



# **EXPLORING PHYSICAL THERAPY AND REHABILITATION IN LONG TERM CARE.**

**STUDENT NAME: Poonam Deshpande.**

**STUDENT NUMBER: S 2009016**

**COURSE NAME: PhD (Doctor of Philosophy in Physical Medicine and  
Rehabilitation)**

**DATE OF SUBMISSION: 13<sup>th</sup> May 2021.**

## **ACKNOWLEDGEMENTS**

I wish to acknowledge the following people who both advised and supported me as I prepared this thesis Dr Ahmad Al Khayer and Mabose Mashigo. This thesis would not have been possible without their generosity of ideas and guidance. I also wish to acknowledge my work place the Long Term Care Unit for giving me the pricing information in order for me to complete this research. I also want to thank Dr. Pourgol for sharing us his precious experiences and advise in this course, also to National University of Medical Sciences teachers and faculty stuff. And lastly, thanks to my parents, husband and my beloved daughter for always offering their time, love and support.

## **TABLE OF CONTENTS**

ACKNOWLEDGEMENT.....	2
TABLE OF CONTENT.....	3
INTRODUCTION .....	4
REHABILITATION: A MULTIDISCIPLINARY APPROACH.....	5
ABSTRACT.....	6
LONG TERM CARE AND REHABILITATION.....	8
LEVELS OF REHABILITATION .....	9
LONG TERM CARE AND REHABILITATION IN INTERNATIONAL PERSPECTIVE.....	12
SUMMARY.....	13
CONCLUSION.....	14
REFERENCES.....	15

# **INTRODUCTION**

Rehabilitation and long-term care are staples in the lives of disabled or ill people around the world; patients join these programs for several reasons, including sudden injury, trauma, mental disorders, or old age. Rehabilitation and long-term medical care apply to patients at different stages in the recovery process.

Long term care (LTC) is when a person, particularly one who is physically or mentally weak, requires constant assistance when performing regular acts, such as eating, drinking, and getting dressed. They may experience such problems even after successfully completing rehab. While for the most part, they are stable, they will still need help in some things.

Long term care is generally provided by a trained professional, like a nurse, who can help them with personal care and activities of daily living. Apart from people who have mild trouble doing things, those with permanent illness or disability can seek skilled care from a home health care provider. There are also many long-term care insurance policies in place, that covers those needed rehabilitation services. Long term care is generally required for people who have gone through rehab and require care. Such people, although much better than they were before, would benefit from nursing care and related support services. Skilled nursing goes a long way; these people need assistance, or else they won't be able to do basic things, sometimes even as simple as feeding themselves.

Physical Rehabilitation is defined as:

*Promoting optimal mobility, physical activity and overall health and wellness; Preventing disease, injury, and disability; Managing acute and chronic conditions, activity limitations, and participation restrictions; Improving and maintaining optimal functional independence and physical performance; Rehabilitating injury and the effects of disease or disability with therapeutic exercise programs and other interventions; and Educating and planning maintenance and support programs to prevent re-occurrence, re-injury or functional decline.*  
([http://www.physiotherapy.ca/getmedia/e3f53048-d8e0-416b-9c9d-38277c0e6643/DoPEN\(final\).pdf.aspx](http://www.physiotherapy.ca/getmedia/e3f53048-d8e0-416b-9c9d-38277c0e6643/DoPEN(final).pdf.aspx))

## **Rehabilitation Team: A Multidisciplinary Approach.**

Rehabilitation, also known as rehab, is a process through which physically or mentally compromised people regain their health and can begin to function as regular members of society once again.

### **Types of Rehabilitation**

**Rehabilitation falls into three primary categories:**

#### **Occupational Rehabilitation Therapy**

This is the first form of rehabilitation therapy and aims to help injured people regain skills that let them carry out regular daily activities, particularly those associated with the patient's job. Occupational therapists are responsible for this; they are trained professionals who actively work with patients, training them on how to perform simple and complex tasks.

#### **Physical Rehabilitation Therapy**

Physical therapy is when a practiced professional, called a physiotherapist, provides movement therapy to patients who have trouble moving around on their own. A physiotherapist can help people walk again, eat by themselves, and do other simple things related to daily life. Physical therapy centers on strengthening depleted muscles, improving cognition, and enabling independent activity.

