

Association Between Demographic Profile and Functional Mobility to the Quality of Life of Geriatric Patients Receiving Physical Therapy Interventions in Baybay City, Biliran, and Tacloban City

**Ms. Karyl Elaine Azul Montes¹, Ms. Raven Amante Palmiano²,
Ms. Crescia Rose Vivero Opiniano³, Ms. Rose Kyla Lago⁴,
Ms. Liezel Angeles Bautista Ty⁵, Ms. Nicole Pedrosa Regaña⁶,
Mr. Kyle Angelo Casuco Terado⁷, Christia Camarillo-Baltar⁸,
Wynne A. Cirera⁹, Jovan C. Velarde¹⁰, Gywnth Kaye V. Sudario¹¹,
Edgar Thaddeus D. Tabuyan¹²**

ABSTRACT

Geriatric patients frequently face challenges such as reduced mobility, balance impairments, and chronic pain, which have a substantial impact on their independence and overall well-being. Physical therapy has been recognized as a crucial component in managing these issues. Despite its acknowledged benefits, the specific association between demographic profile and functional mobility to the quality of life in geriatric populations requires further empirical exploration. This study aimed to provide a more profound knowledge of how physical therapy can enhance the well-being of geriatric patients. The study utilized descriptive-correlational design to determine and analyze the relationship between physical therapy intervention and the functional mobility and quality of life of geriatric patients with any disorders. Twenty-four geriatric patients who participated were given a questionnaire that consisted of general information and standardized (Short Form Survey Questionnaire (SF-36) and Functional Independence Measure (FIM). Results of the study showed a strong statistical relationship between physical functioning and functional mobility ($p=0.008$), age of participants and physical functioning ($p=0.004$), sex and energy/fatigue ($p=0.024$), sex and emotional well-being ($p=0.024$), and age of participants and functional mobility ($p=0.014$). The rest of the variables did not have an association with each other. The study recommends having a larger sample size, adopt a consistent instrument strategy, focus on geriatric patients with the same disease, and utilize experimental research design for future research.

INTRODUCTION

Background of the Study

From a chronological viewpoint, geriatrics starts from the age of 65 years old (Sieber, 2007). In addition to chronological age, other factors must be considered in order to define the geriatric patient. Functional

reserves decrease with age, which leads to increased vulnerability. Frailty, as a term describes this situation and can be defined pathophysiologically by a mainly subclinical inflammatory state. According to a study by Rittel et al. (2023), the demographic profile and functional mobility of geriatrics receiving physical therapy interventions play a vital role in influencing their quality of life to preserve daily living activities and functional mobility, early mobility therapies in the intensive care unit (ICU) for the geriatric population are critical. In the study by Maria et al. (2022), neurological, cardiovascular, and musculoskeletal diseases are prevalent, incapacitating ailments that impair mobility and raise the risk of falls in geriatric. With a considerable share of geriatrics developing mobility difficulties in later years, mobility constraints have a significant impact on geriatrics' independence and quality of life. Furthermore, according to Mirlesse et al. (2022), comorbidities and the functional status at admission have been found to be important variables affecting the likelihood of recovery and the location of discharge for geriatric patients undergoing rehabilitation treatments. Therefore, improving the quality of life of geriatric patients requires addressing the issues raised by the demographic profile and functional mobility through physical therapy.

During the past years, the global population has been observing a demographic shift towards an increasingly aged demographic, a trend estimated to continue well into the future. According to the World Health Organization (WHO) by 2030, 1 in 6 people in the world will be aged 60 years or over. At this time the share of the population aged 60 years and over will increase from 1 billion in 2020 to 1.4 billion. By 2050, the world's population of people aged 60 years and older will double (2.1 billion).

Giuccione (2012) featured the significant reality that active life expectancy tends to decrease with age, specifically beyond 79 years old. This decline emphasized the urgent need to address the challenges faced by geriatric populations, particularly concerning their quality of life (QoL) and functional mobility.

Demographics such as sex and age, impact the quality of life in people over 65 years old; women have lower QoL, which worsens with age, influenced by physical and mental health variables (Berta Ausín et al., 2020). Additionally, Bechtold (2021) featured geriatrics who experience mobility issues are more likely to have a lower quality of life, highlighting the need to improve both health and attitudes towards aging to enhance their overall well-being.

Jia & Lubetkin (2020) emphasized the impact of higher-level activities of daily living (ADL) limitations on life expectancy, active life expectancy (ALE), and disability-free life expectancy (DFLE). Persons with higher-level ADL limitations experienced shorter life expectancy and a greater proportion of expected life years with disability compared to those with no limitations or mild limitations.

Moreover, research has shown the significance of studying the association between demographic profiles, functional mobility, and quality of life in geriatric patients. Studies have highlighted the impact of functional disability on the quality of life of the elderly, emphasizing the importance of factors such as mobility, cognition, and social participation (Min Zhang et al., 2022) By addressing the particular difficulties that geriatric respondents have, this research will help clarify practical approaches for enhancing their well-being.

This study was conducted to enlighten readers on the vital link between demographic profile and functional mobility to the quality of life of geriatric respondents receiving physical therapy interventions. The findings from this study aimed to provide a more profound knowledge of the association between demographic profile and functional mobility to the quality of life. The researchers,

as Bachelor in Physical Therapy students, are driven by the idea that this study will serve as an instrument in making the lives of geriatric respondents better and refining the practice of physical therapy.

Statement of the Problem

1. What is the demographic profile of geriatric respondents receiving Physical Therapy interventions as to age, sex, duration of Physical Therapy interventions, frequency of Physical Therapy Interventions, and comorbidities?
2. What is the Quality of life of geriatric respondents receiving physical therapy interventions as to physical functioning, role limitations due to physical health, role limitations due to emotional health, energy/fatigue, emotional well-being, social functioning, pain, and general health?
3. What is the functional mobility of geriatric respondents receiving physical therapy intervention?
4. Is there a significant association between the functional mobility and quality of life of geriatric respondents receiving physical therapy interventions?
5. Is there a significant association between the demographics of geriatric respondents receiving physical therapy interventions to their functional mobility and quality of life?

Objectives of the Study

General objective:

The general objective of this study was to determine the association between demographic profile and functional mobility to the quality of life of geriatric patients receiving physical therapy interventions.

Specific objectives:

Specifically, the researchers sought to:

1. Identify the demographic profile of geriatric respondents receiving Physical Therapy interventions as to:
 - 1.1 Age
 - 1.2 Sex
 - 1.3 Duration of Physical Therapy Interventions
 - 1.4 Frequency of Physical Therapy Interventions
 - 1.5 Comorbidities
2. Determine the quality of life of geriatric respondents receiving physical therapy interventions as to domains:
 - 2.1 Physical Functioning
 - 2.2 Role limitations due to physical health
 - 2.3 Role limitations due to emotional health
 - 2.4 Energy/Fatigue
 - 2.5 Emotional well-being
 - 2.6 Social Functioning
 - 2.7 Pain
 - 2.8 General health
3. Determine the functional mobility of geriatric respondents receiving physical therapy interventions.
4. Determine the association between the functional mobility and quality of life of geriatric respondents

receiving physical therapy interventions.

5. Determine the association between the demographics of geriatric respondents receiving physical therapy interventions to their functional mobility and quality of life.

Theoretical Framework

This study was anchored on the Activity theory and Disengagement theory. The Activity theory was introduced by Havighurst and colleagues in 1961. This theory states a positive relationship between a person's activity level and life satisfaction. As a result, improved self-concept and enhanced adjustment in later stages of life are achieved. This proposes that retaining or increasing activity levels through physical therapy can influence the quality of life of geriatric patients.

Meanwhile, the Disengagement Theory posits that disengagement in society is an adaptive response to aging. This suggests that geriatrics reduce their social roles and activities while maintaining a sense of self-worth. This theory infers that although activity levels may decline, maintaining self-worth is crucial for quality of life.

Connecting these two theories implies a comprehensive perspective that functional mobility through physical therapy is associated with increased activity levels and affirms the adaptive process of disengagement when needed. Furthermore, the demographic profile is associated with the degree to which the individual can sustain activity level or engage in disengagement. Therefore, these theories imply that activity and disengagement are associated with the quality of life of geriatrics.

Conceptual Framework

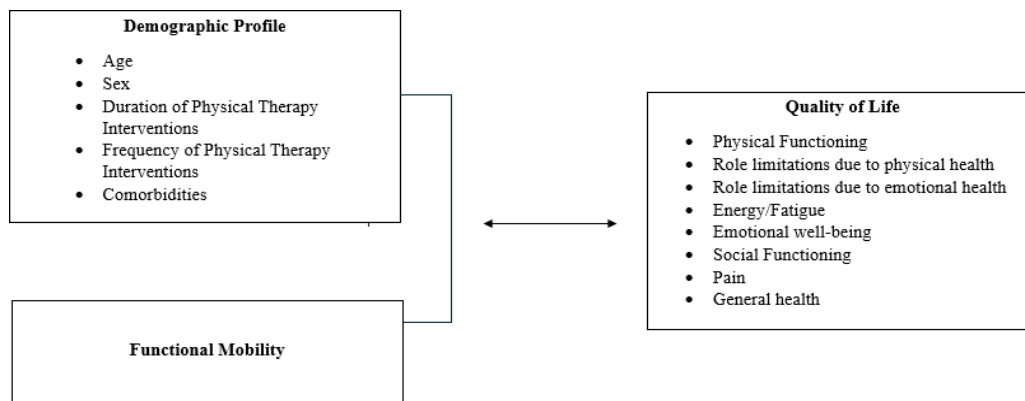


Figure 1. Conceptual Framework showing the relationships between the variables

Figure 1 shows the conceptual framework of the study. It illustrates the key concepts and the variety of relationships among the variables. The framework includes three independent variables, namely, demographic profile (age, sex, frequency of Physical Therapy Interventions, duration of Physical Therapy Interventions, and Comorbidities) functional mobility, and quality of life (Physical Functioning, Role limitations due to physical health, Role limitations due to emotional health, Energy/Fatigue, Emotional well-being, Social Functioning, Pain, and General health) of geriatric patients receiving physical therapy interventions. The framework illustrates the association between the demographic profile and functional mobility, as well as their association with the quality of life of geriatric respondents undergoing physical therapy interventions.

