Impact of an Inhaler Technique Vide-Education Tool on Pediatric Asthma: Abstract

Kinjal Bhatt

Doctorate of Nursing Practice Scholarly Project Paper

The Johns Hopkins University School of Nursing

On my honor I pledge that I have neither given nor received any unauthorized assistance on this assignment. – Kinjal Bhatt, 26 April 2020

Abstract

Objective: To evaluate if an educational video can improve demonstrated inhaler technique performed by pediatric patients (age 4 to 19 years) or caregivers admitted to a general pediatric unit for an asthma exacerbation and reduce rates of asthma-related readmission 30-days after discharge.

Methods: Patients admitted to the unit for asthma exacerbation were required to watch a video that demonstrated correct metered dose inhaler technique based on a corresponding checklist. Two video options from the Children's Hospital of Atlanta were offered for viewing. One video demonstrated inhaler used with spacer and one demonstrated inhaler used with spacer and mask. Patients' inhaler technique was assessed on the checklist pre- and post-intervention. 30-days post-discharge, patients received a telephone call inquiring if they required readmission.

Results: Individuals using an inhaler with spacer and inhaler with spacer and mask demonstrated significantly improved inhaler technique. All individuals eligible to receive the intervention viewed the educational video and completed the follow-up telephone call. No patients required readmission within 30-days of discharge from the hospital.

Conclusion: An educational video can improve inhaler technique and should be implemented as the unit's new standard of care for educating pediatric patients and their caregivers on correct inhaler technique prior to discharge. Additionally, educational videos are feasible to implement in the in-patient setting. Finally, improved inhaler technique may contribute to low hospital readmission rates for pediatric patients with asthma.

Key Words: Pediatric, Asthma, Inhaler, Technique, Metered Dose Inhaler, Video, Education