The Effects of Physical Therapy on Quality of Life in Adult Patients on Hospice or Palliative Care: A Systematic Review

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INTRODUCTION
Little research has been conducted regarding maintenance and recovery of physical function, specifically for patients with incurable cancer with limited life expectancy. Physical independence and maintenance of strength and endurance throughout the course of disease is a desire of patients receiving hospice or palliative care. Physical activity and nutrition are needed to maintain a sense of well-being, improve quality of life, and reduce emotional distress. Physical therapy during hospice or palliative care is effective to restore physical and psychological function.

PURPOSE
The purpose of this systematic review was to determine the impact of physical therapy intervention on quality of life in adult patients receiving palliative or hospice care.

METHODS
A literature search of PubMed, CINAHL, ProQuest Health and Medical Complete, and ScienceDirect was performed using search terms: (physical therapy) AND (hospice) AND (palliative) AND (quality of life). Search limits were: Peer-reviewed, publication dates between 2006 and 2016, scholarly journals, published in English language, human subjects, and adults aged ≥18 years old. Studies were excluded if they did not measure QOL, subjects were not under hospice or palliative care, or did not include physical therapy intervention. Two reviewers independently assessed each study for methodological quality and came to a consensus based on PEDro guidelines.

PEDro Criteria

| Eligibility Criteria specified | Y | Y | Y | Y |
| Random allocation | N | N | Y | N |
| Concealed allocation | N | N | Y | N |
| Similar groups at baseline | Y | N | N | Y |
| Blinding of subjects | N | N | N | N |
| Blinding of therapists | N | N | N | N |
| Blinding of assessors | N | N | N | N |
| Measure of one key outcome obtained or 85% of subjects | Y | Y | Y | N |
| Intention-to-treat analysis | N | Y | Y | Y |
| Between-group comparisons of at least one key outcome | Y | N | Y | N |
| Point and variability measures for at least one key outcome | N | Y | Y | Y |

*Eligibility criteria does not contribute to score

RESULTS
A total of 62 articles were screened for eligibility. Following detailed evaluation, 4 records satisfied the criteria.
- PEDro scores ranged from 3 to 6, with a mean of 3.75. Sample sizes ranged from 34 to 144 subjects, with a total of 294. There were 99 subjects who dropped out and 78 of those were due to death.
- Treatment parameters varied widely with durations ranging from 20-50 minutes, 2 to 3 times per week for 3 to 12 weeks. Physical therapy interventions included: gait and transfer training, circuit training, stretching, muscle strengthening, standing balance, and aerobic exercise.
- All four studies utilized a different QOL outcome measure. None of the 4 studies found statistically significant increases in QOL while using PT as an intervention. 2 of 4 studies reported that QOL remained stable over the course of PT treatment, and 1 of these 2 studies reported a decline in QOL in the control group. One study reported an insignificant increase in QOL overall (EQ-5D) with a significant increase in 1 of the 5 dimensions (health state status).

Search result from all databases = 62
Articles after duplicates removed = 59
Articles excluded by title = 24
Articles excluded by full text = 33
Hand searched articles= 2
Total articles included = 4

CONCLUSIONS
There is weak evidence that supports utilizing physical therapy as an intervention to maintain or increase QOL in adults receiving palliative or hospice. Further research is needed for larger sample sizes to determine the optimal mode and parameters for PT intervention in palliative and hospice care.

CLINICAL RELEVANCE
Physical therapy interventions may improve or maintain QOL in patients on hospice or palliative care. Healthcare professionals should be educated on inclusion of PT in a patient’s plan of care.

REFERENCES

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