Significance of the Study

The purpose of the study was to provide valuable information on the association between demographic profile and functional mobility to the quality of life of geriatric respondents receiving physical therapy interventions and its relevance in the field of medicine. It was expected to have the following significance and benefits:

Community. The benefits of the study extend beyond geriatric respondents to the general populace, resulting in improved public health, decreased healthcare costs, and more age-friendly and inclusive societies.

Future Researchers. This research will serve as a useful resource for those who intend to conduct any related research underlying the Bachelor of Science in Physical Therapy.

Geriatric Respondents. The primary beneficiaries are the geriatric individuals themselves. They stand to gain improved quality of life, enhanced functional independence, and overall well-being.

Healthcare Institutions. Based on the study's findings, hospitals, rehabilitation centers, and long-term care facilities can improve their services, resulting in better outcomes for geriatric respondents and more affordable care.

Healthcare Professionals. Physicians, Physical Therapists, and other healthcare professionals can gain from the study's conclusions. To enable them to provide more individualized and effective care, it offers evidence-based insights into successful PT practices for geriatric respondents.

Scope and Delimitation

The study focuses on the association between demographic profile and functional mobility to the quality of life of Geriatric Patients receiving Physical Therapy Interventions.

The study involved 24 respondents in Baybay, Biliran, and Tacloban City, Leyte, Philippines. The demographic variables considered will include age, sex, comorbidities, and frequency & duration of physical therapy interventions. Quality of Life was measured using validated questionnaires, including the Short Form (SF-36) to evaluate the overall well-being and satisfaction of the respondents & Functional Mobility was assessed using the Functional Independence Measure to offer quantitative data of the respondent's mobility level.

This study is also limited to the geriatric patients of Baybay, Biliran, and Tacloban City, Leyte, Philippines, specifically, in private clinics and home care who undergo Physical Therapy Sessions with any disorders. Exclusion criteria will include individuals below the age of 65, geriatric patients receiving physical therapy sessions at hospitals, and individuals who are not residents of the province of Biliran, Baybay City, and Tacloban City, Leyte Philippines.

Definition of Terms

The terms below are defined for a clearer and better understanding of the readers:

Comorbidities. It is defined as the presence of two or more medical conditions or diseases in an individual at the same time.

Duration of Physical Therapy Intervention. It pertains to how many months the respondents have been going to physical therapy.

Frequency of Physical Therapy Intervention. It pertains to how many times in a week the respondents receive physical therapy interventions.

Functional Independence Measure (FIM). It is one of the research instruments utilized in the study to

evaluate the functional mobility of geriatric respondents receiving physical therapy interventions.

Geriatrics. The term refers to the older adults aged 65 and above who were respondents to the research.

Physical Therapist. The term refers to an individual who is enrolled and graduated in an accredited physical therapy curriculum, who, as part of the individual's professional, educational, and clinical training, is practicing in a physical therapy setting, and who is supervised by a licensed physical therapist.

36-Item Short Form Survey (SF-36). It is one of the research instruments utilized in the study to evaluate the quality of life of geriatric respondents receiving physical therapy interventions.

REVIEW OF RELATED LITERATURE

Quality of Life

Quality of life is an extensive approach that could be explained in multiple ways, but there is an appreciable consensus among quality of life researchers that quality of life is multi-dimensional and can be evaluated from subjective as well as objective perspectives (Lodhi et., al 2019). The World Health Organization (WHO) defines Quality of Life (QoL) as “an individual's perception of their position in life in the context of the culture and value systems in which they live and about their goals, expectations, standards, and concerns.”

The WHO stated that QoL domains comprise the environment, physical and psychological health, level of independence, social relations, spiritual, and personal beliefs. In literature, there is an ongoing theoretical debate on the definition and ways to measure these determinants. Moreover, the role of sociodemographic characteristics has been extensively investigated in some previous studies.

The increasing age of the population is a serious worldwide problem that countries are facing at the moment, and it sets the challenge of raising the opportunities for improving the quality of life of elderly people. One of the greatest challenges to public health is to improve the quality of life of the geriatric population as life expectancy continues to rise (Mohamed, 2020). Pursuing active aging and maintaining the quality of life is essential, particularly in geriatrics, the key objective of this is to maintain autonomy and independence, promoting physical and mental health, social inclusion, and in need-of-care people (Baldelli, 2021).

Short Form-36

The Short Form-36 (SF-36) is a widely used 36-item questionnaire measuring the quality of life in eight dimensions, including physical and mental health, with percentile norms (Trognon et al, 2022). It is a self-rating scale measuring patients' health perspectives, providing insights into physical and mental health, chronic diseases, treatment effects, and population health differences, commonly used in various conditions (Ware et al., 2020). Furthermore, it measures health-related quality of life, providing normative values for older adults' functioning level, and aiding in interpreting scores from a functional perspective (Peeters et al., 2019).

According to the Journal of the Medical Association of Thailand, SF-36 is commonly utilized in various studies to assess the quality of life (QOL) of patients with different health conditions. For instance, a study on psoriatic patients highlighted the use of SF-36 to measure QOL and its related factors, demonstrating scores across eight dimensions such as physical function, bodily pain, and mental health. Similarly, research on thalassemia patients in Bangladesh and rheumatoid arthritis patients in Bangladesh

also employed the SF-36 tool to evaluate the QOL of the participants, revealing associations between demographic factors, disease severity, and QOL outcomes (Hossain et al., 2023; Rahman et al, 2022). Furthermore, a study focusing on cardiovascular patients used SF-36, indicating its utility in measuring health outcomes and treatment effectiveness in related research (Capyapob, 2022)

Functional Mobility

Any fundamental movement a person performs to carry out daily tasks is referred to as functional mobility. It refers to a person's capacity to move around in their surroundings, including their residence. This involves moving around in bed, walking, getting up from a chair, and sitting down after standing. According to Lin et al., (2017), one of the main reasons why functional ability declines with aging is impaired mobility. Even though many pain sufferers are physically capable of meeting most of their demands, the motion stresses the muscles needed to do so. The only independent factor that was consistently associated with mobility was depression, which could be the focus of a national intervention. Although their contributions differed for different cities, balance, age, BMI, reaction time, and high intensity also had a significant impact. The observed variations in the mobility function and contributing factors across older adults residing in several cities indicate that city-specific initiatives may be necessary to enhance the mobility of older adults with mobility limitations.

In addition to this, Abalos & Booth, (2020) stated that in the Philippines, the frequency of mobility and self-care limits is comparatively low among older adults; nonetheless, there are notable regional variations in the prevalence of these limitations. The ARMM, an autonomous region in the southern Philippines, has the greatest rates of functional problems among elderly men and women. It also has the highest percentage of poverty in the nation. Additional research is required to examine older persons with varying functional capacities, environments, and lifestyles.

Functional Independence Measure (FIM)

An instrument called the Functional Independence Measure (FIM) was created to gauge disability across a range of demographics; it is not diagnosis-specific. It is a seven-level, eighteen-item ordinal measure designed to be responsive to changes during an extensive inpatient medical rehabilitation program. It uses the level of assistance an individual needs to grade functional status from total independence to total assistance). The FIM assesses six areas of function (Self-care, Sphincter control, Transfers, Locomotion, Communication, and Social cognition), which fall under two Domains (Motor and Cognitive). It has been studied on elderly patients undergoing inpatient rehabilitation, patients with multiple sclerosis, traumatic brain damage, spinal cord injury, stroke, and children as young as 7 years old.

The study by Gkouma et al., (2022) established the reliability and validity of the Functional Independence Measurement (FIM) in Greek patients with neurological disorders, demonstrating its structural and synchronic validity, inter-rater and intra-rater reliability, and sensitivity to changes in clinical conditions. Additionally, the research by Fujiwara et al., (2023) focused on the Spanish cross-cultural adaptation of the Functional Independence Measure + Functional Assessment Measure (FIM+FAM) Scale, showcasing excellent internal consistency, inter-rater reliability, and convergent validity, supporting its use in assessing functional independence post-stroke. The FIM's validity, sensitivity to shifts in patients' functional independence levels, and dependability make it a valuable tool for clinical practice and research, as these studies have demonstrated. The Functional Independence

Measure (FIM) has been used in geriatric research studies to evaluate functional status and forecast outcomes in older populations. Higher FIM scores prior to admission were substantially associated with decreased one-year mortality rates, according to research done in a geriatric intermediate care unit by D'Andrea et al. (2020). This finding highlights the potential of FIM in predicting outcomes for critically ill older patients. Additionally, improvements in elderly functional independence were shown in a pilot study by Ferreira et al. (2022) that implemented a rehabilitation nursing program. These improvements were measured by the Barthel scale and functional fitness tests, demonstrating the efficacy of such interventions in enhancing elderly functional aptitude.

