

Best Practices for Public Policies for Palliative Care Physical Therapy:

A Critical Review of the Literature

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**Abstract:**

**Introduction and Purpose:** In comparison to the volume of patients living with a chronic disease or life threatening illness, there remains insufficient availability and affordability of both palliative care (PC) and physical therapy (PT) services. The purpose of this study was to examine the benefits to integration of PT within PC and identify opportunities to improve public policy initiatives to facilitate integration of PT and PC.

**Methods:** A critical review of the literature and perspective regarding PT within PC.

**Results:** The evidence for the importance of PT in PC stems from multiple factors such as reduction in cost, decreased length of stay, fewer hospital readmissions, improved patient/provider satisfaction, increase in quality of life, and symptom management.

Further integration of PT within PC and the associated benefits are heavily influenced by choices made in public policy.

**Discussion:** Public policies that should be addressed include regulation reform of payment and reimbursement, modernization of legislation for access and referrals to PT, institutional support of education for key PT and PC stakeholders and increased funding for support of PT involvement in PC.

**Key Words:**

Medicare, palliative care, physical therapy, healthcare reform

## **Background and Purpose**

Palliative care (PC) is a medical practice focused on treating patients with chronic illnesses through managing symptoms and maintaining overall health.<sup>1</sup> The World Health Organization (WHO) defines PC as “an approach that improves the quality of life of patients and their families facing the problem associated with life-threatening illness, through the prevention and relief of suffering by means of early identification and impeccable assessment and treatment of pain and other problems, physical, psychosocial and spiritual.”<sup>2</sup> Quality of life (QOL), defined by WHO as well, is “an individual's perception of their position in life in the context of the culture and value systems in which they live and in relation to their goals, expectations, standards, and concerns...by the person's physical health, psychological state, personal beliefs, social relationship, and their relationship to salient features of their environment.”<sup>3</sup> The WHO also states that PC “is applicable early in the course of illness, in conjunction with other therapies that are intended to prolong life...”<sup>2</sup> Patients with chronic illnesses and advanced cancers accounted for a significant portion of healthcare costs in the United States as approximately 5 to 10 percent of all patients who are suffering from chronic illness account for half of the United States’ healthcare cost.<sup>4</sup> This number is even more significant when specifically considering Medicare, where 10 percent of the sickest beneficiaries account for approximately 57 percent of total Medicare spending.<sup>5,6</sup> In order to utilize the cost effectiveness of PC services, health care programs need to invest to implement PC programs therefore reducing health care spending in the long run.<sup>4,5</sup>

The Affordable Care Act (ACA) of 2010 emphasized the need for more cost-effective methods of chronic illness management and aimed to increase the accessibility

of palliative care services from all providers including physical therapists.<sup>4,6</sup> Within the ACA was a planned reduction of over \$424 billion in Medicare spending as well as establishing new programs intended to reduce costs and improve quality of care for patients.<sup>4</sup> The ACA also suggested new payment models for programs that influenced PC and hospice such as accountable care organizations (ACOs). An ACO is a collaborative partnership of clinicians, hospitals, and other providers in order to customize efficient and effective care for specific patient populations.<sup>4</sup> After the elections of 2016, these initiatives and their associated cost savings and patient outcomes may be in transition in light of the legislative priorities of the new leadership in state and federal government.

Recent studies have suggested that there are several issues regarding the development and proliferation of PC services, however two main issues identified include accessibility and affordability. Palliative care has been shown to contain healthcare costs as well as maintaining the health and QOL of patients benefiting from palliation however PC is not yet standard of care for patients with a life-threatening or chronic illness.<sup>4,7</sup>

Physical therapists are uniquely qualified to prescribe and administer safe, appropriate interventions with patients with chronic diseases or life-threatening illness.<sup>6</sup> Physical therapists receive extensive education in disease processes, symptom-focused intervention management, and prescribing and dosing appropriate exercises and treatments in the presence of life-threatening illness. In addition, physical therapists' are closely integrated within the traditional medical model. The purpose of this article is to provide a critical review of the literature regarding the complimentary care philosophies and practices of PC and PT in the presence of a chronic or life-threatening disease. Based on the results of the literature review, a perspective will be provided outlining

current public policy barriers and facilitators to further integration of PT within PC. This perspective is provided as a logical next step to propose changes to the administrative components to best achieve the transformative PT practice model and approach that this patient population requires.

