PS2.056

Smartphone interventions for chronic obstructive pulmonary disease: a systematic review of the evidence

Sara Dinis(1), M Ferro(2), D Neves(3), V Esteves(4)
(1) USF Trevim-Sol, ACES Pinhal Interior Norte, Lousã, Portugal
(2) UCSP Montemor-O-Velho, ACES Baixo Mondego, Montemor-O-Velho, Portugal
(3) UCSP Sete Rios, ACES Lisboa Norte, Lisboa, Portugal
(4) USF Buarcos, ACES Baixo Mondego, Figueira-da-Foz, Portugal

Corresponding author: Dr Sara Dinis, USF Trevim-Sol, Largo Social Nº12, Calvão, Portugal. E-mail: sara.t.dinis@gmail.com

Background & Aim: People with chronic obstructive pulmonary disease (COPD) need support strategies to help them monitor their illness and participate in their own health management. Therefore, smartphones and health-related applications can play an important role as monitors with attached sensors, reliable information providers, and 24 hour enabled communication channels. The aim of this review was to determine the current state of research of smartphone use in COPD.
Method: The research on PubMed® was performed on December 2015, using the terms [internet, phone, smartphone, mhealth, social media, text messages, apps] combined with [chronic obstructive pulmonary disease]. Studies were included if they described a smartphone intervention targeted adults diagnosed with COPD, focused on self-management, frequency of exacerbations and lifestyle modification, in the last 5 years.
Results: of the 488 papers identified, 2 met inclusion criteria, both being randomized controlled trials. The first study demonstrated an increase in the daily activity level of COPD patients after a 4 week period using a smartphone application providing motivational cues for exercise. The second study demonstrated greater improvement in self-efficacy for managing dyspnea and greater perceived levels of support at an exercise program by the intervention group, wearing a smartphone and web diary for self-management of COPD during 12 months; there were no differences in dyspnea with activities, exercise behaviour, performance and health-related quality of life across groups in this study.
Conclusions: Smartphone strategies can provide a viable option for facilitating chronic obstructive pulmonary disease self-management. Further research is needed to develop more precise and complete applications aiming this chronic disease.