Duration of Physical Therapy Interventions

The duration of Physical therapy interventions is a critical factor in determining the success of the interventions. Studies suggest that both short-term intensive therapy and long-term regular therapy have benefits, but the optimal duration may vary depending on the individual's condition and goals. (Gillespie et al., 2012). Short-term intensive PT involves frequent sessions over a brief period. Research indicates that intensive therapy can lead to rapid improvements in functional mobility and QoL, especially in post-acute settings. However, the sustainability of these improvements over time requires further investigation (Langhorne et al., 2011). Furthermore, long-term regular PT consists of less frequent but ongoing sessions. This approach is beneficial for managing chronic conditions and preventing the decline in mobility associated with aging. Studies show that long-term therapy can sustain improvements in functional mobility and QoL over extended periods (Binder et al., 2002).

Frequency of Physical Therapy Interventions

The frequency of physical therapy interventions per week varies depending on the condition being treated (Ökmen, et al. 2020). Moreover, Boateng et al. (2020) emphasized that regular physical therapy sessions play a vital role in enhancing the well-being and functional abilities of the elderly population, promoting better health outcomes and quality of life.

A study by Peiris et al. (2011) stated that extra physical therapy, defined as longer physical therapy sessions or more frequent physical therapy sessions, may have a positive effect on patient outcomes. Furthermore, the authors also noted that if the benefit of providing extra physical therapy outweighs the cost of providing this service, it may contribute to increased health service efficiency so that patients can achieve good functional outcomes earlier and discharge can occur sooner.

REVIEW OF RELATED STUDIES

Demographics and Physical Therapy Intervention

Personal factors denote a multifaceted array of intrinsic attributes, circumstances, and situations inherent to a person, which wield influence over their healthcare trajectories and interactions within the medical domain (Gholson et al., 2016). These elements encompass a spectrum, ranging from demographic traits like age, race, and educational attainment, to medical conditions, emotional responses, coping mechanisms, treatment compliance, motivational levels, and the dynamics within patient-provider relationships (Veatch et al., 2017). Recognizing and attending to these personal factors is paramount within healthcare provision, as they significantly shape treatment choices, patient adherence levels, and overall satisfaction with care delivery (Bos-Touwen et al., 2017).

Age is one of the factors that influence physical activity levels. The impact of age on physical therapist

treatment choices varies depending on the type of intervention. Whether age increases or decreases, the probability of receiving a particular treatment varies depending on the interventions. The age-related differences in the probability of receiving certain intervention categories may be consistent with age-related changes in health and function (Greenburger et al., 2012). Recovery from injuries, illnesses, or medical procedures can be significantly influenced by age and various related factors. As individuals age, their bodies undergo physiological changes which can slow down recovery from injuries or illnesses (Amarya et al., 2018).

Wijngaarden et al. (2015) suggest that individuals over the age of 70 increasingly experience feelings of disconnection from life and a heightened desire to end their lives. Furthermore, Leyva et al. (2017) found that over one-third of respondents aged 70 and above reported avoiding medical care due to discomfort with body examinations (34.5%) or fear of serious illness (35.9%), with fewer citing avoidance because it reminded them of death.

Moreover, Noone & Stephens (2002) highlight the importance of seeking medical help early for recovery. However, evidence from the study shows that males do not make use of general practitioner services as often as females.

Association Between Functional Independence and Quality of Life

The unavoidable process of aging brings with it several age-related changes, including a higher likelihood of functional dependency, adjustments to family dynamics, and a shift in the perception of social support, all of which can lower the quality of life for geriatrics. It has been reported that if geriatrics are in a functional family, their level of self-esteem, psychological health, and personal and environmental relationships will be favored with an impact on their quality of life.

The data analyzed in the study of Alonso et al., (2022) demonstrate how elements like functional independence, family function, and good perceived health affect geriatrics' perceptions of their quality of life. It was found that a person's overall quality of life increased with decreasing dependence on doing IADL (Instrumental Activities of Daily Living) and BADL (Basic Activities of Daily Living) tasks.

Another study carried out by Gomes Neto & Fernandes De Castro shows that engaging in physical activity is linked to having healthy functional independence. An improvement in important variables was noted for senior citizens' independence. The group of active geriatric individuals exhibited higher FI values in various categories, including personal care, sphincter control, and locomotion.

Engaging in physical activity can help maintain or improve strength, flexibility, coordination, and balance—all vital components of physical fitness for the maintenance of functional capacity in geriatrics—and can also positively impact the changes brought about by aging. Exercise not only increases functional ability but also enhances physical fitness.

Therefore, it is understood that to be independent requires physical skills. Although these can decrease with age, they are not part of aging, so it is important to promote healthy aging and that nursing professionals continuously assess the levels of functional dependence.

How Age Affects Quality of Life & Functional Mobility

Age is intricately linked to the quality of life and functional mobility of individuals, particularly older adults. According to Reid et al., (2023), mobility has a major impact on independence and general well-being and is an essential component of human functioning. It emphasizes how vital mobility is to the quality of life of geriatrics, as limited mobility can result in lower community involvement, increased

risk of falls, fractures, and chronic illnesses, as well as lower use of healthcare resources. Mobility loss can result from age-related impairments in physiological systems, highlighting the need for interventions to address early alterations and enhance older people's overall health and quality of life.

Age significantly influences the quality of life (QOL) in various populations, particularly in elderly individuals. Yancey et al., (2019) states that Age is an independent predictor of QOL outcomes after surgery, as evidenced by study showing older patients with chronic rhinosinusitis (CRS) report less gains in disease-specific and general health QOL following surgery than younger age groups. The results highlight the complex correlation between age and quality of life (QOL), underscoring the need for customized interventions and support networks for senior citizens to improve their general state of health.

Functional mobility in geriatric patients is significantly impacted by age-related factors. Rittel et al., (2023) older adults, especially those over 65 years, are at a higher risk of functional decline and reduced mobility, leading to negative outcomes such as falls and pressure injuries. Studies have shown that older adults with cognitive complaints and slow gait, known as Motoric Cognitive Risk (MCR) syndrome, experience impaired functional mobility, likely due to reduced muscular strength, coordination, fear of falling, and increased instability.

How Sex Affects Quality of Life

Sex plays a significant role in influencing the quality of life (QOL) in geriatric patients. A study on demographics as determinants of QoL among senior citizens in the Philippines found that QoL is highly related to factors like sex. Findings also revealed that women have been found to have poorer perceived health, but better social relations and QOL than men (Palmes et al., 2021). In another study, Hajian-Tilaki et al. (2017) showed that QOL is found to be significantly higher in men. The age group of 60-69 senior citizens scored significantly higher in the overall health-related QOL than those in the older age group. Additionally, the sex variable appears to have a modest contribution to the differences in perceptions of QOL. According to Bonsaksen (2012), men appeared to have a higher quality of life than females, as reflected both in the total score and in the psychological and social domains of quality of life. Studies by Sarju et al. (2022) have also shown that gender disparities exist in various aspects of QOL, such as subjective happiness, physical and psychological factors, social relationships, and environmental factors. Moreover, Giandalia et al., (2019) findings indicated that women tend to experience greater cognitive impairment, lower autonomy in daily life, and lower satisfaction levels compared to men, impacting their overall QOL.

How Sex Affects Functional Mobility

According to Tahmer et.al (2016) mobility is fundamental for autonomy, independence, and high quality of life. It is associated with time spent outside the home and overall health perceptions among older adults. There is abundant evidence showing that women have a higher prevalence and incidence of self-reported mobility disability and poor physical performance compared to men. Moreover, the gap between women and men is greater in low and middle-income countries, compared with high-income countries. However, little is known on whether these sex differences can be explained by gender-stereotyped traits.

According to Talarska et. al (2017) despite the difference in numbers, the mean age for men and women was similar – about 75 years old. This is the age at which disease and the aging process increasingly limit independent functioning.

How Comorbidity Affects Quality of Life & Functional Mobility

Comorbidity refers to any distinct clinical entity that coexists with or occurs during the clinical course of another illness or condition. In other words, it refers to the co-occurrence of two or more distinct illnesses, disorders or conditions in a single individual. As a result of the comorbidity, some disorders tend to occur together more often than they occur alone. (Brown et al., 2020)

According to (Loulianos et al., 2014) the impact of comorbidity on functional mobility in older adults is of particular concern. Age-related physiological changes, such as decreased muscle mass and impaired balance, already increase the risk of falls and functional decline in older adults. Comorbidity exacerbates these risks, as the presence of multiple conditions can further limit mobility, leading to a downward spiral of decreased activity, social isolation, and reduced quality of life.