## **Methods**

The key databases examined in the literature review included PubMed, CINAHL, and Google Scholar. Key terms searched included “physical therapy”, “palliative care”, “Medicare”, and/or “health care reform”. Experimental studies and peer reviewed articles were preferred especially articles pertaining to the relationship among physical therapy, palliative care, and health insurance reform, with an emphasis on Medicare. After the primary literature review, a secondary analysis of the bibliographies from relevant articles was conducted to identify additional articles not listed in the aforementioned indexes. After articles were identified, authors assessed for common themes and interrelationships between PC and PT.

## **Results**

Palliative care has been shown to improve symptoms, reduce of unwarranted hospitalizations, contain costs across the continuum of a disease process, and increase quality of life for patients with chronic or life threatening diseases. Numerous studies were located that examined patient outcomes for groups receiving PC versus patient groups receiving traditional care. Nearly each study reviewed for this article exemplified how PC and PT has positive effects on patients being treated for chronic illnesses and/or receiving end of life care. Five main themes were identified by the authors of this article

regarding areas in which PC and PT had opportunities to interact to optimize outcomes.  
(Figure 1)

### *Cost Savings Associated with Palliative Care Services*

Morrison et al<sup>8</sup> found significant differences between the costs of patients who received PC and those who did not. “The palliative care patients who were discharged alive had an adjusted net savings of \$1,696 in direct costs per admission ( $p = 0.004$ ) and \$279 in direct costs per day ( $p < 0.001$ ) including significant reductions in laboratory and intensive care unit costs compared with usual care patients. The palliative care patients who died had an adjusted net savings of \$4,908 in direct costs per admission ( $p = 0.003$ ) and \$374 in direct costs per day ( $p < 0.001$ ) including significant reductions in pharmacy, laboratory, and intensive care unit costs compared with usual care patients.”<sup>8</sup> Similar findings were noted for Medicaid patients in a study examining two patient groups enrolled in Medicaid that received PC versus comparable patient group type that did not receive palliative care, including those who were discharged from the hospital and those who died in the hospital setting. Patients who were discharged alive and received palliative care had a net cost of \$32,643 as compared to those who did not receive palliative care whose net cost was \$36,741. Palliative care had a net cost savings of \$316/day for entire admission for those who were discharged alive.<sup>9</sup>

The early, proactive involvement of physical therapy has been shown to improve patient outcomes during hospital stay. Within the intensive care unit (ICU), early mobility demonstrated a reduction in length of stay (LOS) by 22% and a net cost reduction of \$817,836. This study demonstrated that that rehabilitation programs may be best perceived as an investment that improve patient outcomes and reduce long term cost

by decreasing length of stay. These findings may also be reflected in a palliative care situation with the same goal of employing physical therapy to increase function, reduce costs, and decrease length of stay.<sup>10</sup>

Greenapple et al noted that “Payers generally agreed that the ACO and PCMH {patient centered medical home} models offered structures and processes that would facilitate the delivery of coordinated oncology care, which they believe would improve care quality and reduce wasteful or duplicated care.” Although often seen as an added cost to a healthcare system, interdisciplinary oncology care teams appear to assist in the reduction of long term healthcare costs, which can be reflected in the utilization of PC teams and services.<sup>11</sup>

### *Symptom Management*

In addition to experiencing physical symptoms, patients suffering with chronic diseases also endure emotional symptoms, including anxiety and depression. Part of the goal of PC is to improve pain and decrease symptoms for patients. In a longitudinal case study, a patient suffering from head and neck cancer discussed how receiving PC treatment helped to reduce his anxiety by caregivers providing daily emotional support, and by reminding the patient that PC is not the same as end-of-life care and that they are simply emphasizing optimal care for comfort and QOL in any disease state.<sup>12</sup> Patients receiving PC for HIV/AIDS also experienced decreased emotional anxiety when caregivers were provided respite services to reduce the overall care burden.<sup>13</sup> Patients cited anxiety with whom would care for them as their disease progressed or that they would feel like they were a “burden” to their family member/ caregiver.<sup>12</sup> PC teams reduce that stress by coordinating care as well as educating patients, caregivers, and

families on ways to best approach daily care tasks for both the patient and caregiver such as preparing meals, creating daily schedules, and utilizing community services such as transportation.<sup>14</sup>

