Evaluation on Educational Program on Air Quality Health Index (AQHI) on Chronic Obstructive Pulmonary Disease (COPD) Patients in Nurse and Allied Health Clinic (NAHC)- Respiratory in Kowloon Central Cluster (KCC)

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Introduction
The Air Quality Health Index (AQHI) was introduced by the Environmental Protection Department (EPD) in Hong Kong in 2013. An educational program was developed to facilitate COPD patients in adopting AQHI into daily living.

Objectives
To evaluate the efficacy of the program.

Methodology
A pilot cross-sectional survey was conducted in NAHC- Respiratory, KCC from late September to Mid-October, 2014. Patients with spirometry results with forced expiratory volume in 1 second (FEV1)/forced vital capacity (FVC) < 70% or known COPD were recruited. Self-administered questionnaire and self-reported self-confidence level in applying AQHI into daily living was obtained before and after the program. McNemar’s test and paired t-test was used to analyze the data.

Result
38 patients were recruited. Patients were more likely to know what was not an air pollutant after the program (92.1%) than before (71.1%), (p=0.021). Patients were more likely to know which website provides the information of AQHI after the program (78.9%) than before (15.8%), (p=0.000). Patients were more likely to know AQHI was introduced in which year after the program (89.5%) than before (5.3%), (p=0.000). Patients were more likely to know what precautionary measure should be taken when...
the health risk was “moderate” and respiratory symptoms were present after the program (71.1%) than before (21.1%), (p=0.000). Patients were more likely to know the number of health risk categories in AQHI after the program (78.9%) than before (2.6%), (p=0.000). Patients were more likely to know AQHI “6” was under which health risk category after the program (71.1%) than before (28.9%), (p=0.000). Patients were more likely to know what precautionary measure should be taken when the AQHI is “5” health and respiratory symptoms are absent after the program (50%) than before (26.3%), (p=0.035). Patients were more likely to know what kind of activity should be reduced when AQHI is “7” after the program (73.3%) than before (52.6%), (p=0.039). The level of confidence in applying AQHI into daily living had increased significantly (p=0.000) from mean score 3.68 + to 7.42 after the program The educational program had shown to be beneficial in improving the knowledge of AQHI and self-efficacy of applying AQHI.