#### **Speech Rehabilitation Therapy**

Speech rehab therapy is for those patients who have, due to injury or trauma, lost their ability to speak fluently. A qualified professional called a speech therapist can help such individuals regain their speaking ability by regularly practicing drills with them and pushing them to do their best. Medication may or may not be involved; however, for the most part, regaining one's speech depends upon the amount of time spent practicing with a professional speech therapy practitioner.

## **Abstract**

**Objective:** The purpose of this pilot was to determine whether a strength and flexibility program in frail long-term care facility (LTC) residents would result in improved function.

**Design:** A prospective, randomized, controlled, semi crossover trial was designed with participants assigned either to group exercise (EX) or recreational therapy (C). In the EX-group, the intervention continued for 1 year. In the C group, recreation continued for 6 months; these controls were then crossed over to the same exercise intervention as the EX-group and followed for an additional 6 months. Functional outcomes were measured at baseline and 3, 6, 9, and 12 months for both groups.

**Setting:** A LTC facility, which included both assisted living (AL) and nursing home (NH) residents.

**Participants:** Twenty frail residents aged 75 to 99 years at one LTC facility.

**Intervention:** After random group assignment, the EX-group met 1 hour three times per week. An exercise physiologist and LTC staff conducted sessions which included seated range of motion (ROM) exercises and strength training using simple equipment such as elastic resistance bands (TheraBand's) and soft weights. The C group met three times per week and participated in activities such as painting during the first 6 months, before crossing over to exercise.

**Measurements and methods:** Objective measures of physical and cognitive function were obtained at baseline and 3, 6, 9, and 12 months using the timed get-up-and-go test (TUG), Berg balance scale, physical performance test (PPT), and mini-mental status exam (MMSE). Because we were interested in the impact of exercise on multiple endpoints and to protect the type I error rate, a global hypothesis test was used.

**Results:** There was a significant overall impact across the four measures of the exercise intervention ( $P = 0.013$ ). Exercise benefits as indicated by the difference between exercise and control conditions showed exercise decreased TUG by 18 seconds, which represents an effect size (in standard deviation units) of 0.50, increased PPT scores by 1.3, with effect size = 0.40, increased Berg scores by 4.8, with effect size of 0.32, and increased MMSE by 3.1, with effect size = 0.54. Except for the Berg, 90% confidence intervals on these exercise effects excluded 0.

**Conclusion:** Frail elderly in a LTC facility were able to participate and benefit from a strength training program. The program was delivered with low-cost equipment by an exercise physiologist and LTC staff. The advantage of such a program is that it provides recreational and therapeutic benefit.



## **Long term care and rehabilitation**

Although rehabilitation is considered an important component of long-term care, few studies have looked at the factors associated with the provision of rehabilitation in this setting. The authors examined one State's skilled nursing homes to gain information on their rehabilitation practices. Data for this study came from a mail survey and from the licensing applications filed with the State Division of Facility Services. Sixty-nine percent of the State's nursing homes responded to the survey. All reported that they provided specialized physical therapy, occupational therapy, or speech therapy, or all three, but the numbers of patients reported to be enrolled in such therapies on a daily basis varied from 0 to 64 percent of the facility's census. Factors positively associated with the provision of rehabilitation included the number of full-time registered nurses on the staff and the belief of the facility administrator that the purpose of rehabilitation is to restore function so that patients can be discharged. Facilities that employed their own therapists rather than contract for these services reported significantly more patients enrolled in daily therapies. And a significant positive correlation was observed between the provision of daily rehabilitation services and discharge of patients in those facilities that hired their own rehabilitation staff. These findings suggest that the provision of rehabilitation in nursing homes has different goals and outcomes and that there are facilities with identifiable characteristics that appear more successful in returning patients to their homes. Long term care is generally required for people who have gone through rehab and require care. Such people, although much better than they were before, would benefit from nursing care and related support services. Skilled nursing goes a long way; these people need assistance, or else they won't be able to do basic things, sometimes even as simple as feeding themselves.

Rehabilitation, on the other hand, is when a person who needs professional support is admitted into a center, like a rehabilitation hospital, where they receive care that will help them recover. This care is significantly different from that offered by a long-term care facility.

Where long term care offers people help with performing simple chores which are a part of regular daily life, like taking medicines or bathing, rehab centers provide services like skilled nursing as well as physiotherapy, hydrotherapy, and occupational therapy. Both are associated with healthcare but have a solution for problems faced at different stages of the recovery process.



