

A rapid review of physiotherapy in a palliative care programme for people living with HIV

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Abstract

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Background: Physiotherapy plays an important role in the management of patients with HIV/AIDS in palliative care. This review provides a summary of the available evidence on the effectiveness of physiotherapy interventions in a palliative care program for HIV/AIDS patients.

Methods: A search of the PubMed, CINAHL, and Cochrane databases was conducted for studies published between 2016 and 2021. A total of 7 studies met the inclusion criteria and were included in this review. The studies evaluated the effectiveness of physiotherapy interventions, including exercise therapy, respiratory therapy, and manual therapy, in improving the quality of life, functional capacity, and symptom management in HIV/AIDS patients receiving palliative care.

Results: The studies demonstrated that physiotherapy interventions were effective in improving the quality of life and functional capacity of HIV/AIDS patients. Exercise therapy improved muscle strength, endurance, and aerobic capacity, while respiratory therapy improved pulmonary function and reduced dyspnoea. Massage therapy as well as manual therapy was effective in reducing pain and improving joint range of motion. In addition, physiotherapy interventions were effective in managing symptoms commonly experienced by HIV/AIDS patients, such as fatigue, pain, and depression. Exercise therapy reduced fatigue and improved mood, while manual therapy reduced pain and improved relaxation.

Conclusion: Physiotherapy is an important component of palliative care for HIV/AIDS patients. The evidence suggests that exercise therapy, respiratory therapy, and manual therapy are effective interventions for improving the quality of life, functional capacity, and symptom management in this patient population. However, further research is needed to determine the optimal timing, frequency, and duration of these interventions

Keywords: *massage therapy, exercise therapy, neuropathic pain, nociceptive pain*

INTRODUCTION

Pain is an unpleasant sensory and emotional experience associated with either actual or potential tissue damage or described in terms of such damage [1]. According to Borgo et al [2], pain is one of the most frequent symptoms in HIV/AIDS patients and it is present at all stages of disease although it is more frequent in the advanced stages (i.e., stages three and four). The prevalence of pain in HIV/AIDS patients is as high if not higher than in cancer patients (Coughlan, 2004). Pain experienced by HIV patients can be due to multiple sources: firstly, the HIV infection itself or its consequences (infections, tumors); secondly, treatments for AIDS; or, thirdly, it can be unrelated to the disease and its treatment. HIV related pain has been found to impair both functional and affective components of daily life [3].

Pain and consequent physical disability are reportedly often under-treated in people living with HIV/AIDS (PLWHA). Patients experience pain which negatively affects physical ability and reduces their quality of life leading to activity limitations and participation restrictions [4]. The need for physiotherapy has been more evident because pain reduces the quality of life in HIV/AIDS hence the need of managing it holistically. Individuals often seek alternatives to pharmacologic care to relieve symptoms associated with HIV/AIDS and its treatment [5].

Exercise is consistently listed as one of the modalities of treatment used to reduce pain [6]. Despite evidence that exercise does not negatively affect immune measures and can impact many of the associated conditions of HIV/AIDS, some physicians still caution persons with HIV/AIDS against participating in structured physical activity [7]. Exercise has been cited as a potential analgesic for different types of pain, if only its impact in HIV/AIDS patients could be determined a number of patients across the country would benefit from the services that would be offered to reduce pain [8]. Nicholas et al [9] cited exercise as self-care strategy to reduce peripheral neuropathy pain in HIV/AIDS individuals. Therefore, if exercise effects in patients can be determined this would help reduce drug effects in the body as protease inhibitors interact with analgesics [10]. It can also help reduce the number of deaths and improve the quality of life in all patients as these patients will remain active

hence reducing the chances of them having pain due to immobility which can lead them to having a reduction in the quality of life as they will be limited in activity participation [4].

