Subjective health and impaired quality of life due to allergies in a representative population survey

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Ergebnisse: 18.7 % der Patientinnen und Patienten, die im Jahr vor der Befragung unter einer Allergie litten, gab an, durch die Erkrankung "sehr beeinträchtigt" gewesen zu sein, 30.0 % fühlten sich "ziemlich beeinträchtigt", 42.4 % "etwas beeinträchtigt" und 8.9 % "gar nicht beeinträchtigt". Frauen fühlten sich durch die Allergie öfter "sehr beeinträchtigt" als Männer (21.8 % vs. 15.2 %, p < 0.05). Auf einer Skala von 0 bis 100 (0 = denkbar schlechtester; 100 = denkbar bester Gesundheitszustand) bewerteten Patientinnen und Patienten mit Allergien im Vergleich zu Personen ohne Allergien ihre Gesundheit deutlich als schlechter (71.7 vs. 74.1 Punkte, p < 0.001). Von den verschiedenen Allergiediagnosen war die Lebensqualität bei Patientinnen und Patienten mit Asthma bronchiale und mit allergischem Darmleiden am meisten beeinträchtigt. Bei diesen beiden Erkrankungen waren auch die körperliche Leistungsfähigkeit und die Fitness, alles zu tun was man gerne tun möchte, signifikant reduziert im Vergleich mit Personen ohne Allergien.


Schlüsselwörter: Gesundheitswahrnehmung, Asthma bronchiale, allergische Rhinitis, Allergisches Darmleiden, Urtikaria.

Summary. Objectives: To examine the quality of life among patients with different allergic diseases and to assess the health perception of patients with allergies compared to patients without allergies.

Methods: The source of data was the Vienna Health and Social Survey, a representative cross-sectional survey, commissioned by the City of Vienna.

Results: 18.7% of those suffering from allergies in the year before questioning reported that they had felt “very impaired”, 30.0% felt “quite impaired”, 42.4% “a little impaired” and 8.9% “not impaired at all”. Women felt “very impaired” as a consequence of allergy more often than men (21.8% vs. 15.2%, p < 0.05). On a scale of 0 to 100 (0 = worst possible; 100 = best possible state of health) patients with allergies rated their state of health as distinctly worse than those people without allergies (71.7 vs. 74.1 points, p < 0.001). Of the various allergic illnesses patients suffering from asthma or allergy-related intestinal problems experienced the greatest impairment in quality of life. For these two diseases physical ability and feeling fit enough to do what one would like to do was also significantly reduced, when compared with subjects without allergies.

Conclusion: Compared to people without allergies, patients with allergies have a significantly more impaired quality of life. It is important to take this into account when deciding upon a treatment regime.
**Key words:** Health perception, asthma, allergic rhinitis, allergic bowel disease, urticaria.

**Introduction**

Improving the quality of life of the patient is central in the treatment and management of allergic diseases. The guidelines of the American joint task force on practice parameters in allergy, asthma and immunology recommend an evaluation of the impact of symptoms of allergic rhinitis on quality of life. Here, the subjective well being of a patient is described as the cornerstone in the evaluation of the effectiveness of different therapies [1]. The ENT section of the guidelines of the German Association for Anaesthesiology and Intensive Care Medicine (Deutsche Gesellschaft für Anästhesie und Intensivmedizin) also recommends that doctors document the influence of allergic rhinitis on the quality of a patient’s life [2, 3].

The extent to which quality of life is impaired as a result of various diseases such as allergic rhinitis [4, 5], allergic skin diseases [6–9], food allergies [10] as well as asthma [11, 12] has been investigated. For asthma, it has been shown that quality of life is associated with symptom frequency and restrictions in lung function [13].

Seasonal allergic rhinitis can on the one hand lead to diminished physical performance and vitality, as well as, sleep disturbances [14] and on the other hand to increased sleepiness during the day [15]. Sexual function is also significantly impaired during the pollen season in both men and women with seasonal allergic rhinitis [16]. Asthmatics suffer from impaired quality of life through asthma-related symptoms as well as snoring and apnea [17].

Food related allergies, in particular, influence the quality of life in children in a variety of ways. In these young patients the special aspects of food preparation play a big role, family and social activities are restricted and attendance at school can be negatively affected. Parents of children with food allergies generally feel more stressed. Children with food allergies who suffered from asthma or atopic dermatitis experienced no additional effect on their quality of life [10].

Most studies, examining quality of life of patients with allergic diseases, only investigate at the effects of one specific allergy. Thus, direct comparison between the individual allergic diseases is not possible.

**Methods**

The Vienna Health and Social Survey (Wiener Gesundheits- und Sozialsurvey) served as the source of data for the evaluation of quality of life of patients with allergic diseases. This survey is a representative cross-sectional investigation study, commissioned by the City of Vienna and carried out in cooperation with the Institute for Advanced Studies (Institut für Höhere Studien). The survey was performed during the winter months of 1999 to 2001 on Viennese inhabitants aged 16 and over. People were selected by means of a simple random sample, using registration districts, and a face-to-face interview carried out by trained questioners with each person chosen. Individuals were asked a series of 135 questions relating to their health, which were compiled in a structured 48 page questionnaire. By this means information was gathered in the following areas: subjective health, acute and chronic illnesses, medication being taken, and the utilisation of medical services. In addition, they were asked about areas of life potentially having an impact on health, such as, lifestyle, socio-economic status, working life, stresses and strains, living situation, social network, subjective coping strategies, and exceptional life events. At the start the net sample comprised 7,300 respondents, of which 4,019 interviews could be used for the evaluation. Thus the response rate was 55% [18].

In terms of allergies, participants were specifically asked about six different allergic diseases, as well as, “other allergies” over the past year. Patients with allergies were also asked to rate, on a scale of 1 to 4, to what extent they were impaired by their illness, with 1 denoting “very impaired”, 2 “quite impaired”, 3 “a little impaired”, and 4 being “not impaired at all”.

All participants in the Viennese Health and Social Survey were asked to rate their own health on a scale of 0 to 100, whereby 0 represented the worst possible state of health and 100 the best. To aid visualisation, study participants were shown a scale similar to a thermometer and told to use a ball point pen as a pointer to mark their subjective health on the scale. For the purpose of our assessment we compared the subjective health ratings of people with allergies with ratings given by those without allergies.

Furthermore, people taking part in the survey were asked to rate their physical ability as “very good”, “good”, “average”, “bad”, or “very bad”. Finally probands were asked to state whether they “always”, “frequently”, “sometimes”, “seldom” or “never” felt fit enough to do what they wanted to do. Here again, we compared the responses of people with allergies to those given by people without allergies.

The results of the questionnaire were analysed using the computer based program SPSS 11.5. Descriptive statistical methods were applied. The T-Test was used to compare means, and the Mann-Whitney-U-Test to compare ordinal numbers. A level of p < 0.05 was considered as significant.

**Results**

The key characteristics of the study population are shown in Table 1. 843 (21.0%) people reported having suffered from an allergic disease over the past year. 9.8% stated that they had been affected by allergic rhinitis at certain times of the year, and 3.9% by allergic rhinitis independent of season. 0.7% reported urticaria and 4.4% allergic skin rashes. By their own accounts 2.4% of subjects had suffered from asthma, 0.7% from allergy-related intesti-