

THE USE OF PATIENT-BASED PAIN EDUCATION TO REDUCE BARRIERS TO CANCER PAIN MANAGEMENT: A LITERATURE REVIEW

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Literature Review

Pain is one of the most distressing symptoms affecting patients with cancer at different stages of the disease. Nevertheless, it is estimated that one of two cancer patients with pain do not receive effective management for their pain, despite international guidelines that aim to treat cancer pain including the World Health Organization (WHO) and the National Cancer Institute (NCI) guidelines.[1-3].

Barriers to cancer pain management include patient related barriers, health care professional barriers, and system barriers; usually lead to the undertreatment of pain.[4]. Patient related barriers include misconceptions about analgesics and their side effects, nonadherence to treatment regimens, and poor pain communication with health care providers[5]. As a definitive approach to reduce patient related barriers to cancer related management Pain education program (PEP) has evolved. PEP includes comprehensive information regarding pain and pain treatment including the definition and causes of pain, pain treatment approaches and their side-effects, myths and misconceptions about pain management, consequences of mal-adherence to prescribed treatment, the use of nonpharmacologic pain treatment, and pain assessment.[6]. Thus, this review aims to evaluate whether pain education programs can reduce patient barriers to pain management in adult cancer patients or not.

Abstract

Introduction: The treatment of cancer pain is considered as a complicated process. Many cancer patients with pain report that they are undertreated, despite the utilization of best international guidelines for treating cancer pain. Barriers to cancer pain management are thought to have a contributory role in the undertreatment of pain. Educational programs have focused on treating barriers to pain management in patients with cancer.

Purpose: to evaluate the efficacy of pain education programs in reducing barriers to cancer pain management. **Methodology:** using the key words pain education program, cancer patients, barriers, and pain management; an electronic search was conducted on the databases Pubmed, Google, and Science Direct. The end result of the search led to selection of ten articles to build the evidence for use in clinical practice.

Findings: all of the articles used in this review indicated that pain education can reduce barriers to cancer pain management.

Conclusion and Recommendations: Pain education programs are an effective approach in the treatment of patient-related barriers to cancer pain management. It is strongly recommended to integrate PEP within the treatment course of cancer pain. Further, it is reinforced that all institutions dealing with cancer patients hold specialized health care professionals who are able to administer PEPs.

Key words: pain education program, cancer patients, barriers, pain management

PICO

PICO Question

What is the effect of a pain education program on barriers to pain management in adult patients with cancer?

People\Patient	Intervention	Comparison	Outcome
Adult Patients with Cancer	Pain Education Program	Usual Care	Reduction in Barriers to Pain Management

Methodology

Electronic literature search using the key words: pain education program, cancer patients, barriers, and pain management was done seeking articles published between the years 2008 and 2013 on the databases Pubmed, Google, and Science Direct. A total of 109 articles have been retrieved. After selection based on the abstract and contents of the articles, ten articles were selected to build the evidence for evaluating the effect of pain education programs on barriers to cancer pain management as a general term or on specific aspects of those barriers. Nine of these articles are randomized controlled trials which are level two of evidence. The remaining article is a quasi-experimental article that is classified as level three of evidence.

Findings

A randomized, controlled study; that included 176 subjects, assessed the effect of representational intervention on decreasing barriers to pain management in patients with cancer. The study is determined as level two of evidence. The representational program adopts that a change (can be inferred to be a reduction in barriers to cancer pain management) is facilitated when individuals are given the opportunity to monitor and comment on their own ideas, whereas this can be achieved by education. The subjects in the representational programs reported less barriers score than those in the control group[7]. In another randomized controlled study (level two evidence), Ward and colleagues evaluated the efficacy of a tailored educational intervention in reducing attitudinal barriers held by patients with cancer. After the intervention, the group received educational intervention has shown significantly lower attitudinal barriers scores compared to the two other groups[8]. In Turkey, a randomized controlled design (level two of evidence) was used to investigate the effect of pain education program on pain intensity, pain treatment satisfaction, and barriers in patients with cancer. The study concluded that PEP results in decreased barriers scores in patients with cancer.[5] Aiming to test the effect of an educational program combined with system change interventions on reducing barriers to pain and fatigue management, a quasi-experimental study (level three of evidence) was conducted. In this study, the intervention was found to be effective in reducing barriers to pain management in patients with cancer[9]. Even short educational interventions were found to reduce barriers to cancer pain management as evidenced by a randomized controlled study (level two of evidence) conducted by Smith and colleagues[10].

