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Telehomecare Technologies Enhance Self-management and Empowerment among Patients with Chronic Obstructive Pulmonary Disease (COPD) – Where does *Health Literacy* Fit into this Equation?

Lisa Korsbakke Emtekær Hæsum^a, Lars Ehlers^b, Ole K Hejlesen^{a,c,d}

^a Department of Health Science and Technology, Faculty of Medicine, Aalborg University, Denmark ^b Centre of Improvement in Health Care, Faculty of Social Sciences and Faculty of Medicine, Aalborg University, Denmark ^{ce} Department of Health and Nursing Science, University of Agder, Kristiansand, Norway ^d Department of Computer Science, University of Tromsø, Tromsø, Norway

Abstract and Objective

Chronic obstructive pulmonary disease (COPD) is a chronic disease characterised by a graduate decline of pulmonary function and it constitutes a provable burden on society. Telehomecare technology (THC) is a young field of research that has shown potential with regards to enhancing the level of selfmanagement among COPD patients. Self-management is closely connected to health literacy. Health literacy and THC have shown great potential in terms of reducing healthcare costs and improving quality of life for COPD patients. The objective of this poster is to raise awareness regarding the potential of using THC to improve the level of health literacy.

Keywords: Health literacy, self-management, education, patient-centered care, COPD, quality of life.

Methods

A literature search in Pubmed and Cochrane (only reviews) centred around **three fields** was conducted:

- 1. COPD and self-management (health literacy): Pubmed: 82, selected 6; Cochrane: 15, selected 1; Other: 5.
- **2.** *THC and self-management*: Pubmed: 16, selected 5; Cochrane 1, selected 0.
- **3.** *THC and health outcomes*: Pubmed: 6, selected 4; Cochrane 3, selected 0; Other: 4.

Results

 COPD and self-management (health literacy): Selfmanagement is considered important in the management of COPD in various clinical guidelines. Both the World Health Organisation (WHO) and the Global Initiative for Chronic Obstructive Lung Disease (GOLD) emphasise patient education, with the purpose of enhancing self-management, as an essential part of their global strategy for the diagnosis, management and prevention of COPD (1) (2).

The Danish National Board of Health also recommends self-management with regards to early detection, treatment and rehabilitation of COPD (3). A low level of health literacy is associated with poorer health outcomes (4).

 THC and self-management: One of the main functions of THC is to provide education to the patients, and thereby enhancing their level of self-management (5). The direct involvement of COPD patients in their own care improves the knowledge about their disease and contributes to the feeling of empowerment (6).

 THC and health outcomes: THC have been shown to reduce healthcare costs and either improve or not affect quality of life among COPD patients (7).

Conclusion

Self-management is recognised as a key component in the management of COPD. There is a strong association between THC and an enhanced level of self-management among COPD patients. THC has been shown to reduce healthcare costs. A poor level of health literacy leads to poor health outcomes. Hence, if THC is used to improve the level of health literacy among COPD patients it could increase their quality of life and reduce healthcare costs for society. **Implications for future research:** The correlation between health literacy and THC cause for further investigation as it could comprise an important key point in solving the puzzle of managing COPD in a less costly and patient satisfactory way.

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