Moreover, The impact of comorbidity on functional mobility in older adults extends beyond physical limitations. Older adults with multiple chronic conditions and low health-related quality of life were more likely to report problems with mobility, pain, and emotional well-being. This highlights the interconnectedness of physical and mental health in the context of comorbidity and its impact on overall quality of life. (Trần et al., 2022)

Managing comorbidity in geriatric patients requires a multifaceted approach. (Sampalli et al., 2012) advocates for integrated care models that prioritize patient-centered care, coordinated management of multiple conditions, and support for self-management strategies. Additionally, interventions aimed at promoting physical activity, improving medication management, and addressing psychosocial needs are crucial for mitigating the negative impact of comorbidity on both functional mobility and quality of life in older adults.

How Physical Therapy Affects Functional Mobility

Functional mobility is the physiological ability of people to move independently and safely in a variety of environments in order to accomplish functional activities or tasks and to participate in activities of daily living (ADL), at home, at work, and in the community. It includes movements like standing, bending, walking, and climbing, which are the building blocks of ADL, and hence crucial to an individual's independent living and global health status (Forhan et al., 2013).

Functional mobility is a global disease-related feature that may provide adequate information about treatment responses and disease course, as it may encompass one of the outcomes most relevant to patients' daily lives (Burgess et al., 2016).

It has been shown that a multicomponent exercise training program centered on lower limb resistance exercises and an aerobic exercise protocol, is safe and effective for managing several pertinent health indicators, including gait speed, functional mobility, functional capacity, and balance in geriatrics living in institutions. (López-López et al., 2023). The program's 12-week duration might not be as effective in geriatrics as well as younger subjects, which might have influenced certain outcomes.

The only independent factor that was consistently associated with mobility was depression, which could be the focus of a national intervention. Although their contributions differed for different cities, balance, age, BMI, reaction time, and high intensity also had a significant impact. The observed variations in the mobility function and contributing factors across geriatrics residing in several cities indicate that city-specific initiatives may be necessary to enhance the mobility of geriatrics with mobility limitations (Lin et al., 2017).

Exercise adherence was predicted by particular cognitive processes, such as the executive function of

attention, short-term memory, and set-shifting, as well as functional mobility (Davis et al., 2021). The study identifies associations between cognitive and mobility factors and exercise adherence but does not establish causation.

Moreover, Reid et al. (2023) stated that Physical therapy plays a crucial role in enhancing functional mobility and promoting independence in various patient populations. PT interventions can help improve functional mobility in patients with age-related mobility disabilities in the geriatric population.

How Physical Therapy Affects Quality of Life

Physical activity is defined as any bodily movement that involves skeletal muscle contraction and that substantially increases energy expenditure (Giuccione, 2012). The author further stated that physical activity is typically leisurely activity, requires little to no supervision, is of lower intensity than exercise, and may be thought of as usual activity.

Physical therapy does not just merely treat physical ailments, it also improves the overall quality of life (Zhuo et al., 2023). They stated that physical therapy reduces pain, improves mobility, prevents falls, speeds up recovery, and manages chronic conditions which contributes to improving an individual's quality of life.

Evidence demonstrates that palliative physical therapy can improve the function, independence, comfort, mood, and QoL of patients. In addition to the physical benefits, physiotherapists can help patients optimize and preserve their dignity despite fluctuations or deterioration in their condition. This is done through direct therapeutic interventions as well as providing communication, education, and collaboration among caregivers and the interdisciplinary team (Ogundunmade et al., 2024).

According to Pinci (2023), one of the most significant benefits of physiotherapy is its impact on physical health. Physiotherapy can help individuals manage chronic conditions such as arthritis, low back pain, and other musculoskeletal conditions. By reducing pain and improving mobility, physiotherapy can increase physical activity levels, reduce the risk of falls and fractures, and improve the overall quality of life.

METHODOLOGY

Research Design

The descriptive-correlational design was employed by the researchers to accomplish the objectives of the study. The researchers determined the association between the demographic profile and functional mobility to the quality of life of geriatric patients with any disorders.

Research Locale

The researchers conducted the study at Biliran, Baybay City, and Tacloban City, Leyte, Philippines. Specifically, the respondents from Biliran and Baybay City are receiving physical therapy treatment interventions in ASP Rehab Clinic and Bonzel Rehab Clinic respectively. Furthermore, respondents from Tacloban City are receiving physical therapy interventions in a homecare setting.

Research Respondents

The respondents of this study were selected using the complete enumeration technique. Complete enumeration, also known as census, refers to the process of collecting data from every single

member of a population or group, rather than just a sample. This method aims to gather information from the entire population to ensure accurate and comprehensive results (Ganapati et al., 2010).

The population was geriatric respondents with any disorders in Baybay, Biliran, and Tacloban City, Leyte, Philippines, specifically, in private clinics and homecare. The researchers have sent letters to the chief physical therapists of ASP Clinic and Bonzel Rehab Clinic and asked permission to include the geriatric respondents under the care of the clinics as part of the study. This process was followed for the physical therapists in Tacloban City who have homecare geriatric patients. Once the researchers have received approval, patients meeting the following criteria were invited to participate in the study: The criteria for the inclusion of the respondents were the following:

1. Individuals must be 65 y.o and above.
2. Geriatrics must be undergoing Physical Therapy Interventions.
3. Individuals must be a resident of Biliran, Baybay City, and Tacloban City, Leyte, Philippines

The criteria for the exclusion of the participants were the following:

1. Individuals below the age of 65.
2. Geriatrics receiving physical therapy interventions at hospitals.
3. Individuals who are not residents of the province of Biliran, Baybay City, and Tacloban City, Leyte Philippines

The researchers then gathered 9 respondents from Biliran, 6 respondents from Baybay City, and 9 respondents from Tacloban City that fit the inclusion criteria for a total of 24 with 21 female and 3 male respondents.

Research Instrument

To get the appropriate data needed for the data analysis, the researchers utilized a three-section survey questionnaire.

Section I, the researchers used a researcher-made questionnaire necessary to collect information from the respondents of the study. This included the general questionnaire, which asked about the respondent's age, gender, duration of physical therapy interventions, frequency of physical therapy interventions, and comorbidities.

Section II, the researchers used the 36-Item Short Form Survey Questionnaire (SF-36) an instrument that was often used, well-researched, self-reported measure of health which comprised 36 questions that cover 8 domains of health (Physical Functioning, Role Limitation to Physical Health, Role Limitation to Emotional Problem, Energy/Fatigue, Emotional Well-Being, Social Functioning, Pain & General Health) to measure the quality of life of geriatric respondents with any disorders. Original authors Ware Jr., John E. designed the SF-36 to measure health at the individual level in clinical practice and research and at the population level for health policy evaluations, and general population surveys. It has been used in thousands of research studies. The SF-36 is suitable for use with an elderly population when used in an interview setting. WHOQOL-BREF and SF-36 were used for QOL assessment of the study and Both WHOQOL-BREF and SF-36 were effective instruments for assessing QOL in elderly NCCD Neuro-co-Cardiological Diseases patients, showing good reliability and validity for both scales. The response rate for the SF-36 questionnaire was high (83%) and the rate of completion for each dimension was over 95%. Considerable evidence was found for the reliability of the SF-36 (Cronbach's alpha greater than 0.85, reliability coefficient greater than 0.75 for all dimensions except social functioning) and construct validity in terms of distinguishing between groups with expected health

differences.

Legend:	
Domain	SF - 36 Item Number:
Physical Functioning (PF)	3 - 12
Role Limitations to Physical Health (RLP)	13 - 16
Role Limitations to Emotional Problem (RLE)	17 - 19
Energy/Fatigue (E/F)	23, 27, 29, 31
Emotional Well Being (EWB)	24 - 26, 28, 30
Social Functioning (SF)	20 & 32
Pain (P)	21 & 22
General Health (GH)	1, 33-36

Section III, the researchers also utilized the standardized Functional Independence Measure (FIM) to determine the respondent's functional mobility. The licensor of the FIM is the Australasian Rehabilitation Outcomes Center (AROC), wherein the researchers obtained the questionnaire from . The examination was done through direct client observation or an interview and covered six areas of function: self-care, sphincter control, transfers, locomotion, communication, and social cognition. Functional Independence Measure (FIM) reliability was generally reported to be good, with very good interrater reliability to the total score (0.96), motor score (0.96), and cognitive score (0.91).

Legend:

LEVELS	Independent 7 Complete Independence (Timely, Safely) 6 Modified Independence (Device)	NO HELPER
	Modified Dependence 5 Supervision (Subject = 100%+) 4 Minimal Assist (Subject = 75%+) 3 Moderate Assist (Subject = 50%+)	HELPER
	Complete Dependence 2 Maximal Assist (Subject = 25%+) 1 Total Assist (Subject = less than 25%)	
	Note: Leave no blanks. Enter 1 if patient is not testable due to risk.	

Data Gathering Procedure

After the respondents had been selected through the inclusion and exclusion criteria, the researchers created a questionnaire that asked the respondent's age, sex, frequency, duration of therapy, and comorbidities. The researchers then obtained the full copy of the SF-36 which is free from the RAND website. Subsequently, the researchers contacted the AROC FIM team via email and requested authorization to employ the FIM as a research tool for the study. The researchers received a response from the AROC FIM team, who approved the request and provided a hyperlink that immediately went to the complete FIM Assessment. All of the instruments were consolidated into a singular document comprising three distinct sections.