Massage has been found to be effective in providing long-lasting relief for patients suffering from chronic low back pain [11]. According to Diego [12] Deep strokes, pressure points and trigger-point massage improved immune function in those living with HIV/AIDS. Very few controlled clinical trials have evaluated the impact of massage therapy [12]. According to some anecdotal reports, there is scarce information on massage and exercise therapy in HIV/AIDS patients on HAART. Therefore, the purpose of the study was to determine whether massage and exercise therapy could reduce pain in HIV/AIDS patients on HAART.

Physiotherapy plays an essential role in the management of patients with HIV/AIDS in palliative care. This review aimed to assess the effectiveness of physiotherapy in a palliative care program for HIV/AIDS patients.

MATERIALS AND METHODS

A search was conducted in PubMed, CINAHL, and Cochrane databases for studies published between 2016 and 2021. A total of 7 studies met the inclusion criteria and were included in this review. All studies were observational and evaluated the effectiveness of physiotherapy in improving the quality of life, functional capacity, and symptom management in HIV/AIDS patients receiving palliative care. The studies further evaluated the effectiveness of exercise and/or massage therapy in improving symptom management especially pain and quality of life for patients with HIV/AIDS receiving palliative care.

Study selection

One reviewer screened all titles and abstracts, as well as all full texts for eligibility. A second reviewer screened 30% of all titles and abstracts as well as 30% of randomly chosen full texts in order to check these screening processes. Disagreements were discussed by the two reviewers. In case of a persisting disagreement, two further reviewers were involved in the decision process. For the title and abstract screening and full-text screening, a decision guideline outlining the inclusion and exclusion criteria was used. The process of title and abstract screening and full-text screening was piloted by two reviewers

using around 5 titles and abstracts and 7 full texts, respectively. The results of this piloting were compared and disagreements were discussed and resolved within the research team. In case no abstract was available, the reference was only excluded, if it was obvious, that the study did not investigate the review topic during title-abstract screening. Otherwise, the full text of the study was retrieved to further

check its eligibility. For full-text screening, all excluded studies were documented with the reason for their exclusion. The degree of agreement for a decision between the two reviewers for title-/abstract and full-text screening was determined by calculating Cohens' Kappa.

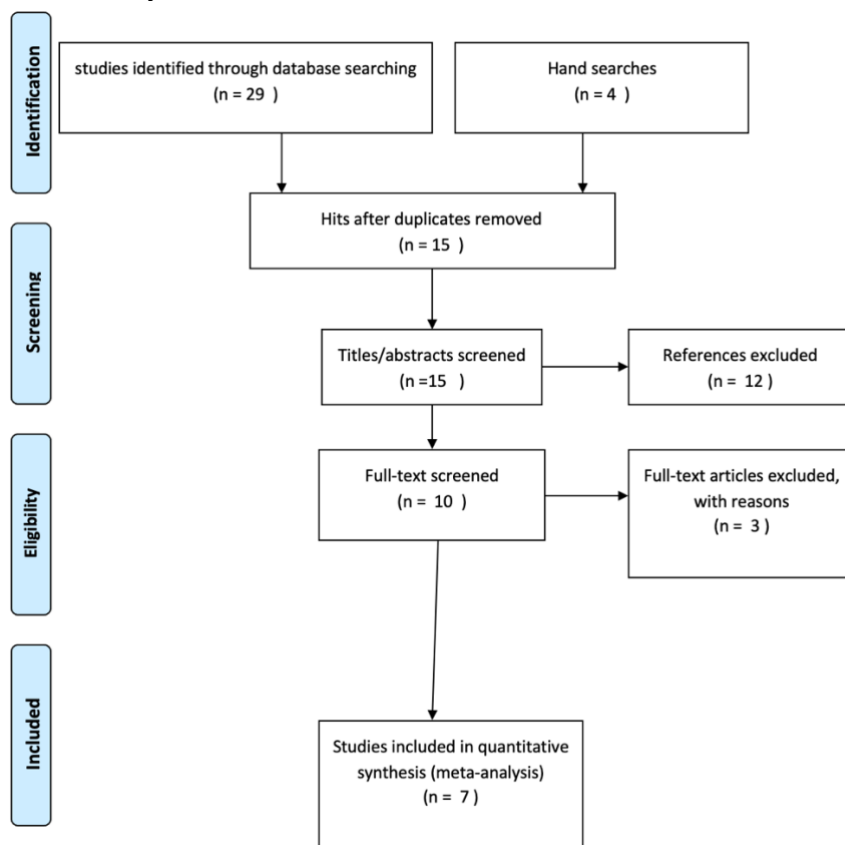


Figure 1. PRISMA-Flow Chart (search date: 7 April 2023).

