

Evaluation of the quality of life of asthma patients with the SF-36 questionnaire



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Introduction

Asthma is a common disease affecting around 300 million people worldwide. It is described as chronic hyperresponsiveness with inflammation of the airway mainly involving mast cells, eosinophils, and T lymphocytes. Asthma is the most common chronic disease in children affecting around 6 million children in the US aged from 0 to 17 years. Asthma patients usually present with reversible symptoms such as wheezing, shortness of breath, and cough.

Asthma is a chronic disease that can directly affect the daily life of the patient. The severity of asthma determines the restrictions on the patient's daily life. The importance of restrictions on daily life may be more significant in severe conditions or when symptoms are not fully controlled. General health questionnaires such as Short Form Health Survey (SF-36) can be used to provide a general idea about the severity of asthma or the scale of restriction on the patient's daily life. However, general health questionnaires cannot be relied on as much as disease-specific questionnaires because they might not be as responsive in clinical trials. Some studies demonstrated that SF-36 questionnaire is more reliable than similar instruments. For example, Van der Molen et al. provided evidence that the SF-36 scale represented asthma patients more accurately than the Psychological General Well Being Index. Although it is a known and widely used scale in general health surveys to measure the health status of a patient, it has not been used enough in asthmatics.

Even though the number of studies on the quality of life of asthmatics using different types of questionnaires has been increasing in recent years, it is still not studied enough using the SF-36 questionnaire. In this study, we aim to analyse the quality of life of asthma patients using the SF-36 questionnaire and to show if there is a correlation between the severity of asthma and the SF-36 scale.

Methods

Our study included two groups consisting of a control group and asthma patients group. The subjects were aged above 18 years old and they applied to Bezmialem Vakif University Hospital respiratory diseases polyclinic. The subjects also completed a written informed consent form and they were diagnosed with asthma according to GINA criteria. Power analysis was performed by the statistics department for the study. At a 95% confidence level, 80% power and importance attributed to the mean difference of 14 units between the groups, the study requires a minimum of 34 patients in each group. The patients presented with daily asthmatic symptoms and had no other respiratory diseases such as cystic fibrosis or influenza-like or respiratory infection symptoms

The SF-36 is a self-assessment scale consisting of 8 sub-headings including Physical Functions, Physical Role Restriction, Pain, General Health, energy, Social Functions, Emotional Role Restriction, mental health and it consists of 36 questions in total. The patient's health status is evaluated by obtaining separate scores for each subheading. Sub scale scores range from 0 to 100 and a high score is an indicator of good health.

SF-36 questionnaire was applied to the patients to obtain information about their quality of life. The SF-36 questionnaire (Medical Outcomes Survey Short Form-36) was translated to Turkish by Fidan et al and was filled out by the patients before the examination.

Results

35 patients and 34 people participated in the survey. We compared the quality of living of asthma patients to healthy people. There was a significant difference in terms of physical role difficulties, physical condition, mental health, general health perception and social functioning ($p < 0.001$) where asthma patients were in worse state compared to healthy people. On the contrary, there was no significant difference between patients and healthy people in terms of pain perception ($P = 0.899$), emotional role difficulty ($P = 0.172$) and energy ($P = 0.723$).

Conclusion

Asthma affects the patient's life quality negatively. An apparent relationship between Asthma and the SF-36 questionnaire has been observed.

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