Informed consent forms, which detailed the rights of the respondents, the purpose of the study, and the significance of their participation, were distributed to respondents in Baybay, Biliran City, and Tacloban City. After obtaining their consent, the researchers administered the research instruments to the participants. They were instructed to provide honest and complete responses to the questionnaire.

Upon completion of the research instruments by the respondents, the researchers systematically

compiled and analyzed the collected data. Based on the results of this analysis, the researchers concluded and formulated recommendations.

Data Analysis

This study utilized various statistical methods that analyzed the data gathered from the respondents. The frequency counts and percentages were used to answer the first objective. The means, standard deviation, and likert scale were used to analyze the second, and third objectives. Lastly, the contingency coefficient was employed to answer the fourth and fifth objectives.

RESULTS AND DISCUSSION

This chapter presents the findings of the research. It consists of the findings and the discussion of the research to answer the research questions that have been set out before. Tabular presentations of the results are supplemented with discussions to facilitate understanding.

OBJECTIVE 1:

Table 1. Frequency and Percentage Distribution of Demographic Profile

Demographics		Frequency	Percentage
Age	65 – 75 years old	13	54.167
	> 75 years old	11	45.833
Sex	Male	3	12.500
	Female	21	87.500
Duration of Therapy	< 6 months	8	33.333
	> 6 months	16	66.667
Comorbidities	Have Comorbidities	17	70.833
	Do not have Comorbidities	7	29.167
Frequency of PT Session	Once a week	8	33.333
	Twice a week	7	29.167
	Thrice a week	9	37.500

The succeeding discussion presents the percentage distribution of the respondents' demographic profile (1) Age; (2) Sex; (3) Duration of Therapy; (4) Comorbidities, and (5) Frequency of PT Sessions.

Age. Table 1 presents the frequency of the age of the respondents in which 13 out of 24 are 65-75 years old. This is equivalent to 54.167% of the distribution. Meanwhile, 11 out of 24 are 75 years old and above which is equivalent to 45.833% of the distribution. These data align with the study of Wijngaarden et al. (2015), which suggests that individuals over the age of 70 increasingly experience feelings of disconnection from life and a heightened desire to end their lives. Furthermore, Leyva et al. (2017) found that over one-third of respondents aged 70 and above reported avoiding medical care due to discomfort with body examinations (34.5%) or fear of serious illness (35.9%), with fewer citing

avoidance because it reminded them of death. The age distribution of the respondents underscores significant emotional and psychological challenges faced by people over 75 years old, which can lead to their avoidance of seeking physical therapy.

Sex. Table 1 presents the frequency of the sex of the respondents in which 3 out of 24 are male. This is equivalent to 12.500% of the distribution. Meanwhile, 21 out of 24 are female which is equivalent to 87.500% of the distribution. This imbalance corresponds to the study by Noone & Stephens (2002), which highlights the importance of seeking medical help early for recovery. However, evidence of the study shows that males do not make use of general practitioner services as often as females.

This insufficient usage can be understood through Connell's (1995) theory of hegemonic masculinity. Likewise to this theory, masculine identities that regard toughness, stoicism, and self-reliance are created by societal expectations and norms. These traits make males often discouraged from seeking help, resulting in a lower rate of medical service utilization among men compared to women. This is specifically essential for physical therapy, as patients need a referral from a medical doctor before they can be seen by a physical therapist.

Duration of Physical Therapy Intervention. Table 1 presents the frequency of the duration of physical therapy of the respondents in which 8 out of 24 are receiving Physical Therapy interventions for less than 6 months. This is equivalent to 33.333% of the distribution. Meanwhile, 16 out of 24 are receiving Physical Therapy interventions greater than 6 months which is equivalent to 66.667% of the distribution.

Frequency of Physical Therapy Interventions. Table 1 presents the frequency of the PT session frequency of the respondents in which 8 out of 24 receives PT interventions once a week. This is equivalent to 33.333% of the distribution. Meanwhile, 7 out of 24 receive PT interventions twice a week. This is equivalent to 29.167% of the distribution. On the other hand, 9 out 24 receive PT interventions thrice a week. This is equivalent to 37.500% of the distribution.

Comorbidities. Table 1 presents the frequency of the comorbidities of the respondents in which 17 out of 24 have comorbidities. This is equivalent to 70.833% of the distribution. Meanwhile, 7 out of 24 do not have comorbidities which is equivalent to 29.167% of the distribution.

OBJECTIVE 2.

Table 2. Descriptive Statistics of Physical Functioning

	Mean	Std. Deviation	Interpretation
PF3	1.500	0.780	Yes, limited a lot
PF4	1.958	0.859	Yes, limited a little
PF5	1.833	0.868	Yes, limited a little
PF6	1.958	0.908	Yes, limited a little
PF7	2.083	0.929	Yes, limited a little
PF8	2.000	0.780	Yes, limited a little
PF9	1.875	0.797	Yes, limited a little
PF10	2.042	0.908	Yes, limited a little
PF11	2.125	0.900	Yes, limited a little
PF12	2.292	0.859	Yes, limited a little
PF	1.967	0.758	Yes, limited a little

Table 2 presents the means and standard deviation of each question under the Physical Functioning

domain which shows whether the health of the respondents limit their activities in a typical day. The overall mean is 1.967 which is interpreted as Yes, limited a little. This means that the activities of the respondents in a typical day are limited a little due to their health. These findings align with a study by Nascimento et al. (2022) which emphasized that aging results in a natural decline in physiological systems, impacting physical function (PF) such as cardiorespiratory performance, muscle strength, flexibility, speed, and balance. They noted that sufficient physical activity levels are important to maintain or improve PF, which influences gait speed directly. This interrelation supports the findings above that respondents' daily activities are limited a little due to their health, particularly since walking, influenced by GS, is integral to daily tasks and is present in several items under the Physical Functioning domain.

In addition to this, a study by Seeman and Chen (2002) highlights that although older age is usually associated with declining health and functioning, the range of these declines can be exaggerated. They stressed modifiable factors that affect the risk of declining physical functioning, suggesting potential interventions to enhance overall functioning. This supports the result above in which respondents chose “Yes, limited a little” instead of “Yes, limited a lot”, likely influenced by receiving physical therapy.

Table 3. Frequency and Percentage Distribution of Role Limitations due to Physical Health

			Frequency	Percentage
RLP13	1	Yes, have cut down the amount of time spent on work or other activities	16	66.667
	2	No, haven't cut down the amount of time spent on work or other activities	8	33.333
RLP14	1	Yes, accomplished less than liked	17	70.833
	2	No, did not accomplish less than liked	7	29.167
RLP15	1	Yes, kind of work or other activities are limited	18	75.000
	2	No, kind of work or other activities were not limited	6	25.000
RLP16	1	Yes, had difficulty performing the work or other activities (for example, it took extra effort)	15	62.500
	2	No, did not have difficulty performing the work or other activities (for example, it took extra effort)	9	37.500

Table 3 presents the frequency and percentage distribution of Role Limitations due to Physical Health. Both Groups 1 & 2 of RLP15 got the highest and lowest frequency values. 18 out of 24 (75.000%) answered that the kind of work or other activities were limited due to physical health. Meanwhile, 6 out of 24 (25.000%) answered that the kind of work or other activities were not limited due to physical health. This means that the respondents' kind of work or other activities are compromised due to

physical health. These findings align with a study by Satariano et al. (2000), which noted that women aged 55 years old and above are more likely than men of the same age to report limiting or avoiding physical activity. This tendency is found to be consistent with other studies stating that women in general are less likely than men to be involved in leisure-time physical activity. Furthermore, the authors stated that as age increases, both men and women are likely to cite similar reasons for activity limitations, specifically physical activities, most often due to medical conditions. This further affirms the findings of the current study, especially considering that most respondents are female.

Table 4. Frequency and Percentage Distribution of Role Limitations due to Emotional Problems

			Frequency	Percentage
RLE17	1	Yes, have cut down the amount nt on work or other activities	12	50.000
	2	No, haven't cut down the amount of time spent on work or other activities	12	50.000
RLE18	1	Yes, accomplished less than liked	13	54.167
	2	No, did not accomplish less than liked	11	45.833
RLE19	1	Yes, Didn't do work or other activities as carefully as usual	11	45.833
	2	No, work or other activities were done as carefully as usual	13	54.167

Table 4 presents the frequency and percentage distribution of Role Limitations due to Emotional Problems. Group 1 of RLE18 and Group 2 of RLE19 got the highest frequency values which is 13 out of 24 (54.167%). This means that the respondents accomplished less work or activities than liked while still being as careful as usual. A study by Lee et al. (2012) noted specific activities and mobility limitations linked with depression, such as difficulties in lifting objects and climbing stairs. This supports the connection between emotional problems and role limitations, further endorsing the findings observed in this study. Difficulty in lifting objects and climbing stairs are essential parts of daily work or activities for many people, underlining the impact of emotional problems on functional abilities that are essential for independent working.

Additionally, Hoang et al. (2016) highlighted significant connections between age, depression, and fear of falling causing geriatric patients to be reluctant in doing activities and being careful in doing so, underscoring how emotional problems can be a factor to limitations in activities done as carefully as usual. This supports the belief that emotional problems can influence the perception of safety and confidence in performing daily tasks, which may contribute to reported role limitations due to emotional problems.