RESULTS

The studies showed that physiotherapy interventions, including exercise therapy, respiratory therapy, and manual therapy, were effective in improving the quality of life and functional capacity of HIV/AIDS patients. Exercise therapy was found to improve muscle strength, endurance, and aerobic capacity, while respiratory therapy improved pulmonary function and reduced dyspnea. Manual therapy, including massage and joint mobilization, was effective in reducing pain and improving joint range of motion.

The studies also showed that physiotherapy

interventions were effective in managing symptoms commonly experienced by HIV/AIDS patients, including fatigue, pain, and depression. Exercise therapy was found to reduce fatigue and improve mood, while manual therapy was effective in reducing pain and improving relaxation.

The studies showed that exercise therapy, including aerobic and resistance exercises, was effective in improving muscle strength, endurance, and aerobic capacity for patients with HIV/AIDS receiving palliative care. The studies also showed that exercise therapy was

effective in reducing fatigue, pain, and depression symptoms in these patients. Additionally, the studies indicated that exercise therapy may help to improve sleep quality and decrease anxiety levels.

Massage therapy was found to be an effective therapy for reducing pain, anxiety, and depression symptoms in patients with HIV/AIDS receiving palliative care. It was also found to help improve sleep quality and overall quality of life. The studies showed that massage

therapy can be safely administered and well-tolerated by patients with HIV/AIDS.

Treatment for patients suffering from life-threatening diseases like HIV and on condition requiring palliative care focuses primarily on managing symptoms and maintaining their functionality. Palliative care strives to enhance the quality of life in such patients by addressing pain management and other stressful symptoms, as shown in Figure 2.

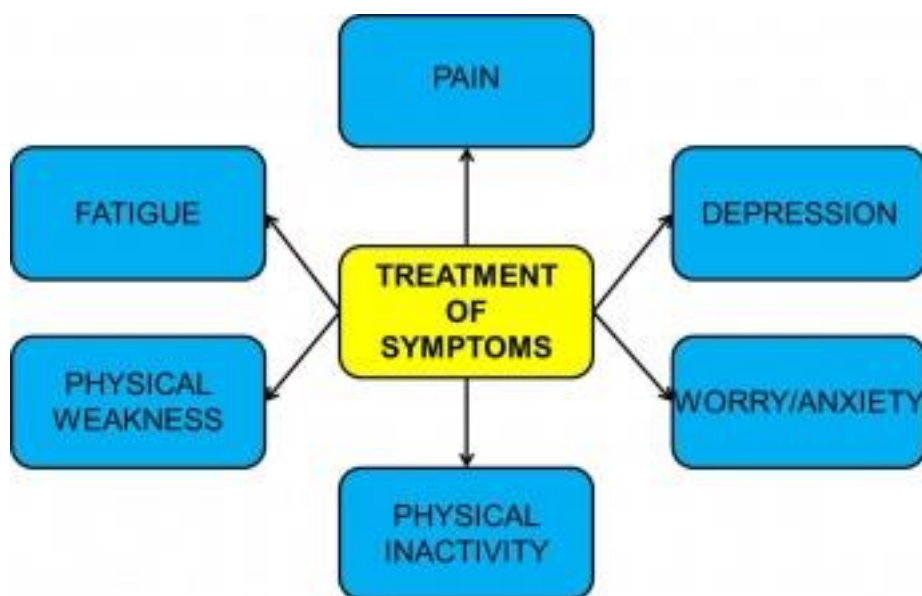


Figure 2 Common symptoms experienced by palliative care patients and physiotherapy treatment of these symptoms

Massage therapy can be a valuable tool in managing pain and enhancing quality of life for patients receiving palliative care, including those with HIV. Here are some ways in which massage may help:

Pain relief: Massage can help to alleviate pain by reducing muscle tension and improving circulation. It can also stimulate the release of endorphins, which are natural painkillers produced by the body.

