

# A Systematic Review of Physiotherapy in Pediatric Palliative Care

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## Introduction

Pediatric palliative care (PPC) is defined by the World Health Organization (WHO) as actions aimed at children with severe, chronic, progressive, disabling, advanced, or life-threatening diseases, with the goal of reducing suffering and improving quality of life throughout the entire process, regardless of the disease's stage. These are active and integrated cares aimed at preventing and alleviating pain and other bodily symptoms, as well as providing required support to the patient's psychological, social and spiritual needs.

Although the WHO and the American Academy of Pediatrics advocated a comparable model in 1998 and 2000, respectively, in which PPC should be commenced regardless of whether the kid got curative therapy or not, the mentioned models of PPC have been updated throughout time. But a result, PPC are not only focused at children in terminal stages, as they are began when a life-threatening disease is discovered and maintained throughout the disease's progression, including, if necessary, during the grieving process of the family.

## Description

The current study enables researchers to assess the scientific data on physiotherapy in children receiving palliative care. PPC, as previously stated, is a set of treatments used to treat children who have a serious or life-threatening disease with the goal of reducing symptoms and increasing the child's and family's quality of life. They can begin at any age and at any stage of the disease and they can even be given in conjunction with curative treatment. Physical therapy, which can be done by physiotherapists, is one of the treatments used to control symptoms. To investigate this, the literature from the previous ten years was evaluated, with just seven publications meeting the inclusion requirements.

The majority of the papers were rejected because the primary treatment for children was pharmacological, or the study sample consisted entirely of adults. Furthermore, several articles extrapolated adult-to-child solutions, ignoring the fact that children and adolescents' physical, emotional and cognitive development must be taken into account while developing palliative care measures. The role of physiotherapy in PPC can be studied and understood in a variety of methods, ranging from child studies to the experiences of patients' families and even directly from PPC experts.

This is why the current study's population is so diverse and diversified. The age range of children is 0.6 months to 17 years, the age range of parents with

children in PPC is 29 to 51 years and the age range of physiotherapists working in PPC is 20 to 50 years. Although there was a predominance of females in the various communities investigated, conclusive information on sex could not be obtained because some studies did not contain this data; however, there was a predominance of females in the many populations analysed. The most investigated disorders are cerebral palsy (CP) and cancer, followed by SMA1.

The most examined variable was symptom management. Also notable are pain and quality of life, both of which were assessed using various approaches. Genik used painsquad, FPS-R and the pedsq Cancer Module, hully et al. used parental questionnaires and Weingarten et al. used research assistant questionnaires. Sarmad et al. looked at motor function management using GMFCS and MTS, whereas hully et al. looked at respiratory function management using questionnaires filled out by the parents. Despite the wide range of pathologies studied, many symptoms in children with PPC are common, including pain, respiratory symptoms, neurological symptoms and psychosocial symptoms, however they must be handled differently for each kid and condition.

The most common physiotherapy specialty in PPC is respiratory physiotherapy and approaches for treating neurological symptoms. In the two studies that used it, neurological physiotherapy had a substantial favourable effect ( $p < 0.05$ ). Postural treatment was used in both studies to treat spasticity and prevent abnormalities in the children. It's important mentioning the neurodevelopment and sensory stimulation approaches employed in Sarmad, et al. investigation. Mucociliary clearance in the airways and the prevention and treatment of atelectasis were also improved by respiratory physiotherapy. The interventions' parameters aren't specified.

Several of the research included in this review emphasise the importance of family training, suggesting that because parents are the primary caretakers for their children, they should be educated and trained in the use of motor and respiratory strategies. Physiotherapists train families about secretory management, postural management, control of spasticity or muscular tone and ensuring that the kid is appropriately positioned to rest or eat and develops as few deformations as possible.

Despite the fact that it was not one of the study aims, another important finding for PPC was that the therapies were carried out at home and in the child's environment. Physical therapy at home integrated health care in the child's surroundings, helping to keep relationships with his or her family, decreasing expenditures and retaining the child's capacity in his or her own environment until the very last moment for the parents. Another factor worth mentioning is that physiotherapy in PPC can have a variety of goals, including healing or easing the kid's symptoms, as well as accompanying and supporting the child. This is demonstrated in this review.

The physiotherapists' understanding of PPC was the final study variable. Oliveira et al article's is the only one that assesses it, finding that 93.2 percent of the participants did not receive PPC training during their university education, while 34.1 percent did after graduation [1-5].

## Conclusion

The conclusions of this review show that there isn't enough evidence to support physiotherapy in PPC. Despite the stated benefits, there are few research initiatives and training programmes for physiotherapists in this field, implying that it is underutilised in children receiving palliative care and/or near the end of life.

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## Conflict of Interest

None.

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