

Literature Review

THE EFFECTS OF SELF-MANAGEMENT EDUCATION ON PATIENT OUTCOMES: A LITERATURE REVIEW

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Abstract

Background: Self-management programs have been reported to help patients manage symptoms for chronic diseases such as asthma. Asthma self-management education combining with behavior therapy is considered to be more effective.

Objective: The purpose of this review was to identify of current published literature on asthma self management programs to established self management strategies.

Design: This research type was literature review. Article as reference searched in google scholar with key word “self management” and “asthma” and science direct engine with key word; “asthma” and “self management”; and also with “asthma” and “self management and “behaviour” in science direct. Inclusion criteria are quantitative research in journal or scientific work about asthma self management education as independent variable. Exclusion criteria were literature article.

Data Sources (include search dates): Google Scholar and Science Direct are data based used to explore the article on May 2022.

Review Methods: PECOT/PICOT framework P(patient/problem): Asthma; E/I(exposure/implementation): Asthma self-management education; C(control): routine care; O(outcome): patient outcome.

Results: limitation search are years, and population. Seventeen articles are found 13 of them are second sources. Four articles was explain there was an effect of self management education on patient outcomes: self efficacy, knowledge, and quality of life.

Conclusion: Asthma self management education was effective to increase patient outcome: asthma knowledge, the quality of asthma control, self efficacy, and quality of life.

Keywords: Asthma, Patient Outcomes, Self Management Education

INTRODUCTION

People severing asthma have to manage their long-term condition so that they can apply

to their daily life. Self-management programs have been reported to help patients manage symptoms for several chronic conditions.

Asthma self-management education combining with behavior therapy is considered to be more effective. Self management programmes have been developed to implement the strategy for improving management at asthma such as asthma education and patient adherence. to identify of current published literature on asthma self management programs to established self management strategies.

Asthma is a major non communicable disease (NCD) affecting both children and adults (WHO, 2022). Based on WHO Non Communicable Disease data in Southeast Asia, it is estimated that 1.4 million people died from chronic lung disease, of which 86% were due to chronic obstructive pulmonary disease, and 7.8% were due to asthma. WHO fact sheet 2011, states that there are 235 million people suffering from asthma in the world, 80% are in low-income countries and middle class, including Indonesia. Respiratory tract diseases that caused the most deaths were Tuberculosis (7.5%) and Lower Tract Respiratory Disease (5.1%). Based on data from the Hospital Information System (SIRS) in Indonesia, it was found that the death rate due to asthma was 63,584 people. From the 2013 Riskesdas data, most asthma patients in Indonesia are from the lower and lower middle class (disabled), the percentage for the lower middle class is 4.7% and the lowest is 5.8% (Ministry of Health, 2014).

Many factors have been linked to an increased risk of developing asthma, although it is often difficult to find a single, direct cause. Asthma is more likely if other family members also have asthma, allergic condition, Children and adults who are overweight or obese are at a greater risk of asthma. People with prolonged asthma can effect on sleep disturbance, tiredness during the day, and lack of concentration. Asthma effect not only individuals but also to their family. Miss school and work, with financial impact on the family and wider community. Emergency health care may needed in severe symptoms. Treatment and monitoring are needed for hospital admission. In the most severe cases, asthma can lead to death (WHO, 2022)

In health care system asthma self management take an important part. The definition of Self-management is the individuals tasks that must implement to daily live with their chronic condition, such as management for medication or emotional.

Asthma self-management interventions motivate patients to actively participate in their self care and increases their responsibility for managing the symptoms and complications of their disease. Strategies focus on education, empowerment, self-judgement and adherence to preventative strategies.

METHODS

This research type was literature review. Google Scholar, Science direct was data based used in article search, through the PECOT/PICOT framework P (patient/problem): Asthma; E/I (exposure/implementation): Asthma self-management education; C(control): routine care; O(outcome): patient outcome.

This literature review is organized by several stages of search strategy. The first search was carried out in Google Scholar, Science Direct which was connected using the exploration keywords. Article as reference searched in google scholar with keyword “self-management” and “asthma” and science direct engine with key word; “asthma” and “self-management”; and also with “asthma” and “self-management and “behaviour” in science direct.

Inclusion criteria are quantitative research in journal or scientific work about asthma self-management education as independent variable. Exclusion criteria were literature article. Final result for the article; google scholar found 29 article and 2 article that meet inclusion criteria and from science direct search engine that found 2 articles that meet inclusion criteria, four articles use as literature review in this research.

The second stage was to do a manual search from the first search result. Some of the criteria used in the selection of articles were:

1. The article used was an original reference, not a second source
2. The author of the article is a health practitioner
3. Research reports on the effectiveness of asthma self-management and patient outcomes

4. The limitations used in article search are population of people with asthma education, randomized control trial aged 18-65 years, 2012-2022.

RESULTS

Several kinds of interventions from each asthma self-management education study showed different results on patient outcomes. Score self-efficacy, self-management behavior, and quality of life before and after intervention in the intervention and control groups, there were statistically significant differences (Maghfiroh, 2016).

