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## CHRONIC OBSTRUCTIVE PULMONARY DISEASE

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**Self-management behaviors in patients with chronic obstructive pulmonary disease: The role of physical limitation**Doris Y P Leung<sup>1</sup>, Ching Ching Li<sup>2</sup> and Diana T F Lee<sup>1</sup><sup>1</sup>The Chinese University of Hong Kong, Hong Kong<sup>2</sup>Caritas Institute of Higher Education, Hong Kong

**Background:** Self-management has been used for decades as a means to tackle the challenges of chronic obstructive pulmonary disease (COPD). A recent systematic review concluded that interventions promoting self-management among COPD patients were effective in improving patients' health outcomes, yet the most effective component of these interventions remains elusive. A better understanding of the underlying phenomenon of how COPD patients engage in self-management behaviors is urgently needed. The purpose of this study is to test the goodness-of-fit of an evidence-based theoretical model to explain the factors that affect self-management behaviors in COPD patients.

**Methods:** A cross-sectional study employing a convenience sampling was conducted. Adult COPD patients were recruited when they had their follow-up visits in six clinics. Structural equation modeling was used to test the goodness-of-fit of the hypothesized model utilizing the EQS software. Model modifications were made based on theoretical plausibility and statistical significance.

**Results:** The findings revealed that ten factors exerted significant total effects on self-management behaviors: Eight of them had positive effects while two had negative effects. Among these significant factors, physical limitation had the greatest positive total effect on self-management behaviors, but the direction of the effect was contradicted to expectation. A further analysis on the relationships of self-management behaviors with functional limitations, dyspnea and fatigue suggested inverted U-shape non-linear relationships.

**Conclusion:** This newly developed evidence-based theoretical model provides insight into the understanding of the complex phenomenon of COPD patients' engagement in self-management behaviors which could be used to guide the development of interventions to promote self-management behaviors in COPD patients.

**Recommendations:** Future study could replicate the current study and cross-validate the evidence-based theoretical model using a larger population of COPD patients with different ethnic origins, in particular, the non-linear relationship with severity of the disease.

**Biography**

Doris Y P Leung is currently working as an Assistant Professor at the Nethersole School of Nursing, The Chinese University of Hong Kong. She got her BSc and MPhil in Statistics at The Chinese University of Hong Kong and PhD in Biostatistics at University of California, Los Angeles. Her main interests include Educational and Health Psychology and Scale Validation. She has co-authored more than 120 papers/abstracts published in peer-reviewed journals and generated over 150 conference abstracts. She also served in Editorial Board and invited reviewers for several international journals. Her current research programs include cancer prevention, chronic disease management, palliative care and teaching and learning in higher education.

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