## **LEVELS OF REHABILITATION IN LONG TERM CARE UNITS.**

- Comprehensive Integrated Inpatient Rehabilitation Program (CIIRP): A Comprehensive Integrated Inpatient Rehabilitation Program is a program of coordinated and integrated medical and rehabilitation services that is provided 24 hours a day and endorses the active participation and preferences of the person served throughout the entire program. The preadmission assessment of the person served determines the program and setting that will best meet the needs of the person served. The person served, in collaboration with the interdisciplinary team members, identifies and addresses medical and rehabilitation needs. The individual resource needs and predicted outcomes of the person served drive the appropriate use of the rehabilitation continuum of services, the provision of care, the composition of the interdisciplinary team, and discharge to the community of choice.

- Long-term acute care (LTAC): LTACs are focused on patients with serious medical problems that require intense, specialized treatment for several weeks. Such patients often transfer from intensive-care units (ICUs) in traditional hospitals. It would not be unusual for an LTAC patient to be on a ventilator or need other life-support assistance. LTACs are not the same as nursing homes. Patients at LTACs usually need more intensive medical care than a nursing home can provide. They also tend to stay for a shorter period of time.

Conditions and treatments include

- Amputee
- Brain Injury
- Burn Rehabilitation
- Cancer
- Complex Medical Rehabilitation
- Disorders of Consciousness
- Musculoskeletal Rehabilitation
- Neurological Rehabilitation
- Parkinson's Disease

- Prosthetics/Orthotics
- Psychiatry/Psychology
- Pulmonary
- Stroke
- Therapeutic Recreation
- Ventilator Weaning
- Vision Rehabilitation

• **Sub-acute Rehabilitation (SAR):** Subacute rehabilitation is a form of inpatient care for people suffering from severe illnesses and injuries. Subacute rehab provides a number of benefits and services to their patients such as balance rehab, improving walking, leg function, cardio vascular health, and strength regain.

The rehabilitation is great for people who have experienced an injury and are looking to improve their independence in moving and function in everyday tasks. It could also benefit those who have suffered trauma in their joints such as hips, knees, lower back, and shoulders. Moreover, subacute rehab is a great way to improve internal health issues such as cardiac stroke, amputation and spinal cord injuries.

• **Nursing Home Custodial Care:** Custodial care is non-medical care that helps individuals with their activities of daily living (ADL), such as eating and bathing. Custodial care for an individual is generally recommended by authorized medical personnel, but providers of custodial care are not required to be medical professionals. Some people with certain medical, physical, or mental conditions are unable to perform activities of daily living on their own and require assistance. These activities, such as eating, using the toilet, bathing, getting dressed or out of bed, moving around, etc. can reasonably and safely be provided by caregivers with no medical or nursing training. Beneficiaries who are in the care of non-medical aides are said to be in custodial care.

• **Home Care:** At its basic level, "home health care" means exactly what it sounds like – medical care provided in a patient's home. ... Home health care can also include skilled, non-medical care, such as medical social services or assistance with daily living from a highly qualified home health aide. Home health care includes skilled nursing care, as well as other skilled care services, like physical and occupational therapy, speech- language therapy, and medical social services. ... The home health staff provides and helps coordinate the care and/or therapy your doctor orders.

• **Outpatient therapy (OP):** Outpatient therapy program will begin with an overall assessment of your treatment needs. You will then receive a treatment plan which will include a schedule of regular appointments with the rehabilitation professionals who best suit your needs. Your appointments might be once every one to five days, and will usually last between 30 minutes to an hour. You may be scheduled to see more than one therapist. Outpatient therapy treatment will

also include exercises and activities that you will be expected to complete at home between appointments.

- **Comprehensive Outpatient Rehab Facility (CORF):** A Comprehensive Outpatient Rehabilitation Facility (CORF) is a medical facility that provides outpatient diagnostic, therapeutic, and restorative services for the rehabilitation of your injury, disability, or illness. CORF care is commonly known as outpatient rehabilitation care.

## **LONG TERM CARE AND REHABILITATION IN** **INTERNATIONAL PERSPECTIVE**

Cross-national variation in use rates of nonmedical institutions is greater than that of medically oriented facilities. Population characteristics—that is, older, more female elderly populations—account for only part of the higher institutionalization rates in some countries. Although institutionalization rates are generally lower in countries where public financing for institutional long-term care is available only on a means-tested basis, it appears that the relationship between government financing and institutional use rates is mediated by bed-supply policy. Tight bed-supply controls can curb the use of long-term care facilities generously financed by national health insurance, and use rates of more generously supplied facilities are much higher even where public financing is means-tested. Generous public financing for home care is more often associated with countries also having above-average institutionalization rates— suggesting that both are related to greater political willingness to spend public monies on long-term care services across the board.

