

Benefits of Physical Therapy in Aging Population

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The word fall does not usually instill fear in the hearts of many people. But it should if the statistics revealed are to go by. Falls are too frequent in the elderly population and pose grave dangers to those above the age of 65 years. Falls among the older people constitute a significant health crisis in developed nations especially in the USA with enormous medical and economic consequences. Falls devastate not only the patient and the economy but also the dependents of the patients. The older adults face the highest mortality rates and are rendered disabled and dysfunctional and led to depression because of falls.

Furthermore, these people are experiencing post-fall syndrome where in many cases they get traumatized and cease walking without the help of relatives (Lee, Lee, & Khang, 2013). On top of that falls also reduce the quality of life for the aging and presents them with difficulties in performing their everyday duties. The significance of this study is to indicate the benefits of physical therapy in curbing this mayhem causing disabilities to older people in society.

Coincidental injuries are the major causes of death among older people and is ranked as seventh leading cause. Statistically, one in four US citizens above the age of 65 report cases of falling annually and the department tasked with emergencies arising from falls reports an estimated figure of 3 million yearly. In 2016 alone, a total of over 29660 elderly citizen fatalities were accounted. This is in comparison to about 18330 deaths that were reported in 2007. Moreover, the fall-related department reported that trends in deaths were majorly influenced by various factors such as demographic factors, sex, and ethnicity or race. According to Lee, Lee and Khang (2013), "In the year 2000, falls costs the US healthcare system more than \$19 billion, a figure that is projected to rise to about \$54.9 billion by 2020" (p. 37). With the death rates projected at a positive deviation of 3% between 2007 to 2016, there is need for healthcare providers to address the issue of fall and fall-related deaths because falls are preventable and are continually increasing annually to deprive relatives of their loved ones (Burns, & Kakara, 2018).

The fear of falling is essentially a venerable syndrome that reduces bodily coordination in an already weak and frail patient. It is a characteristic behavior of humans to avert an experience that causes them discomfort, and this causes the elderly to limit themselves in performing their chores for fear of falling as a natural response as they tend to become weaker, frail, and less agile. This is usually catalyzed by the fact that being already old age, their bones are weak and cannot sustain pressure caused when they fall. The experience of falling leads to an inactive lifestyle and physical disability, which later predispose them to fall. With these encounters of falling, the seniors need to be encouraged to live a healthy lifestyle that incorporates exercises to strengthen the bones thus averting future cases of falling (Tinetti, & Ginter, 1988).

The main reason that patients fall is that at old age, muscles of the elderly become stiffened, decrease in strength, and impaired neurologic feedback become affected because the muscle coordination is poor thus contraction and the right muscle strength is reduced. With these hindrances in mind, the patients rarely elude falling, and the most common risk factor for reoccurring falls are the preceding falls which weakens the muscles and joints, causing gait and balance impairments. These incidences of falls and falls related fatalities has seen the US Department of health implement various and diverse mechanisms to curb this menace. These programs include community-based fall prevention guides for the aging. These interventions seek to educate the elderly on the best ways to prevent themselves from falling and the signs and symptoms of a fragile body (Tinetti, & Ginter, 1988). Although these programs range from single intervention to comprehensive multifactorial approaches, the US health department still encourages the elderly to exercise caution whenever they are walking to avoid incidences of injuries caused by falling.

For intervention approaches to work accurately, it is crucial that patients familiarize with the causes of falls. The leading causes that result in falling can be categorized into intrinsic and extrinsic factors. It is also important to note that because of old age, aging people are regularly under medication and in most cases, the side effects of the drugs make their body coordination to be affected and thus in most cases result in falling. Furthermore, in aging patients, a fall may be a sign of an acute sickness that needs urgent intervention. Intrinsic

factors are the common physical and psychological changes related to aging which alters the functionality of the body. This is the reason older people are prone to falls when they sick. Often, nocturia is associated with falling among the elderly due to the person experiencing challenges walking and, in most cases, standing (Sherrington, & Tiedemann, 2015). Of significance to older people also is to maintain the optimum levels of dehydration and metabolic conditions as these are also the common factors which precipitate falling. In essence, it is medication in older people that is the leading cause for falling and related injuries.