The role of rehabilitation plays an important role in physical and emotional symptom management. During physical therapy patients may perform exercise and functional activities to maintain strength and participation in daily activities, and the therapist educates the patient on activities of daily living (ADLs), energy conservation techniques, and safety. Pain and other symptoms are managed through physical modalities such as heat or cold pack application, and massage. Rehabilitation as part of PC improves patients' ROM therefore decreasing joint pain.<sup>15</sup> Prescription of assistive devices to modify the patient's participation in daily tasks and environment will optimize the patient's independence with ambulation and overall function. These interventions can improve emotional symptoms such as stress and anxiety of losing autonomy and being dependent on their caregiver.<sup>15</sup> As fatigue is a common finding in chronic disease, cancer and other life threatening illnesses, rehabilitation techniques are important to educate the patient on safety as well as energy conservation and work simplification including performing ADLs seated, utilizing adaptive equipment, and taking frequent rests.<sup>15</sup> The pairing of physical interventions as well as educational techniques provided by PC physical therapists not only decrease patients' physical and emotional symptoms but in turn increase their quality of life.

#### *Patient, Family and Provider Satisfaction*

During PC, patient satisfaction was noted to be improved due to the interacting factors of an ongoing conversation regarding patient preferences of care, establishment of

a clearer plan of care that is updated as needed with avoidance of unwarranted or services. Palliative care has been shown to increase trust in providers, provide for more successful pain management and the added benefit of meeting needs of the “pre-hospice” patient, including the emphasis of patient as surviving and not dying.<sup>16</sup>

According to Krishna et al, “The role of palliative rehabilitation in the preservation of the patient's personhood cannot be underestimated and provides yet further evidence to its critical role in the provision of holistic end-of-life care. The combination of focused palliative rehabilitation that is practiced within the specific confines of a particular patient's clinical, psychological and existential limitations allows for the reconstitution of a patient's self-esteem, dignity and personhood. In our patient's case, her rehabilitation allowed her to reassert her individual personhood.”<sup>17</sup>

Patient satisfaction with physical therapy in palliative care is a topic that has been researched but not as extensively as the physical impacts from palliative rehabilitation. In order for patients to consider physical therapy interventions in palliative care as satisfactory, the role of PT has to be clear within the context of the overall disease treatment. In a series of interviews of palliative care patients, the patients who were satisfied with PT in PC understood the role of the PT treatment in palliation, were motivated to participate, and aimed to maintain their autonomy throughout their care while still receiving the help needed.<sup>18</sup> Patients who were unsatisfied with PT in PC found their treatment to be insufficient or even that they were unsure about why they even were receiving PT. A patient in the study stated, "I suppose they told us physical therapy was available, I don't think the information was especially good"; "...it's so easy for something like this to get forgotten, more or less, since there's so many other things;

you get treatment and doctors' visits and you worry about your future in general.”<sup>18</sup> This exemplifies the importance of informing patients in addition to providing evidence-based care. In addition to patients understanding the care they are receiving, therapists should also provide emotional support, and facilitate patients in maintaining as much independence as possible. These are the factors that have been shown to positively affect patient satisfaction with PT in PC. This article also suggests in-home PC rather than inpatient if possible. Patient satisfaction increases, pain decreases, and independence is improved therefore reducing needed resources for care and an associated reduction in cost to the healthcare system.<sup>19</sup>

### *Quality of Life*

Palliative care has been shown to improve quality of life for patients diagnosed with a variety of conditions across in varying states of disease progression. In a study conducted to evaluate the physical, psychosocial, and overall quality of life of patients receiving normal treatment versus palliative care, it was found that patients who received PC had higher scores for quality of life and mood. The higher quality of life scores were attributed to patient self-advocacy, social support, and less aggressive use of chemotherapy for end-of-life patients.<sup>20</sup>

