Original Paper

Quality of life in asthmatic children before and after using peak-flow meter device

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Abstract

Background and Objective: Asthma is the most prevalent chronic disease during childhood and it is estimated that 4.8 million children involved in asthma all over the world and its prevalence and incidence is increasing. The aim of this study was to identify the peak-flow meter application on quality of life in asthmatic children.

Materials and Methods: This clinical trial study was done on 80 asthmatic children between 7 to 15 years old which referred to Shahid Beheshti hospital clinic in Kashan, Iran during 2009. Susan Sylvia questionnaire included 3 parts, was filled for every child. The questions in any section had three options in which there were 5 items in activity limitation, 13 questions in symptoms and 6 questions in emotional functions. Every question had 1 to 3 points and whole questionnaire taken 23 to 69 points. The children were learnt to measure their PEFR (Peak Expiratory Flow Rate) 3 times a day using Peak flow meter device and upon the results, the management procedure was changed. After 3 months the outcome were evaluated and data analyzed by SPSS-15 and paired t-test.

Results: Mean age of patients was 8.82±2.75 years old. Thirty three subjects (41.3%) were girl. The average score in emotional functions was 13.1±3.07 before and 14.35±3.7 after using peak-flow meter ($P<0.05$). The average score in activity limitation was 7.33±1.57 and 8.47±0.67 before and after using peak-flow meter, respectively ($P<0.05$). The average score in symptoms before and after pek-flow meter was 28.81±5.13 and 32.02±5.62, respectively ($P<0.05$). Finally total score of quality of life showed significant increase in children after using peak-flow meter ($P<0.05$).

Conclusion: This study showed that the application of pek-flow meter increase emotional functions, decrease limitation of activity and symptoms in asthmatic children. Therefore, it is suggested pek-flow meter dievice taking into account in asthma management of asthmatic patients particularly in children.

Keywords: Quality of life, Children, Asthma, Peak-flow meter, Clinical Trial

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