Table 5. Descriptive Statistics of Energy/Fatigue

	Mean	Std. Deviation	Interpretation
E/F 23	3.542	1.179	Some of the time
E/F 27	3.167	1.204	A good bit of the time

E/F 29	4.333	1.239	A little of the time
E/F 31	3.792	1.285	Some of the time
E/F	3.708	0.670	Some of the time

Table 5 presents the means and standard deviation of each question under the Energy/Fatigue domain which shows how much of the time the respondents felt they were full of pep (E/F23), energy (E/F27), worn out (E/F29) and tired (E/F31). The overall mean is 3.708 with an SD of 0.670 which is interpreted as Some of the time. This means that overall, respondents only felt they were full pep, energy, worn out and tired only some of the time.

These findings are supported by Clegg and Godfrey (2018) that noted changes in energy intake among geriatrics engaging in acute or regular physical activity. They emphasized that energy intake increased with some intervention, but not always adequate to sustain energy balance. Furthermore, Hardy and Studenski (2010) discovered that fatigue was common among geriatric primary care patients, with 70% reporting one or more fatigue qualities and 43% reporting feeling tired most of the time and was associated with worse health and functional status. 70% of the respondents have been engaging in constant physical activities as part of rehabilitation or leisure activities. This supports the findings that the respondents felt energy and fatigue “some of time” only after being able to receive Physical Therapy interventions for months.

Table 6. Descriptive Statistics of Emotional Well-being

	Mean	Std. Deviation	Interpretation
EWB24	4.458	1.382	A little of the time
EWB25	5.000	1.383	A little of the time
EWB26	2.333	1.129	Most of the time
EWB28	4.375	1.345	A little of the time
EWB30	2.208	1.021	Most of the time
EWB	3.675	0.697	Some of the Time

Table 6 presents the means and standard deviation of each question under the Emotional Well-being domain which shows how much of the time the respondents felt nervous (EWB24), down (EWB25), calm and peaceful (EWB26), downhearted and blue (EWB28), and happy (EWB30). The overall mean is 3.675 which is interpreted as Some of the time. This means that these emotions were felt by the respondents some of the time only. These findings align with several studies on emotional well-being among geriatrics. Mehta et al. (2003) stated that anxiety symptoms, including feeling nervous, occurred in 15% of older individuals without depression and 43% of those with depression. Moreover, Firdaus (2016) conducted a questionnaire-based cross-sectional survey in Delhi, India, finding that only 23.6% felt calm and peaceful of the geriatric population. These results align with the study’s findings, where overall respondents felt these emotions some of the time.

On the contrary, the findings for feeling downhearted and blue somewhat contradict the study by Brown (2004) which stated that more than 55% of the 1250 respondents reported feeling downhearted and blue a little of the time and only 30% felt these emotions some of the time. This discrepancy may be attributed to differences in the number of respondents and the methodologies used in the studies.

Table 7. Descriptive Statistics of Social Functioning

	Mean	Std. Deviation	Interpretation
SF20	2.292	1.268	Slightly
SF32	3.792	1.351	A little of the time

Table 7 presents the means and standard deviation of each question under the Social Functioning domain. SF32 got the highest mean value, which is 3.792, this means that the amount of time that the respondent's physical health or emotional problems interfered with social activities was all of the time. Meanwhile, SF20 got the lowest mean value, which is 2.292, this means that the extent of physical health or emotional problems that interfered with normal social activities with family, friends, neighbors, or groups is Slightly . A report from the National Academies of Sciences, Engineering, and Medicine (NASEM) supports these findings by pointing out that nearly one-fourth of adults aged 65 and older are considered to be socially isolated. Older adults living alone were more likely to report feeling sad, hopeless, and worthless. They were also more likely to experience lower levels of social support, trust, cohesion, and enjoy less leisure-time physical activity than those living with others. Yu et al. (2018) also support these findings stating that compared to older adults living with others, those who live alone had poorer mental health, less social capital, and less frequent leisure-time physical activity. Older adults living alone who engaged in higher levels of light or moderate leisure-time physical activity had a lower probability of experiencing less depression.

Table 8. Descriptive Statistics of Pain

	Mean	Std. Deviation	Interpretation
P21	3.167	1.090	None
P22	2.792	1.285	Not at all

Table 8 presents the means and standard deviation of each question under the Pain domain. P21 got the highest mean value, which is 3.167. This means that during the past 4 weeks, the bodily pain that was experienced by the respondents was none. Meanwhile, P22 got the lowest mean value, which is 2.792. This means that during the past 4 weeks, pain did not interfere at all with work (including both work outside the home and housework). However, the result for pain not interfering at all with work is contradicted by Skovlund et al. (2023) which stated that pain interference in geriatrics significantly impacts work ability, especially in physically demanding occupations. Moreover, the study of da-Costa et al. (2022) reported that physical therapy has a significant impact on improving the well- being of elderly patients by reducing pain and discomfort. The study shows that physical therapy sessions have already influenced the findings since they employ several strategies specifically designed to enhance the patients' quality of life.

Table 9. Descriptive Statistics of General Health

	Mean	Std. Deviation	Interpretation
GH1	2.625	0.924	Good
GH33	3.417	1.472	Mostly false
GH34	2.458	1.414	Mostly true

GH35	3.458	1.560	Mostly false
GH36	2.125	1.035	Mostly true

Table 9 presents the means and standard deviation of each question under the General Health domain. GH35 got the highest mean value, which is 3.458, this means that respondents respond with “mostly false” when asked if they think their health will get worse. Meanwhile, GH36 got the lowest mean value, which is 2.125, this means that respondents respond with “mostly true” when asked if they think their health is excellent. Findings are supported by Lucas et al. (2018) study stating that when asked to rate respondents’ overall health, 82 percent of adults ages 65 to 74 described it as excellent (18 percent), very good (32 percent) or good (32 percent) — on the positive side of the ledger. This trend toward positivity is evident among adults age 75 and older: 73 percent of this group said their health was excellent (12 percent), very good (28 percent) or good (33 percent), while only 27 percent gave a fair (20 percent) or poor (7 percent) evaluation.

OBJECTIVE 3.

Table 10. Descriptive Statistics of Functional Mobility

	Mean	Std. Deviation	Interpretation
SEC A	6.542	1.250	With Complete Independence
SEC B	5.792	2.085	With Modified Independence
SEC C	5.417	2.244	With Modified Independence
SEC D	5.583	2.244	With Modified Independence
SEC E	5.167	2.180	With Supervision
SEC F	5.375	2.123	With Modified Independence
SPC G	5.958	1.989	With Modified Independence
SPC H	5.958	1.989	With Modified Independence
TRI	5.083	2.569	With Supervision
TRJ	5.208	2.467	With Supervision
TRK	5.083	2.501	With Supervision
LOL	5.250	2.541	With Supervision
LOM	4.917	2.765	With Supervision
COC	6.875	0.612	With Complete Independence
COO	6.833	0.816	With Complete Independence
SOP	6.792	0.833	With Complete Independence
SOQ	6.792	0.833	With Complete Independence
SOR	6.750	0.847	With Complete Independence
FIM	5.855	1.558	With Modified Independence

Table 10 presents with the means and standard deviation of each variable under Functional Mobility which shows the respondents level of disability as well as a change in respondents status in response to rehabilitation in terms. The overall mean is 5.855 with an SD of 1.558 which is interpreted as With Modified Independence. This means the respondents’ status is modified independence. This finding is supported by Reid et al. (2023) which stated that Physical therapy plays a crucial role in enhancing functional mobility and promoting independence in various patient populations. PT interventions can

help improve the functional mobility in patients with age-related mobility disabilities in the geriatric population. This further affirms the findings of the current study as most respondents have already been receiving Physical therapy interventions.

OBJECTIVE 4.

Table 11. Contingency Table of Relationship between Functional Mobility and Quality of Life

Relationship Between Functional Mobility To The Following Quality of Life Variables	Contingency Coefficient	P-Value	Interpretation
PF3-PF12	0.707	0.008	Significant at 1%
RLP13-RLP19	0.480	0.206	Not Significant
F23-EWB30	0.620	0.454	Not Significant
P20-P22	0.714	0.202	Not Significant
SF32-GH36	0.529	0.979	Not Significant

Table 11 presents the relationship between Functional Mobility and Quality of Life. The findings indicate that there is no relationship between Functional Mobility and the following Quality of Life variables: Role Limitations due to Physical Health, Role Limitations due to Emotional Problems, Energy/Fatigue, Pain, and General Health. This implies that functional mobility is not associated with the variables on the quality of life.

Role Limitations due to Physical Health assesses whether the respondents experienced problems with work or other regular daily activities as a result of physical health issues. Similarly, Role Limitations due to Emotional Problems evaluates the same types of limitations but due to emotional problems. Energy/Fatigue measures how often respondents feel energetic or fatigued, while Pain examines the intensity and interference of pain with normal activities. Furthermore, General Health provides a broad view of respondents' perceived overall health.

As stated above, the findings show that there is no relationship between Functional Mobility and the aforementioned quality of life variables. This indicates that changes in functional mobility are not related to changes in role limitations, energy levels, pain or general health. Specifically, improvements in functional mobility does not necessarily reduce limitations due to physical health issues or emotional problems. Moreover, changes in functional mobility do not correlate with how often respondents feel energetic or fatigued. Additionally, there is no significant connection between the level of functional mobility and the intensity of pain. Lastly, perceived general health does not have a significant association with functional mobility.

