The effect of education and follow-up using peak flow meter based on asthma action plan on asthma control

M.Sc. Thesis
(Medical- Surgical Nursing)

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Abstract

**Title:** The effect of education and follow-up using peak flow meter based on asthma action plan on asthma control.

**Background:** Asthma is one of the most prevalent chronic diseases in worldwide. About ⁴·⁵ million people suffer from asthma in Iran. Effective asthma control is dependent on education. Self management is very important in the standard educational program. The aim of this study was to investigate the effect of education on using peak flow meter based on asthma action plan on asthma control.

**Material and Method:** The study is a quasi-experimental controlled clinical trail. The samples (n=⁹₈) were selected from the pulmonary clinic in Tehran, Iran. The patients were randomly assigned into the experimental (n=⁴⁷) and the control (n=⁴¹) groups. The experimental group received two educational sessions that including asthma, peak flow meter and asthma action plan. The patients in the experimental group have sent SMS about peak flow rate to the researcher in a period of ⁵⁻¹ weeks. Also, the researcher provide feedback to the patients about their asthma control weekly. People in the Control group did not receive education. In both groups, asthma control test and asthma attack form were obtained before and after study (³) months in two groups. Independent t-test, chi-square, mann-whitney, Kolmogorov-Smirnov and McNemar were used to compare the groups.

**Result:** there was a significant difference in ACT scores (p=····) and asthma attacks score (p=····) between two groups.

**Conclusion:** the education and follow-up using peak flow meter base on action plan has beneficial effect on asthma control and attacks.

**Key words:** education, self management, peak flow meter, asthma action plan, asthma