Al-Atiyyat (2008) has summarized the barriers cancer patients have toward pain management. Among these barriers, is the belief that "good" patients do not complain about pain, which consequently leads to underreporting of their pain. Improving patient's communication of pain through educational sessions in cancer patients holds the premises of overcoming

patient's negative misconceptions about analgesics, increasing adherence to pain medications, and achieving effective pain management in those patients[11,12]. In order to investigate the effectiveness of tailored education and coaching intervention on pain outcomes, a randomized controlled study (level two of evidence) that included 258 patients was conducted. Among these outcomes is pain communication self-efficacy that is found to improve significantly after receiving the intervention[4]. In order to enhance patient communication of cancer pain to physicians, an experimental study was conducted. The intervention group received Tailored Education Coaching (TEC) intervention that helps patients learn pain management and communication skills. After the intervention, patients in the TEC group were more able to discuss their pain concerns with their physicians than those in the control group[13].

Lack of knowledge about pain and pain treatment leads to negative attitudes toward complying with pain treatment.[14]. Therefore, improving patient's knowledge about pain will enhance the outcome of pain management. In a randomized controlled study that is determined as level two of evidence, 120 patients were randomized to PEP and control groups. The knowledge of pain improved significantly after receiving PEP[15].

Adherence to analgesic use serves as an indicator to which degree patients are holding barriers to pain management. Oldenmenger and her colleagues conducted a randomized controlled study that is level two of evidence. The aim of the study was to assess the effect of Pain Education Program and Pain Consultation (PEP-PC) on pain levels, pain interference, and adherence to analgesic use. The PEP-PC was found to improve adherence to analgesic use[5].

A study conducted by Lovell and colleagues evaluated the effect of an intervention that affords booklet and videos about pain and pain management on improving pain outcomes in patients with cancer. Using a randomized, controlled design, which is determined as level two of evidence, the intervention resulted in decreased pain intensity and in the reduction of the addiction subscale score of the barriers questionnaire[16].

Appraisal of the Evidence

Strengths of the Evidence

Among the strength points of this evidence is that most of the articles included are level two of evidence, with the exception of one article that is level three of evidence. Another strength point is that all of the references used in the evidence were conducted within the years 2008 till 2013. The references in this evidence were selected from international journals, without the need to revise internet websites, posing additional strength for the evidence.

Limitations of the Evidence

Two of the articles had low sample sizes of 40 and 42 patients; however, the sample size in the other studies enhances the generalizability of the evidence. One of the limitations of this evidence is that the barriers questionnaire used along all of the articles was not the same version which may affect the consistency of the findings in this evidence.

Summary of the Evidence

Among the ten articles considered to be used in this paper, six articles focused on assessing the effectiveness of educational interventions on reducing barriers to cancer pain management. The articles have found that education can be an effective approach to reduce barriers to pain management in patients with cancer. One of the articles evaluated the efficacy of PEP in improving cancer patient's knowledge about pain, and found that PEP is an effective approach to improve patient's knowledge about pain. Two of the articles assessed the effect of PEP on cancer patient's pain communication. PEP was found to improve pain communication efficacy in patients with cancer. Another study proved that PEP improves patients' adherence to analgesic use. One of the articles has investigated the advantage of the use of self-administered PEP via booklet and/or videotapes in the treatment of patient barriers to cancer pain management; the intervention was effective in reducing some of the barriers related to the fear of addiction.

Conclusion

Barriers to pain management are the leading cause of under treatment of pain in patients with cancer. Based on the findings of this evidence, it can be concluded that pain education programs are an effective approach in the treatment of patient-related barriers to cancer pain management. It is strongly recommended to integrate PEP within treatment schedules planned for patients with cancer. Focusing on the barriers each patient holds will be more efficient than to provide them with information that is already known to him/her. It is important to provide all health care institutions with professionals who are able to administer PEPs.

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