The rate of asthma control in these research was low and the patients had wide gaps in knowledge of important items related to preventive strategies for asthma and medication

use which are important to self-management of the disease (Elbur, et al., 2017). The increasing for asthma knowledge and the improvement in medication adherence was found as result (Boulet, et al., 2015)

Participants showed significantly increase at follow-up than they did at baseline assessment, with the most improvements observed in the group that watched both community and knowledge videos (Poureslami, et al., 2012).

Participants in the intervention group reported quality of life patient asthma Compared with usual care, significantly higher ,and the change in asthma quality of life for the intervention group between baseline and 3 months was not seen in the control group (Ahmed, et al., 2016).

Table 1. References Study about Asthma Self Management Education on Patients Outcomes

| No. | Title | Aims of Study | Methodology | Outcomes | Reference |
|-----|--|--|--|--|-----------|
| 1. | The Effect of Self-Management Education on Self-Efficacy, Self-Management Behavior, And Quality of Life In Asthma Patients Lung Hospital Dr. Rotinsulu Bandung | examine the effect of self-management education on self-efficacy, behavior self-management, and quality of life in asthmatic patients | <i>This quasi-experiment involved 35 divided adult asthma responders into the intervention (n=17) and control (n=18) groups with consecutive techniques sampling</i> | <i>self-efficacy, self-management behavior, and quality of life</i> | 1 |
| 2. | Benefits of an asthma education program provided at primary care sites on asthma outcomes | To demonstrate the benefits of an educational program offered at the site of primary care (Family Medicine Clinics-FMC) by trained asthma educators on patient outcomes and healthcare use | This was a one-year pre-post intervention study. Patients with a diagnosis of mild to moderate asthma were enrolled from six FMC (Family Medical Clinic) | Expiratory flows, asthma control criteria, knowledge about asthma, adherence to medication and healthcare | 2 |
| 3. | Self-management and control of asthma among adult patients in King Faisal medical complex Taif, KSA | The Effectiveness of Web-Based Asthma Self-Management System, My Asthma Portal (MAP): A Pilot Randomized Controlled Trial | A multicenter, parallel, 2-arm, pilot, randomized controlled trial was conducted with 100 adults with confirmed diagnosis of asthma from 2 specialty clinics | Primary Outcomes: Asthma Control at 6 months Asthma Quality of Life Secondary Outcomes: Demographic information The Chronic Disease Self-Efficacy Scale | 3 |

| No. | Title | Aims of Study | Methodology | Outcomes | Reference |
|-----|--|--|--|---|-----------|
| | | | | The Asthma Control Test Beliefs About Medicines Questionnaire EuroQol Visual Analogue Scale Asthma-Related ED Visits or Hospitalizations | |
| 4. | Effectiveness of Educational Interventions on Asthma Self-Management in Punjabi and Chinese Asthma Patients: A Randomized Controlled Trial | explore the effectiveness of different formats of culturally relevant information and its impact on asthma patients' self-management within the Punjabi, Mandarin, and Cantonese communities | random to three experimental groups (watched one or both videos) and one comparison group (read pictorial pamphlet) and participated in three in-person interviews and one telephone interview within a 9-month period | Knowledge of asthma symptoms, inhaler use, and understanding of physician's instructions | 4 |

DISCUSSION

The intervention group in Maghfiroh's study (2016) received self-management education consisting of information assistance regarding asthma and its treatment, preparation of written action plan sheets, self-monitoring of symptoms, and follow-up by phone.

Patients could be referred to the educator by the physicians practicing at these clinics. The educational intervention aiming at improving self-control of patients was based on the QACN learning program for educators and included the following topics asthma control, smoking habits, environmental control, use of an action plan, patient knowledge and understanding of the disease (pathophysiology, medication, exacerbations), adherence to medication, inhalator technique, and spirometry (Boulet, 2015).

Asthma management education was delivered by video and pamphlet. Outcomes of these research was knowledge of asthma triggers (environmental-related and behavioral-related triggers) and symptoms; inhaler use skills and patient-reported medication adherence were measured (draw out the applicability) (Poureslami, et al., 2012).

MAP (My Asthma Portal) that was linked to case management system developed to support patient self-management. MAP facilitate communication with the care team between visits using an iterative design process based on behavior change and self-efficacy theory (Ahmed, et al., 2016).

CONCLUSION

The results of trials comparing asthma self-management education to usual care were combined. These results showed that asthma sufferers who were educated about their asthma, visited the doctor regularly and who used a written action plan had increased self management education on patient outcomes: self efficacy, knowledge, and quality of life. Research with an RCT design in conducting sample selection must be carried out randomly, with the same participant characteristics between the treatment group and the control group. Outcome measurements must be carried out with standardized tools to avoid bias.

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DECLARATION OF CONFLICTING INTEREST

The author declares that there are no other interests or conflicts that may arise as a result of the publication of this research article.

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AUTHOR CONTRIBUTION

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