

Readmission Rate Reductions via Quality Improvement for Chronic Obstructive Pulmonary Disease (COPD) Patients

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Abstract

This study inferred that when pharmacists lead patients in self-management via the advance preparation of written action plans, there is likely to be a significant reduction in the rate of readmission. Also, the action plans were found to reflect pharmacists' crucial role of improving health care service quality or steering patient satisfaction via the avoidance of adverse or sentinel events, besides addressing possible morbidities that could arise from inadequate advance planning at the unit or department level. In future, the study recommends the need for Mercy Medical Center and other healthcare organizations to facilitate pharmacists in a manner that would enable them to lead COPD patients in self-management via the preparation of written action plans.

Introduction

Chronic Obstructive Pulmonary Disease (COPD) continues to take a toll on the world's health care system and forms the third-largest killer (Sohanpal, Epiphanou & Taylor, 2014). According to Benzo *et al.* (2016), self-management targeting chronic conditions (such as COPD) via written action plans is advantageous because it provides room for patients and their families to deal with symptoms via an adjustment to social and psychological demands. In concurrence, Benzo, Kirsch, Dulohery and Abascal-Bolado (2016) documented that self-management is worth applying to COPD patients because it fosters the maintenance of proper levels of exercise, diet, and nutrition, management of complex medication regimes, and the monitoring of physical indicators. Apart from the factors discussed above, self-management has been designed as the best practice for addressing readmission rates among adult COPD patients at Mercy Medical Center because the condition, similar to the majority of chronic conditions, is associated with a community, population, family, and individual's lifestyle (Benzo, Kirsch, Dulohery & Abascal-Bolado, 2016). As such, the need to embrace a self-management approach targeting the patients' lifestyles accounts for the choice of this best practice. As concurred by Bryant, McDonald and Boyes *et al.* (2013), self-management is effective in addressing COPD exacerbations and readmission rates because it improves clinician-patient relationships and leads to the utilization of practice care teams. Notably, the latter observation holds that through self-management, the lifestyle-related chronic conditions such as COPD are likely to be monitored because the best practice allows for the gathering of patient experience and clinical data before visits and set agendas for the visits. Furthermore, self-management is worth implementing for COPD patients because it enables the patients to set health goals and develop action plans – while allowing the practice care teams to track health outcomes. Thus, the selection of self-management as a use case and best practice for implementation arises from the perceived need to reap from the above-mentioned positive healthcare effects associated with the practice.

Methods

At Mercy Medical Hospital, the designed care bundle that comes in the form of self-management is expected to be launched on the institution's respiratory ward; implying that the method of instruction is ward based. Hence, the intervention targets patients in the respiratory ward (and their families). The launching is also expected to exploit a series of multidisciplinary meetings. Additionally, the launch will aim to foster staff education, a step that is informed by the literature discussed earlier regarding the alarming readmission rates of COPD adult patients at the institution; with the trend linked to low-level confidence regarding pulmonary rehabilitation, smoking cessation, and the inhaler technique. Imperative to highlight is that some of the previous studies and interventions point out the aspect of the difficulty of staff members to attend teaching sessions as a barrier to the effectiveness of the self-management program seeking to sensitize COPD patients in respiratory wards about the self-monitoring of symptoms and self-administering of prescribed drugs. In this case, the design of the educational model aimed at educating patients, families, and even unit members of staff on the self-monitoring of symptoms and self-administering of drugs requires the team members to spend time on the wards at the stands supporting teaching about topics concerned with inhaler techniques and smoking cessation. As such, the course of the respective shifts will witness all ward nurses gain an opportunity to be educated while assuring minimal disruption to their usual schedules. It is further notable that pharmacists will develop pictorial charts and attach them to drug trolleys. Particularly, these charts are expected to reinforce the required, correct inhaler techniques.