The absence of a significant relationship implies that functional mobility and these quality of life variables are not directly related. One of the possible reasons is that different sets of factors influence both functional mobility and quality of life. Functional mobility might be more directly impacted by physical rehabilitation and exercise. Meanwhile, quality of life extends beyond physical rehabilitation and includes emotional support, counseling, and pain management.

This data corresponds with a study by de Vries et al. (2012) noted that physical therapy exercise has a positive influence on functional mobility, which is specifically significant for geriatrics who are already physically impaired. However, study did not find a significant effect on the quality of life of said

population. On the other hand, a study by Brovold et al. (2012) assessed the influence of a combined counseling and exercise program on Quality of Life in geriatric patients attending a day hospital and continuing exercise at home. The program included counseling, balance and progressive resistive training, and support from a physical therapist. After three months, 77 participants were tested and results showed significant benefits in terms of quality of life, specifically in energy/fatigue and pain, as measured by the SF-36.

These studies support the findings that functional mobility and quality of life are not associated with each other and are influenced by different factors. Although physical exercise can improve functional mobility, a comprehensive approach that includes counseling, emotional support, and other supportive interventions is essential to improve the quality of life.

Table 11 also emphasized that there is a relationship between the Functional mobility to the variables PF3-PF12 at 1% level of significance. This implies that the functional mobility is associated with the variables.

The Physical Functioning domain of the SF-36 evaluates how limited the respondents are in certain activities because of their health. As shown in the table above, physical functioning has a relationship with the Functional Mobility variable. Changes in functional mobility does correlate with the physical functioning status of the respondents or how limited the respondents are in certain activities due to health.

The existence of a substantial correlation implies a direct association between these quality of life factors and functional mobility. The fact that the variables affecting functional mobility and quality of life coincide is one potential explanation. Exercise and physical therapy can have a direct impact on functional mobility and improve overall quality of life.

Along with this, a study by Sunde et al. (2021), physical function and physical health-related quality of life (HRQOL) are closely associated. This suggests that interventions meant to improve physical function may also improve physical HRQOL. However, the report made no mention of any particular influence. Furthermore, the research by Fristedt et al. According to BMC Geriatrics (2022), quality of life is correlated with physical performance as it relates to physical function (grip strength, chair stand, gait speed, and balance). Their findings demonstrated that, across the board for the sample, grip strength—an additional measure of weakness—was correlated with functional mobility. However, gender differences found in past research had no bearing on the investigation.

OBJECTIVE 5.

Table 12. Relationship between demographic profile and the Quality of Life and Functional Mobility

QoL and FIM	Demographic Profile				
	Age	Sex	DOT	Freq	Commor
Quality of Life					
PF3-PF12	0.561 (0.004)	0.235 (0.497)	0.373 (0.144)	0.299 (0.672)	0.299 (0.308)
RLP13-RLE19	0.117 (0.562)	0.000 (1.000)	0.062 (0.759)	0.248 (0.456)	0.129 (0.525)
E/F23-EWB31	0.381 (0.253)	0.532 (0.024)	0.284 (0.550)	0.417 (0.537)	0.136 (0.929)

P21-P22	0.336 (0.549)	0.481 (0.124)	0.231 (0.853)	0.503 (0.422)	0.474 (0.138)
SF20,32, GH1, GH33-GH36	0.378 (0.405)	0.245 (0.820)	0.298 (0.674)	0.526 (0.328)	0.438 (0.222)
Functional Mobility	0.611 (0.014)	0.281 (.841)	0.560 (0.052)	0.460 (0.777)	0.350 (0.647)

Physical Functioning

There is no significant relationship between items PF3-PF12 in Quality of Life to the demographic profile: sex, duration of therapy, frequency of PT session, and comorbidity. These demographic factors include sex, the duration of therapy, the frequency of physical therapy (PT) sessions, and the presence of comorbidities. The items PF3-PF12 are a subset of questions within a larger QoL assessment tool, designed to measure different aspects of an individual's physical, emotional, and social well-being. The analysis found no significant relationship, meaning that changes or differences in the demographic factors listed do not have a measurable impact on the responses to these specific QoL items. In other words, variations in sex, duration of therapy, frequency of PT sessions, and comorbidities do not significantly affect how individuals respond to items PF3-PF12 in the Quality of Life questionnaire. This finding suggests that, within the scope of this study, these demographic factors do not need to be major considerations when interpreting these specific QoL items.

A study by Wood et al. (2005) utilized the same research instrument and revealed poorer physical function in older females as compared with males. However, it has a marginal main effect on the PF subscale ($P < 0.10$). Therefore, it is difficult to rule out the possibility that females report lower physical aspects of quality of life as compared with age-matched males with a similar health history. A total of 108 participants who are 70 years old and above were gathered to answer the research instrument. In comparison to the current study's 24 participants, which likely influenced the results. The lack of definitive evidence in Wood et al.'s study further affirms the current study's findings that more investigation is needed because of a lack of evidence to indicate a conclusive relationship between sex and physical function.

Meanwhile, evidence has been found that duration of physical therapy does not influence the physical function of geriatric respondents. Moreover, the study of Auais et al. (2012) extended physical therapy exercise program did not reach significance on the PF subscale of the SF-36. This further affirms the findings of the current study, however, these similar results may be due to a shared limitation between the studies - differences in intervention parameters of the respondents.

When it comes to frequency of PT sessions and physical function, a study by Minitama et al. (2019) contradicts the current study's findings stating that the frequency of PT sessions does cause significant improvements in physical function. The study involved 43 patients who received supervised PT twice a week (P2 group) and 38 patients who received PT once a week (P1 group), all following the same exercise program over a 6-week period. Differences in methodologies, such as varying duration of physical therapy and differences in the treatment programs administered may be responsible for the contradicting results of both studies.

Furthermore, a study conducted by Amasene et al. (2022) concluded that a multimorbidity index weighted against current Short-Form-36 physical functioning strongly predicts long-term physical function decline. Their study involved 18,612 geriatric participants. Firstly, the research designs differ

significantly as the current study utilized a descriptive-correlational approach, whereas Amasene et al. employed a prospective cohort design. Furthermore, the discrepancy in participant numbers is notable, with the current study including only 24 participants.

However, there is a strong statistical relationship at 1% level of significance between the age of respondents and their responses to items PF3-PF12 in the Quality of Life (QoL) questionnaire. Age can influence various aspects of life, including health and well-being. Items PF3-PF12, specific components of a larger QoL assessment, measure different dimensions of an individual's quality of life, such as physical health, emotional well-being, and social interactions. The "1% level of significance" ($p < 0.01$) is a stringent criterion in statistical analysis, meaning there is less than a 1% probability that the observed relationship is due to chance. We can be more than 99% confident that the relationship between age and the responses to items PF3-PF12 is real and not random. This significant relationship underscores the importance of considering age in QoL assessments. For researchers, it highlights age-related factors as crucial in analyzing QoL data, suggesting that age greatly influences how individuals perceive their quality of life. Therefore, the relationship between age and QoL items PF3-PF12 should be an important consideration in both research and practical applications.

A study by Wang et al. supported these findings that physical function declines with age. A total of 1,365 participants in the Chinese Longitudinal Healthy Longevity Survey were assessed to see the relationship of age and physical function. A negative correlation between the two factors are noted because as age increases, physical function of the geriatric respondents decreases.

Role Limitations due to Physical Health

There is no significant relationship between items RLP13-RLP16 in Quality of Life to the demographic profile: age, sex, duration of therapy, frequency of PT session, and comorbidity. These demographic factors include age, sex, the duration of therapy, the frequency of physical therapy (PT) sessions, and the presence of comorbidities. The items RLP13-RLP16 are a subset of questions within a larger QoL assessment tool that evaluates whether specific problems with work or other regular daily activities occurred as a result of physical health. The analysis found no significant relationship, meaning that changes or differences in the demographic factors listed do not have a measurable impact on the responses to these specific QoL items. In other words, variations in age, sex, duration of therapy, frequency of PT sessions, and comorbidities do not significantly affect how respondents respond to items RLP13-RLP16 in the SF-36 questionnaire. This finding suggests that, within the scope of this study, these demographic factors do not need to be major considerations when interpreting these specific QoL items.

The current studies present differing results, possibly due to the variation in sample sizes, with the current study having fewer respondents compared to the authors study. The data corresponds with a study conducted by Gray et.al. (2018) reported in the qualitative study on participants of 50 or higher years of age that as the participants' ages increase, they ignore having an active lifestyle; that is, their physical activity levels start to decrease since they consider becoming tired more.