A study examined the perceptions of individuals diagnosed with COPD in relation to their care and its emphasis on ADLs, emotional functioning, social life, anxiety, and depression. The results showed that these patients were generally dissatisfied with usual treatment. One aspect of this dissatisfaction is that as PC services have traditionally evolved from cancer treatment or hospice services, PC teams may be less likely to be integrated into traditional care. This may result in unmet needs for education and care

opportunities that PC offers. When COPD patients receive PC it has demonstrated to improve emotional symptoms of anxiety, depression, and increases QOL.<sup>14</sup>

In addition to the evidence of PC's impact within inpatient settings, PC appears to have a larger impact on QOL in the home setting. Home-based patients reported less symptoms when reporting that they felt like they had more control over their illness and treatment in their home. Patients felt less dependent and more able to manage symptoms in home while still receiving support from PC provider by improving the ability to adjust to their chronic or life-threatening illness and maintain independence thereby increasing QOL.<sup>21</sup> Palliative care has been demonstrated to improve QOL at end of life through satisfaction with their treatment, maintenance of function, and the ability to keep as much independence and dignity as possible.

Physical therapy has been shown to improve physical and emotional symptoms as well as improve QOL for patients appropriate for palliative care including conditions such as cancer, neurodegenerative disorders, multiple sclerosis, Alzheimer's disease, spinal cord injury/brain injury, respiratory disease/ critical illness, cough/breathlessness, HIV/AIDS, altered mental statuses and psychiatric disorders.<sup>22</sup> The services that physical therapists provide include preventative health and wellness services in early stages of disease, traditional physical therapy interventions, pain management, customized home exercise programs, mitigating common causes of hospital readmissions (falls, weakness, ADL limitations, etc.), interventions to mitigate functional decline, and end of life care including pain management and maintaining quality of life.<sup>1,6,23</sup>

### Hospital Readmissions

Hospital readmissions can be a predictor of future poor health outcomes for patients and are costly for the hospitals, which are then costly for insurance companies and patients.<sup>24,25</sup> A study by These examined patients who received PC consultations as compared to those with similar conditions that did not receive PC services during a hospitalization. It was demonstrated that PC consults significantly decreased the probability of hospital readmissions by 20% as compared to the usual care group.<sup>26</sup> This reduction in readmissions is anticipated to reduce cost per care for insurances such as Medicare.<sup>26</sup>

When considering effective transitions after discharge, best practices include integration of physical therapist services.<sup>27</sup> A 2010 study by Smith et al found that physical therapists make accurate discharge recommendations and when physical therapist recommendations are not taken into account that the risk of unsuccessful discharge or readmission is increased.<sup>28</sup> In order to best facilitate effective care transitions, physical therapists should be consulted in early stages of care transitions in order to best facilitate and coordinate adequate, safe, timely appropriate care transitions or discharge.<sup>28</sup>

## **Discussion**

The review of the literature demonstrated that there continues to be a significant burden of care and disproportionate amount of medical dollars utilized in the care of individuals with a life-threatening illness or chronic disease. The literature also demonstrates there is significant overlap between palliative care concepts and the core role of physical therapist services, including emphasizing symptom management, safety, avoiding unwarranted hospitalizations, mitigating progressive disability and dependence,

and an emphasis on optimizing function and QOL. Despite this growing body of evidence, there continue to be significant opportunities for optimizing the healthcare infrastructure for best facilitating the physical therapists role within palliative care and chronic disease management. Based on past healthcare reform endeavors, the endorsement, support and encouragement from the legislative and governmental sectors can have a strong influence on the manner and direction that a specific healthcare system can provide.

In 2017, the American Physical Therapy Association announced its public policy priorities for 2017 and 2018. There are several areas addressed by this policy agenda that are congruent with the findings of this article and PT within PC. These include addressing barriers to care (access, economic), management of public health epidemics including chronic diseases, endorsing new models of care, a shortage of qualified healthcare providers, and lack of advancement in research and clinical innovation.<sup>29</sup>

#### *Payment and Reimbursement*

Within physical therapy payment philosophy, several administrative mechanisms and payment methodologies may limit the access and longitudinal management of impairments and functional limitations of patients with incurable illness. An example of this arbitrary limitation is the continued implementation of the Medicare Physical Therapy Cap that places a cap on the amount of physical therapy a patient can have. Outpatient physical therapy services within Medicare Part B have a cap of \$1,960 (combined with speech language pathology) and a separate \$1,960 cap allotment for occupational therapy. As the review of the literature demonstrates that with conditions such as those treated within PC have progressive functional limitations with periods of

stability or recovery, this arbitrary cap (or the public and provider's perceptions of it) may prevent patients from being able to access physical therapist services in order to prevent a hospitalization, a fall, or other uncontrolled symptom. Once the Medicare payment cap is reached, if a patient needs supplemental therapy services that surpass the threshold, there are additional administrative barriers, delays, or out-of-pocket costs that hinder optimal, efficient care. This is an issue for patients who cannot afford supplemental insurances or do not have the ability to pay out of pocket for PT services therefore the patient will not be able to receive PT services PC services after they have reached the cap.