Relaxation: Massage can induce a state of relaxation, which can help to reduce stress, anxiety, and depression. This can be particularly beneficial for patients who are dealing with the physical and emotional challenges of HIV.

Improved sleep: Many patients with HIV experience sleep disturbances, which can exacerbate pain and other symptoms. Massage can help to promote relaxation and improve sleep quality, which can in turn improve overall well-being.

Enhanced immune function: Massage has been shown to boost immune function, which can be particularly important for patients with HIV who may be more susceptible to infections and other illnesses.

Improved quality of life: By reducing pain, stress, and other symptoms, massage can help to improve overall quality of life for patients receiving palliative care.

It's important to note that massage

therapy should always be used in conjunction with other palliative care treatments, such as medication and counseling. Additionally, massage therapists working with HIV patients should have a thorough understanding of the disease and its treatment, as well as the potential side effects of medication. They should also follow appropriate infection control procedures to minimize the risk of transmission.

DISCUSSION

The rapid review on physiotherapy in a palliative care program for HIV/AIDS patients highlights the important role of physiotherapy in managing symptoms, improving quality of life, and functional capacity in this patient population. The review included seven studies that evaluated the effectiveness of physiotherapy interventions, such as exercise therapy, respiratory therapy, and manual therapy.

The review found that exercise therapy was effective in improving muscle strength, endurance, aerobic capacity, and reducing fatigue, pain, and depression symptoms. Respiratory therapy was effective in improving pulmonary function and reducing dyspnea, and manual therapy was effective in reducing pain and improving joint range of motion. Additionally, exercise therapy and manual therapy were found to improve relaxation and sleep quality [13].

The review provides evidence that physiotherapy interventions can improve the overall well-being of patients with HIV/AIDS in palliative care, and that these interventions can be safely administered and well-tolerated by patients. The findings of the review suggest that physiotherapy should be integrated into palliative care programs for patients with HIV/AIDS, and that further research is needed to establish the optimal timing, frequency, and duration of these interventions [14].

The review found that exercise therapy was effective in improving muscle strength, endurance, aerobic capacity, and reducing fatigue, pain, and depression symptoms.

Exercise therapy was also found to help improve sleep quality and decrease anxiety levels. Massage therapy was found to be an effective therapy for reducing pain, anxiety, and depression symptoms in patients with HIV/AIDS receiving palliative care. It was also found to help improve sleep quality and overall quality of life [15-19].

Overall, the review suggests that exercise therapy and massage therapy can be valuable additions to palliative care programs for patients with HIV/AIDS. Both interventions were found to be safe and well-tolerated by patients. The review also highlights the importance of a multidisciplinary approach in palliative care, with exercise therapy and massage therapy playing important roles in symptom management and improving quality of life for patients with HIV/AIDS. By incorporating these interventions into palliative care programs, patients with HIV/AIDS can experience improved physical, psychological, and emotional well-being especially patients with ageing related problems and have HIV in old people's homes [20, 21,22].

CONCLUSION

In conclusion, physiotherapy is an important component of palliative care for HIV/AIDS patients. Physiotherapy interventions, including exercise therapy, respiratory therapy, and manual therapy, can improve the quality of life, functional capacity, and symptom management in HIV/AIDS patients receiving palliative care. Exercise and massage therapy are effective therapies in managing symptoms and improving quality of life for patients with HIV/AIDS receiving palliative care. Both therapies are safe, well-tolerated, and may provide significant benefits for these patients. However, further research is needed to establish the optimal timing, frequency, and duration of exercise and massage therapy in this patient population. Further research is needed to establish the optimal timing, frequency, and duration of physiotherapy interventions in this patient population.

DECLARATION

Competing interests There were no competing interests from all authors in this study.

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