The lack of a systematic association between generous home-care financing and below-average institutional use indicates that policy initiatives aiming at reducing institutional use through increased public funding of home care services have not been particularly successful. There is some evidence, however, from the Scandinavian countries, that it is possible to use home care in combination with sheltered housing to reduce the use rates of nonmedical institutions, particularly where use rates of such facilities have been especially high.

## **SUMMARY**

The long-term care (LTC) team of today is significantly different than it was a few years ago, when all of those working in a facility existed in silos instead of working as a team. Today's LTC team is far more extensive and integrated than ever before, now that skilled-nursing facilities (SNFs) are accountable for increased levels of frailty and outcomes.

As the average lifespan continues to rise due to medical and technological advancements, more older adults are living longer with complex health needs that produce significant disability and demand specialized care.<sup>2</sup> Residents of SNFs typically have multiple chronic conditions and take an average of 8 to 10 medications per day; these patients require health care providers who possess the expertise and skills to appropriately care for them and work in a team to produce better health-related outcomes.<sup>1</sup>

## **CONCLUSION**

Despite uncertainties and complexities associated with changes in the health care systems and policies, one thing seems certain: Coordination and integration of acute and long-term care will be an increasingly important issue for health care providers, policy makers, and patients. With the older population experiencing multiple chronic health problems, it is becoming more important to recognize that acute and long-term care constitutes but one episode of care. As key acute care institutions and important long-term care providers, hospitals will continue to be an essential part in the continuum of care, although whether they will assume the leadership role in coordinating various services in the community remains to be seen. Some have argued against the idea, fearing that giving hospitals a greater role in post-acute care may "medicalize" those services and increase their cost. Others contend that hospitals' provision of post-acute care does not guarantee smooth transitions between acute and long-term care. Past debate on the role of hospitals in long-term care tended to ignore the heterogeneity of hospitals and their surrounding environments. Our finding that hospital provision of long-term care varies across hospitals and communities suggests that hospitals' role in service integration may depend upon hospitals' organizational and environmental characteristics.

## **REFERENCES**

1. Living arrangements of seniors, Census in brief. 98-312-X2011003, 2011;1–8.
2. CLHIA. *Report on long-term care policy*. 2012;1–21.
3. Hirdes JP, Mitchell L, Maxwell CJ et al. . Beyond the ‘iron lungs of gerontology’: using evidence to shape the future of nursing homes in Canada. *Can J Aging* 2011;30:371–90. 10.1017/S0714980811000304 [[PubMed](#)] [[CrossRef](#)] [[Google Scholar](#)]
4. Doupe M, St John P, Chateau D et al. . Profiling the multidimensional needs of new nursing home residents: evidence to support planning. *J Am Med Dir Assoc* 2012;13:487.e9–17. 10.1016/j.jamda.2012.02.005 [[PubMed](#)] [[CrossRef](#)] [[Google Scholar](#)]
5. Canadian Physiotherapy Association. Description of physiotherapy in Canada 2012.
6. Crocker T, Forster A, Young J et al. . Physical rehabilitation for older people in long-term care. *Cochrane Database Syst Rev* 2013;2:CD004294 10.1002/14651858.CD004294 [[PubMed](#)] [[CrossRef](#)] [[Google Scholar](#)]
7. Donabedian A. Evaluating the quality of medical care: part 2. *Milbank Mem Fund Q* 1966;11:166–206. 10.2307/3348969 [[PubMed](#)] [[CrossRef](#)] [[Google Scholar](#)]
8. Norton PG, Murray M, Doupe MB et al. . Facility versus unit level reporting of quality indicators in nursing homes when performance monitoring is the goal. *BMJ Open* 2014;4:e004488 10.1136/bmjopen-2013-004488 [[PMC free article](#)] [[PubMed](#)] [[CrossRef](#)] [[Google Scholar](#)]
9. Berg K, Mor V, Morris J et al. . Identification and evaluation of existing nursing homes quality indicators. *Health Care Financ Rev* 2002;23:19–36. [[PMC free article](#)] [[PubMed](#)] [[Google Scholar](#)]
10. Jones RN, Hirdes JP, Poss JW et al. . Adjustment of nursing home quality indicators. *BMC Health Serv Res* 2010;10 10.1186/1472-6963-10-96 [[PMC free article](#)] [[PubMed](#)] [[CrossRef](#)] [[Google Scholar](#)]
11. Health Quality Ontario. *Long-term care public reporting website technical report table*. <http://www.hqontario.ca/public-reporting/long-term-care/information-about-quality-indicators/ltc-technical-report-table> (accessed 20 Oct 2014).
12. Berg K, Sherwood S, Murphy K et al. . Rehabilitation in nursing homes: a cross-national comparison of recipients. *Age Ageing* 1997;26(Suppl. 2):37–42. 10.1093/ageing/26.suppl\_2.37 [[PubMed](#)] [[CrossRef](#)] [[Google Scholar](#)]
13. Leemrijse CJ, De Boer ME, Van Den Ende CHM et al. . Factors associated with physiotherapy provision in a population of elderly nursing home residents; a cross sectional study. *BMC Geriatr* 2007;7 10.1186/1471-2318-7-7 [[PMC free article](#)] [[PubMed](#)] [[CrossRef](#)] [[Google Scholar](#)]
14. Rolland Y, Pillard F, Klapouszczak A et al. . Exercise program for nursing home residents with Alzheimer's disease: a 1-year randomized, controlled trial. *J Am Geriatr Soc* 2007;55:158–65. 10.1111/j.1532-5415.2007.01035.x [[PubMed](#)] [[CrossRef](#)] [[Google Scholar](#)]