The APTA proposed that it is necessary to find alternative payment models to procure physical therapy services.<sup>29</sup> This solution is especially important in PC as these patients have long term costs and if their healthcare needs are not met, it results in a larger cost for all stakeholders later on in the disease process. The APTA also proposed mitigation of excessive administrative barriers such as the overregulation of PT services under Medicare by enacting legislation that would allow physical therapists to privately contract with Medicare beneficiaries therefore allowing patients to receive any additional therapy services they may need without being restricted by Medicare coverage.<sup>29</sup>

Finally, related to payment and reimbursement is the pervasiveness of the misconception that a Medicare patient is required to demonstrate improvement in their function to continue to receive skilled therapy services. The US Federal District Court settlement entitled *Jimmo Vs Sebelius* clarified that if skilled services are needed to maintain or slow the decline of a chronic, degenerative, or life threatening illness, that services cannot be denied based on the absence of improvement.<sup>30</sup> In 2016, the American

Physical Therapy Association (APTA) publicly concurred with the opinion of the Center for Medicare Advocacy in emphasizing that the Center for Medicare and Medicaid Services' (CMS) public awareness campaigns of this policy clarification were not adequate and that CMS must do more regarding provider and consumer awareness of this new policy in order to ensure necessary access to these services.<sup>31</sup>

### *Access and Referrals*

As multiple articles had outlined, early, preventative access to care services are necessary to minimize or control exacerbations, health crises, or other issues that may increase medical costs and reduce quality of life.<sup>6,9,11,16</sup> In 2015, the State of Michigan legislature passed direct consumer access to physical therapist services with an additional provision for unlimited visits for prevention and wellness services. As Michigan was the last state in the nation to achieve this milestone, all 50 states and the District of Columbia have a provision for allowing a consumer to access physical therapist services without a prescription. Despite this nationwide regulatory change, many insurances, including Medicare, do not provide payment for physical therapy services rendered utilizing currently written direct consumer access laws. Evidence demonstrated that states that have direct consumer access do not have higher utilization or payment for physical therapist services.<sup>32</sup>

In addition to the evidence that direct consumer access to PT services does not increase healthcare costs, it may often result in an unnecessary trip to the physician when therapy services are warranted which increases care burden and cost to the patient and insurance company or has the potential to discourage the patient from accessing needed care and causing future healthcare issues that were not addressed in a timely manner.

## *Education*

Palliative Care is a relatively new field whose programs have rapidly increased by 138% since 2000.<sup>5</sup> The services have been expanding from hospital settings to outpatient facilities such as cancer centers and emergency departments. A study conducted including eight hospitals and their palliative care programs demonstrated lower cost per day of stay for palliative care patients and fewer readmissions.<sup>8</sup> Although there is expansion in the field and increasing proliferation of PC services, this expansion has resulted in a shortage of qualified PC providers, including physical therapists.

As palliative care is a relatively new concept within the United States healthcare system, the emerging role, impact and practice tenets have not fully been integrated within medical, nursing or other healthcare professions. As palliative care had traditionally evolved from the hospice approach within the United States, those professions that were more traditionally integrated into the hospice care philosophy have a relatively larger presence of HPC education available at the entry-level and post-professional realms, however even among medical professionals, there is a lack of consistent education related to this topic.<sup>33</sup> As physical therapists are not commonly and consistently employed during the late-stage care of terminally ill individuals, the entry level and post-professional education and training for these providers is minimal. When considering public funding for physical therapist programs and their associated accreditation standards, focus and emphasis on chronic disease management or PT care for those with a life-threatening illness would be highly beneficial to further proliferate the potential impact of physical therapist services. In addition, when public funding or involvement (i.e. National Institutes of Health, Centers for Disease Control, Institute of