It is further notable that returns of the self-management care bundle will be assessed during weekly project meetings to refine any administrative and related processes surrounding the intervention; having employed a "plan, do, study, act" technique. Similarly, the intervention strives to increase the participants' engagement with the project by allowing the ward nurses to complete safe discharge checklists. Additionally, the intervention seeks to enhance the stakeholders' engagement with the project by implementing pulmonary rehabilitation as a complementary aspect of self-management immediately after the patients' discharge. Hillas, Perlikos, Tsiligianni and Tzanakis (2015) documented that health professionals could improve patient compliance by gaining a clear understanding of what constitutes self-management and proceed to communicate to patients and families about the strength of evidence associated with the self-management practice. Based on these observations, the implementation of the program at Mercy Medical Center involves pulmonary rehabilitation sessions that aid in sensitizing the ward staff about the criticality of advocating for and accommodating the patients' and families' input during the post-discharge stage of COPD.

Results

During the initial stage of performance analysis regarding the implementation of self-management at the healthcare institution, the major path involved the collection of feedback from COPD patients, their families, and members of the team in the respiratory ward. The evaluation will aim to establish whether the self-management intervention will have met the intended goal of reducing readmission rates among COPD adult patients admitted to the healthcare institution. Apart

from summative feedback, formative feedback is worth collecting throughout the intervention. As affirmed by Jain, Allison and Beck et al. (2014), the formative feedback aids in steering incremental improvements to the self-management practice; having informed the required changes toward program improvement. From the practice setting, faculty in the respiratory ward and departments will be surveyed and given an opportunity to respond regarding the patients' interpretation of self-monitoring of symptoms and self-administering of prescribed drugs; aiding further in the determination of the efficacy of the written action plans seeking to alter COPD patient readmission rates at the post-discharge stage. Jordan *et al.* (2015) observed further that self-management intervention is likely to achieve more beneficial outcomes by using a 4-point rating scale (during the evaluation of the program). Particularly, the study revealed that four aspects that are worth utilizing to understand the degree of program success include "very useful," "useful," "somewhat useful," and "not useful." The implication for the designed use case is that the 4-point rating scale needs to be used to establish the extent to which self-management training from the context of Mercy Medical Center's respiratory ward is effective. Notably, the formal feedback received from the patients, families, and even nurses' rating of the self-management best practice seeking to address readmission rates among COPD patients informs the efficacy of the intervention.

The evaluation of best practices such as self-management strategies stretched beyond formal feedback to incorporate formative feedback from patients and the trainers. Similar to the observations by Majothi *et al.* (2015), this formative feedback was found to be important in such a way that it allowed the program implementers to make adjustments by rephrasing, deemphasizing, and emphasizing certain material of the self-management intervention; a step that aimed at enhancing learning among practitioners, as well as COPD patients and their families.

From the specific results of program implementation, self-management by using written action plans yielded several beneficial effects to the target healthcare organization. In the pharmacy, the percentage number of patients who visited the department reduced significantly (20%); especially after the statistics were reviewed in the first 30 days after the COPD patients' discharge. At Mercy Medical Center, findings demonstrated further that the written action plans reduced medication errors and other adverse events due to advance care planning, provided room for pharmacists to tailor pharmaceutical therapies and dosages to the needs of patients, and reduced the occurrence of other COPD-related health conditions; including heart attacks, heart failure, pneumonia, and knee or elective hip replacements.

Conclusion

Based on these results, this study inferred that when pharmacists lead patients in self-management via the advance preparation of written action plans, there is likely to be a significant reduction in the rate of readmission. Also, the action plans were found to reflect pharmacists' crucial role of improving health care service quality or steering patient satisfaction via the avoidance of adverse or sentinel events, besides addressing possible morbidities that could arise from inadequate advance planning at the unit or department level. In future, the study recommends the need for Mercy Medical Center and other healthcare organizations to facilitate pharmacists in a

manner that would enable them to lead COPD patients in self-management via the preparation of written action plans.

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