15. Roach KE, Tappen RM, Kirk-Sanchez N et al. . A randomized controlled trial of an activity specific exercise program for individuals with alzheimer disease in long-term care settings. *J Geriatr Phys Ther* 2011;34:50–6. 10.1519/JPT.0b013e31820aab9c [[PMC free article](#)] [[PubMed](#)] [[CrossRef](#)] [[Google Scholar](#)]
16. Christofolletti G, Oliani MM, Gobbi S et al. . A controlled clinical trial on the effects of motor intervention on balance and cognition in institutionalized elderly patients with dementia. *Clin Rehabil* 2008;22:618–26. 10.1177/0269215507086239 [[PubMed](#)] [[CrossRef](#)] [[Google Scholar](#)]
17. Ontario Ministry of Health and Long-Term Care. Policy for the Operation of Short-Stay Beds Under the Long-Term Care Homes Act 2007.
18. Ontario Ministry of Health and Long-term Care. Frequently asked questions for physiotherapists 2013. <http://www.health.gov.on.ca/en/pro/programs/physio/faq.aspx> (accessed 19 Jun 2014).
19. Kochersberger G, Hielema F, Westlund R. Rehabilitation in the nursing home: how much, why, and with what results. *Public Health Rep* 1994;109:372–6. [[PMC free article](#)] [[PubMed](#)] [[Google Scholar](#)]
20. Arksey H, O'Malley L. Scoping studies: towards a methodological framework. *Int J Soc Res Methodol* 2005;8:19–32. 10.1080/1364557032000119616 [[CrossRef](#)] [[Google Scholar](#)]
21. Levac D, Colquhoun H, O'Brien KK. Scoping studies: advancing the methodology. *Implement Sci* 2010;5:69 10.1186/1748-5908-5-69 [[PMC free article](#)] [[PubMed](#)] [[CrossRef](#)] [[Google Scholar](#)]
22. Health Canada. Long-term facilities-based care. <http://www.hc-sc.gc.ca/hcs-sss/home-domicile/longdur/index-eng.php> (accessed 8 Dec 2014). [[Google Scholar](#)]
23. Mazurek Melnyk B, Fineout-Overholt E Making the case for evidence-based practice and cultivating a spirit of inquiry. In: Fineout-Overholt E, ed. *Evidence-based practice in nursing and health care: a guide to best practice*. LWW, 2005:10. [[Google Scholar](#)]
24. Delbecq A, Van de Ven A, Gustafson D eds. *Group techniques for program planning: a guide to nominal group and Delphi processes*. Wisconsin: Green Briar Press, 1986. [[Google Scholar](#)]
25. Wainwright D, Boichat C, McCracken LM. Using the nominal group technique to engage people with chronic pain in health service development. *Int J Health Plann Manage* 2014;29:52–69. 10.1002/hpm.2163 [[PubMed](#)] [[CrossRef](#)] [[Google Scholar](#)]