

Video-based teach-to-goal intervention on inhaler technique on adults with asthma and COPD: a randomized controlled trial

Mohammad Al-Kharouf¹, Mariam Abdeljalil¹, Nathir Obeidat², Khaled Al Oweidat², Oriana Awwad^{1*}

¹ Department of Biopharmaceutics and Clinical Pharmacy, School of Pharmacy, the University of Jordan, Amman, Jordan.

² Department of Internal Medicine, Faculty of Medicine, University of Jordan, Respiratory and sleep Medicine, Jordan University Hospital, Amman, Jordan.

DOI: <https://doi.org/10.35516/jjps.v16i2.1538>

ABSTRACT

The incorrect use of inhalers is highly associated with poor patient outcomes. This randomized controlled trial investigated the impact of a novel video-based teach-to-goal (TTG) intervention on the following outcomes; mastery of inhaler technique, disease control, medication adherence, and disease-related QoL over time among patients with asthma and COPD.

After baseline assessment, participants received either a verbal (control group) or a video-based (intervention group) TTG strategy and were assessed after three months for the impact of the intervention on the intended outcomes. At baseline, intervention (n=51) and control (n=52) groups had comparable characteristics. At follow-up, inhaler technique and medication adherence improved among the intervention group compared to control group ((93.4% vs 67%) and (88.2% to 61.5%), respectively ($p<0.05$)) as well as to baseline ((93.4% to 49.5%) and (88.2% to 66.7%), respectively ($p<0.05$)). Similarly, disease control was also ameliorated among the intervention group compared to baseline (35.3% to 54.9%) ($p<0.05$). QoL scores improved significantly among asthma patients (intervention group) at follow-up in comparison to baseline. Better scores were also observed for COPD patients compared to controls, ($p<0.05$).

Interventions using video-based TTG education are effective in enhancing and retaining the inhaler technique over time, with a positive impact on disease outcomes among patients with asthma and COPD.

Keywords: Asthma, Chronic Obstructive Pulmonary Disease, Patient Education, Teach-To-Goal Education, Video-Based, Randomized Controlled Trial.