Medicine) is utilized for postgraduate or professional education, seminars, conferences, or task forces related to chronic disease, chronic pain, or life-threatening illness, these organizations are encouraged to seek out and solicit involvement and participation of physical therapists in order to provide a holistic, comprehensive, integrated approach to palliative care services. In addition to the optimization of public policy in this area, increasing the systemic awareness of the role of physical therapist services within palliative care will assist all palliative care providers to better understand and utilize the role of the physical therapist in PC services. Although PC has experienced a sharp incline in the last decade, not all healthcare providers have a comprehensive understanding of the basic principles of PC.<sup>33</sup>

According to the APTA, “Patients, especially in underserved areas, are being negatively impacted by a shortage of health care providers who can serve as an entry point to care.”<sup>29</sup> They propose supporting programs such as federal student loan repayment for physical therapists. This article proposes that physical therapists should be trained in PC at the entry-level as well as provide advanced specialty opportunities in order to create more availability of PT/PC health care providers for the underserved population of the chronically ill.

### *Research*

In the review of the literature, there was a significant gap identified between the identified needs between declared palliative care research agendas and the physical therapy literature as it relates to chronic disease, serious illness and end-of-life care. Recent physical therapist research efforts were considered to include a focus such as the effects of PT interventions in patients with chronic illnesses, evaluate methods to provide

patient/client care and cost effective care, and to “determine disparities in the access to and provision of physical therapy and their impact on outcomes.”<sup>34</sup>

The APTA notes that there is a “lack of advancement in research, clinical innovation, and use of real time data,” a finding which is congruent with the state of research in PT within PC.<sup>29</sup> The proposed solutions include investing in public funding to further establish the value of physical therapy in order to demonstrate cost-efficient, effective care within public payment programs such as Medicare and Medicaid.<sup>29</sup> Although recognized as an essential benefit for healthcare plans, there is opportunity for further integration of PT within PC programs, which will provide chronically ill individuals with the physical therapist services they need.

In light of the proliferation of PC services and the growing body of evidence of these patients’ functional limitations and participation restrictions, there is an increasing demand for evidence of the effectiveness of physical therapy services. In addition to specific studies of PT within PC, the evidence for exercise, diet and nutrition management, injury prevention, caregiver training and support, and home safety interventions (all services that physical therapists provide) appear to demonstrate effectiveness with this patient population however the quality and rigor of these studies is inconsistent.<sup>17,34</sup> Based on these findings and in light of the growing elderly population and the economic impact of an aging populace, it is recommended that agencies that consider developing or updating research agendas to continue to include physical therapy’s role within palliative care. In 2010, it was found that 30% of cancer deaths were attributed to poor nutrition and lack of evidence that physical therapy services are palliation are necessary for the maintenance of patient function as well as the prevention

of premature deaths for the chronically ill.<sup>28</sup> In addition, based on these findings, public entities that are providing research funds, grants, or develop policy or guidelines for public institutions are encouraged to recommend integration of physical therapy during care of this patient population.

There is a gap in the literature related to PC and PT contribute to the management of patients with less commonly treated disorders such as COPD or autoimmune disease. Lack of recognition of the importance of PT/PC for patients with chronic illnesses other than cancer may be a barrier for the consultation of PC or PT to a patient who may benefit from these services. Increased awareness and education for health care providers to recognize patients who could benefit from PC treatment needs to be improved. This additional research may assist healthcare providers to recognize when certain patients would benefit from PC and PT.<sup>4</sup>

## **Conclusion**

Management of chronic disease and end-stage life threatening illness taxes the healthcare system, providers and impacts the quality of remaining life of those diagnosed. The increased growth and proliferation of palliative care programs have the impact to mitigate the negative effects of this disease process. Physical therapists have significant opportunity to provide a positive impact on the sustainable wellness and quality of life of those diagnosed with a chronic disease. As the role of the physical therapist within PC is relatively new, current public policy initiatives are not well suited to leverage and foster integration of PT within PC. Areas that would benefit from optimization of refinement of public policy includes modernization of regulations and focus efforts on payment, access, awareness, education and public research funding.

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Figure 1. Public Policy Priorities and Impact

