## Factors Predicting Symptom Cluster Functional Status and Quality of Life of Chronic Obstructive Pulmonary Disease Patients

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Abstract: The purposes of this study were to study symptom cluster, functional status and quality of life of patients with chronic obstructive pulmonary disease (COPD), and to examine factors related to and predicting symptom cluster, functional status and quality of life of COPD patients. The sample was 180 COPD patients multi-stage random sampling from 4 hospitals in the eastern region, Thailand. The research instruments were 8 questionnaires and recorded forms measuring personal and illness data, co-morbidity, physical and psychological symptom, health status perception, social support, and regimen adherence, functional status and quality of life. Spearman rank and Pearson correlation coefficient, exploratory factors analysis and standard multiple regression were used to analyzed data. The findings revealed that two symptom clusters were generated: physical symptom cluster including dyspnea, fatigue and insomnia; and, psychological symptom cluster including anxiety and depression. Scores of physical symptom cluster was at moderate level while that of psychological symptom cluster was at low level. Scores on functional status, social support and overall regimen adherence were at good level whereas scores on quality of life and health status perception were at moderate level. Disease severity was positively related to physical symptom cluster, psychological symptom cluster and quality of life, and was negatively related to functional status at a moderate level (rs = .512, .509, .588 and -.611, respectively). Co-morbidity was positively related to physical symptom cluster and psychological symptom cluster at a low level (r = .179 and .176, respectively). Regimen adherence was negatively related to quality of life and psychological symptom cluster at a low level (r=-.277 and -.309, respectively), and was positively related to functional status at a moderate level (r=.331). Health status perception was negatively related to physical symptom cluster, psychological symptom cluster and quality of life at a moderate to high level (r = -.567, -.640 and -.721, respectively) and was positively related to functional status at a high level (r = .732). Social support was positively related to functional status (r=.235) and was negatively related to quality of life at a low level (r=-.178). Physical symptom cluster was negatively related to functional status (r= -.490) and was positively related to quality of life at a moderate level (r=.566). Psychological symptom cluster was negatively related to functional status and was positively related to quality of life at a moderate level (r= -.566 and .559, respectively). Disease severity, co-morbidity and health status perception could predict 40.2% of the variance of physical symptom cluster. Disease severity, co-morbidity, regimen adherence and health status perception could predict 49.8% of the variance of psychological symptom cluster. Co-morbidity, regimen adherence and health status perception could predict 65.0% of the variance of functional status. Disease severity, health status perception and physical symptom cluster could predict 60.0% of the variance of quality of life in COPD patients. The results of this study can be used for enhancing quality of life of COPD patients.

Keywords: chronic obstructive pulmonary disease, functional status, quality of life, symptom cluster

Conference Title: ICNM 2015: International Conference on Nursing Management

Conference Location: London, United Kingdom

Conference Dates: May 25-26, 2015