adults within the group of smoking had ever quit smoking within one time before enter the army. The anti-s[...] classmates has negative effect on [...] of smoking by parents (OR=0.70[...] 95%CI=0.57,0.868) had a positi[...] the recruits to start smoking, [...] 95%CI=1.01,1.234). When tobac[...] cessation may occur (OR=1.67; 95%CI=1.35,2.04). We found that the more objections to smoking and admonition to quit smoking by parents and friends, the higher possibilities of quit smoking. These findings suggest that smoking cessation courses may help young adults to quit smoking and the family [...] be included in these courses.

Triggers Used by Asthma Patie[...]

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Reasons why asthma patients change their inhaled corticosteroid (ICS) are unclear. This study compared the importance patients attach to cues for altering their ICS in terms of Stated Importance (SI) and Behavioural Importance (BI). We identified through Content and Principal Component analysis of interviews with 50 patients, those triggers considered the most important when deciding to change ICS. Three cues were identified for increasing ICS; symptomatic deterioration, cold / flu and ineffective reliever. Four cues for decreasing ICS were; feeling asymptomatic, side effects, dependency on reliever, and concerns over long term use. These were combined in two separate sets hypothetical scenarios for increasing or decreasing ICS. 40 patients (mean age=45, mean PEF 402 l/min) judged the likelihood of increasing or decreasing ICS in response to these scenarios. For each cue BI was calculated using Judgement Analysis techniques. BI were compared with SI (assessed using a simple visual scale). Both were expressed on a scale: zero = no likelihood of altering ICS; 100 = maximum likelihood.

SI and BI of the cues for altering ICS		
Cues for increasing (I) or decreasing (D) steroid medication	SI	BI
Symptomatic deterioration (I)	53	42
Cold / flu (I)	14	36**
Ineffective reliever (I)	33	22
Feeling asymptomatic (D)	47	26*
Side effect (D)	11	22*
Dependency on reliever (D)	20	31*
Concerns over long term use (D)	22	20

(*=p<0.05,**=p<0.01)

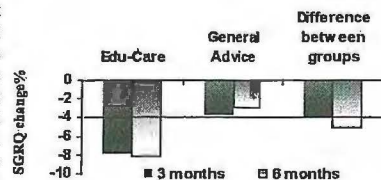Cues for increasing and decreasing ICS differ, and their level of importance varies depending on the method of assessment.

EduCare, an Educational Program for COPD, Reduces Exacerbations and Improves Quality of Life

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The Italian Pulmonologist Association developed an educational program to be added to the treatment for COPD (Monaldi 2002;57:25-29). 1030 patients were enrolled in a 6-month study and randomized into Educational or General Advice groups. Patients in the educational group participated in sessions on COPD, and received some telephone reinforcements. 3 and 6-month interim data are available for 750 patients. Baseline FEV1/FVC (41±24%), 6-min walk (354±156 m), smoking habit (21% smokers), PaO2 (71±13 mmHg), and QoL assessment (SGRQ, 45±17%) were not different between groups (p=NS). Conversely, over the 6 months of follow up, patients in the educational group showed fewer exacerbations than the control group (p=0.01). The improvement in QoL of the educational group was present at the third and sixth month (both p<0.0001), and was double the threshold of clinical significance (Figure). The improvement in the control group (p=0.003) did not reach the threshold for clinical significance. The difference in the improvement between groups was significant (p=0.0004), and reached

the minimal clinically important difference of the SGRQ, i.e. 4 units. We conclude that EduCare is effective in reducing the number of exacerbations and in determining a statistically and clinically important improvement in patients' QoL.

Abstracts

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