Moreover, the extrinsic factors account for 33-50% of the falls reported in the US. These are the environmental factors that affect the old people due to reduced eyesight capabilities like, low chairs, slippery floors, and inadequate lighting. It is projected that most of the accidents occur indoors often in the bathrooms. With steps being the primary cause of outdoor falls, it is vital to construct rails along steps to support the older people. When falls occur, the first step which the geriatric specialists should look into is the evaluation of the patient's previous records of falling to ascertain the seriousness of the injury that might have occurred. Physical examination is essential to aid in revealing the degree of the injury. The most reliable indicator of falls among community dwellers is the history of the previous falls. This is probably the reason why falls might recur and by looking at the first instance physiotherapists can advise the patient accordingly (Sherrington, & Tiedemann, 2015).

Physical therapy involves many interventions aimed at helping the patient of fall recover entirely such as exercises intervention and the multifactorial interventions. In this section, the essay will cover exercise intervention as a means of physical therapy to aid fall patients. There is emerging proves for the usefulness of physical exercises for the prevention of falls in community-dwelling aging citizens. Physical exercises are the best choice for as a fall prevention intervention. This is because injured muscle and poor postural control are acknowledged to intensify the risk of falling to an amendable percentage. The role of exercise as an intervention in older adults experiencing fall injuries is indispensable (Rubenstein, 2006). Exercises rejuvenate muscles thus making the patient recover quickly from injuries sustained during fall. Evidence advocates that walking as an intervention for those at high risk of falls should not be encouraged at first stages of physical therapy, but it is considered the best and the safest form of aerobic exercise for the aging population. Individuals should be subjected to at least 30 minutes' walk each session as a routine.

Practical approaches to aid the elderly have been documented to portray the benefits of therapeutic interventions in exercises such as balance, strength, and endurance training. Physical therapies intensify the workouts to strengthen the quadriceps of patients to boost the recovery period of the patients. Exercise programs are to improve the strength of the patients and are diverse. Such exercises variations include targeted muscle groups which should help the patients to recover in the shortest time possible. For physical therapies to be efficient, the exercise programs should vary from a minimum of nine weeks to about one year. Other exercise programs known to be effective have been short-term, usually lasting within short periods of about one year or less depending on the seriousness of the injury after falling. Although physical therapy enhances the long-term healing of the injury, there should be consistent adherence to short-term methods (Rubenstein, 2006).

Physical therapy is an effective method for older people since it helps them avert future falls since exercises carried out increases strength as well as balance over and above the critical threshold desirable for chores such as rising from a chair. The patients show progress when they are subjected to physical therapy for a set period. The type of exercise rendered also matter a lot for a successful program to be implemented. Gait, balance and functional training should be the most dominant exercises as these are the known activities to heal the muscles and the joints within a short period (Shier, Trieu, & Ganz, 2016).

Physical therapists play an imperative role as they work in a variety of settings to restore and improve the mobility of patients. They not only strive to lessen the pain experienced by the elderly but also reduce the need for long-term medication for the elderly (Shier, Trieu, & Ganz, 2016). In countries growing the aging population, therapists play an important role in guiding through exercises fall patients to gain stability and balance. They play a critical role in directing and instructing patients on the best alternatives to recovery.

References

- [1]. Lee, A., Lee, K. W., & Khang, P. (2013). Preventing falls in the geriatric population. *The Permanente Journal*, 17(4), 37-9.
- [2]. Burns, E., & Kakara, R. (2018). Deaths from Falls Among Persons Aged ≥ 65 Years - United States, 2007-2016. *MMWR. Morbidity and mortality weekly report*, 67(18), 509-514. <https://doi.org/10.15585/mmwr.mm6718a1>
- [3]. Tinetti, M. E., Speechley, M., & Ginter, S. F. (1988). Risk Factors for Falls among Elderly Persons Living in the Community. *New England Journal of Medicine*, 319(26), 1701-1707. <https://doi.org/10.1056/nejm198812293192604>
- [4]. Sherrington, C., & Tiedemann, A. (2015). Physiotherapy in the prevention of falls in older people. *Journal of Physiotherapy*, 61(2), 54-60. <https://doi.org/10.1016/j.jphys.2015.02.011>
- [5]. Rubenstein, L. Z. (2006). Falls in older people: epidemiology, risk factors and strategies for prevention. *Age and Ageing*, 35(suppl_2), ii37-ii41. <https://doi.org/10.1093/ageing/af1084>
- [6]. Shier, V., Trieu, E., & Ganz, D. A. (2016). Implementing exercise programs to prevent falls: systematic descriptive review. *Injury epidemiology*, 3(1), 16. <https://doi.org/10.1186/s40621-016-0081-8>