The differing results in the current study may be attributed to the smaller sample size compared to the authors study, emphasizing how variations in sample size can influence research outcomes. Weidner et. al (2015) reported that gender differences in physical health impact role limitations in geriatric patients. Men tend to have more health- damaging behaviors, while women generally fare better in terms of health outcomes. Men are more likely to engage in health-damaging behaviors such as smoking, excessive

alcohol use, and unhealthy eating habits, which can have a negative impact on their physical health. Meanwhile, the current study's findings differ, possibly due to the smaller sample size compared to the authors study, highlighting the impact of varying sample sizes on research outcomes. In the study of Koval et. al. (2020) the duration of physical therapy significantly impacts physical health in geriatric patients. The research suggests that the duration of physical therapy interventions can effectively improve independence in daily activities. The study highlights the importance of active engagement and cooperation in therapeutic programs, as individuals with a higher level of therapeutic alliance showed more significant improvements in their physical status compared to those with a low level of engagement. However, the current study's findings differ, possibly due to the smaller sample size compared to the authors study, highlighting the impact of varying sample sizes on research outcomes. Furthermore, a study by Keenly et. al. (2022) contradicts the current study's findings and indicated that more frequent physical therapy (PT) visits were associated with a higher likelihood of functional improvement and achieving both outcomes combined. Patients who received over 7 PT visits per week had the highest adjusted relative risk for functional improvement compared to those with fewer visits, indicating a positive correlation between PT visit frequency and functional outcomes. Moreover, in the Kriegsman et. al (2007) comorbidities in geriatric patients play a significant role in influencing role limitations due to physical health. Comorbidity, the presence of multiple chronic diseases in an individual, is linked to a higher prevalence of physical limitations and decline in physical functioning among geriatric patients. However, the impact of comorbidity can vary depending on the specific chronic diseases present.

Role Limitations due to Emotional Problems

There is no significant relationship between items RLE17-RLE19 in Quality of Life to the demographic profile: age, sex, duration of therapy, frequency of PT session, and comorbidity. These demographic factors include age, sex, the duration of therapy, the frequency of physical therapy (PT) sessions, and the presence of comorbidities. The items RLE17-RLE19 are a subset of questions within a larger QoL assessment tool that evaluates whether specific problems with work or other regular daily activities occurred as a result of emotional problems. The analysis found no significant relationship, meaning that changes or differences in the demographic factors listed do not have a measurable impact on the responses to these specific QoL items. In other words, variations in age, sex, duration of therapy, frequency of PT sessions, and comorbidities do not significantly affect how respondents respond to items RLE17-RLE19 in the SF-36 questionnaire. This finding suggests that, within the scope of this study, these demographic factors do not need to be major considerations when interpreting these specific QoL items.

Additionally, a study by Annet de Lange et al (2006) examine whether the age groups experienced the same effects of these psychosocial work characteristics on respondents' mental health across time. The overall group analyses revealed no significant effects of the variables age, age squared, and of the job characteristics etc. Only a significant effect of skill discretion was found in explaining company satisfaction. Researchers may conclude from this first step in the authors analyses that calendar age did not moderate the relation between work and mental health.

Meanwhile, a study conducted by Masoomah Shahnava (2017) contradicts the current study's findings resulting in a significant relationship between sex and functional limitations associated with depression,

anxiety, and emotional problems in US adults. Data collection instruments included individual particulars and the Cyberia-Shrink Emotional Intelligence questionnaire using a complete enumeration technique with specific criteria. Differences in methodologies, such as instruments used and no. of respondents according to the criteria may be responsible for the contradicting results of both studies.

In accordance with the research findings of Alison Beck et. Al (2017), there is no significant relationship between the duration of therapy and improvements in emotional health, specifically in terms of role limitation. Studies have shown that the number of therapy sessions, therapy length, and treatment intensity (sessions per week) did not correlate with therapeutic gains in emotional health.

A study by Dorly J. H. et. Al (2006) concludes comorbidities have a significant impact on a person's role limitation due to emotional problems. Research indicates that comorbidity is associated with a higher prevalence of physical limitations, decline in physical functioning, and a higher level of depressive symptomatology, leading to clinically relevant depression. In contradiction, the results of the current study indicating no correlation between comorbidity and role limitation due to emotional problems could be caused by several factors.

Energy/Fatigue

There is no significant relationship between items E/F23, E/F23, E/F23, & E/F23 in Quality of Life to the demographic profile: age, duration of therapy, frequency of PT session, and comorbidity. These demographic factors include age, sex, the duration of therapy, the frequency of physical therapy (PT) sessions, and the presence of comorbidities. The items E/F23, E/F23, E/F23, & E/F23 are a subset of questions within a larger QoL assessment tool that evaluates how much of the time the respondents felt they were full of pep (E/F23), energy (E/F27), worn out (E/F29) and tired (E/F31). The analysis found no significant relationship, meaning that changes or differences in the demographic factors listed do not have a measurable impact on the responses to these specific QoL items. In other words, variations in age, sex, duration of therapy, frequency of PT sessions, and comorbidities do not significantly affect how respondents respond to items E/F23, E/F23, E/F23, & E/F23 in the SF-36 questionnaire. This finding suggests that, within the scope of this study, these demographic factors do not need to be major considerations when interpreting these specific QoL items.

This study contradicts by Tralango (2003) that the data clearly indicates that fatigue is a common experience in older individuals. The results of the current study indicates no correlation between age and energy/Fatigue could be caused by several factors.

This contradicts the study by Kim et. al (2021) the intervention duration may be a factor affecting outcomes. Longer intervention periods were related to positive effects. Most fatigue management programmes with inconsistent results included in our review ranged from 2 to 12 weeks in duration. These short durations might not be sufficient for positive effects on fatigue symptoms. Further research is needed to determine the optimal type, duration, and intensity of a fatigue self-management exercise. The results of the current study indicating no correlation between duration of therapy and energy/fatigue could be caused by several factors.

This study contradicts Penner et.al (2017) concludes that fatigue is a complex condition that can emerge as a symptom or a comorbidity of a disease. Disentangling the origin and nature of fatigue in patients with these diseases presents a challenge and often fails to achieve an unambiguous assignment of fatigue. The results of the current study indicate no correlation between comorbidity and energy/Fatigue could be caused by several factors.

A study by Karges et. al (2009). These findings suggested geriatric patients have an impact on the rehabilitation process as evidenced by the improved FIM scores at discharge. Individuals who received inpatient rehabilitation for stroke at this facility stayed just over 2 weeks and improved on average by 20 points on the FIM. The patients in this study were seen for skilled OT, PT, and ST for about 30 minutes per session, 1.5 times per day, and received therapy services for 5 to 6 days per week on average. Future prospective research investigating the specific types of therapeutic interventions provided by each rehabilitation discipline is warranted in order to gain a clearer understanding of the effectiveness of physical therapy interventions.

However, there is a strong statistical relationship at 5% level of significance between the sex of the respondents and energy/fatigue. The "5% level of significance" ($p < 0.05$) is a stringent criterion in statistical analysis, meaning there is less than a 5% probability that the observed relationship is due to chance. We can be more than 95% confident that the relationship between sex and the responses to energy/fatigue is real and not random. This significant relationship underscores the importance of considering sex in QoL assessments. For researchers, it highlights sex as crucial in analyzing QoL data, suggesting that sex greatly influences how respondents perceive their quality of life. Therefore, the relationship between sex and items E/F23, E/F23, E/F23, & E/F23 should be an important consideration in both research and practical applications.

A study by Russ et. al (2003) found that women fatigued less than men in FF conditions, but not during I, and that the sex differences in fatigue were roughly paralleled by differences in central activation. This supports the results of the current study indicating there is correlation between sex and energy/Fatigue.

Emotional Well-being

There is no significant relationship between items EWB24, EWB25, EWB26, EWB28, & EWB30 in Quality of Life to the demographic profile: age, duration of therapy, frequency of PT session, and comorbidity. These demographic factors include age, sex, the duration of therapy, the frequency of physical therapy (PT) sessions, and the presence of comorbidities. The items EWB24, EWB25, EWB26, EWB28, & EWB30 are a subset of questions within a larger QoL assessment tool that evaluates how much of the time the respondents felt nervous (EWB24), down (EWB25), calm and peaceful (EWB26), downhearted and blue (EWB28), and happy (EWB30). The analysis found no significant relationship, meaning that changes or differences in the demographic factors listed do not have a measurable impact on the responses to these specific QoL items. In other words, variations in age, sex, duration of therapy, frequency of PT sessions, and comorbidities do not significantly affect how respondents respond to items EWB24, EWB25, EWB26, EWB28, & EWB30 in the SF-36 questionnaire. This finding suggests that, within the scope of this study, these demographic factors do not need to be major considerations when interpreting these specific QoL items.

The study by Zacher & Rudolph, (2022) suggests that emotional well-being in older adults at work is influenced by experienced incivility, with more intense stressors leading to lower well-being among older workers. While age may impact emotional experiences at work, the presence of stressors like incivility can play a crucial role in determining emotional well-being, indicating that emotional well-being in older adults at work is not solely related to age.

In line with this, a study of Malik et al., (2022) showed that among working older adults, work stress is strongly linked to socioeconomic and health concerns, with older adults with multiple morbidities having higher likelihood of suffering work stress.

Furthermore, Waldman-Levi et al.'s (2020) study emphasized the significance of emotional functioning in later life by highlighting the important impact that emotional elements, along with cognition and hope, have on older individuals' wellbeing and participation. Even while physical therapy is essential to the care of older persons, the frequency of physical therapy sessions may not be the only factor influencing the emotional wellness of healthcare professionals who provide these services.

However, there is a strong statistical relationship at 5% level of significance between the sex of participants and emotional well-being. The "5% level of significance" ($p < 0.05$) is a stringent criterion in statistical analysis, meaning there is less than a 5% probability that the observed relationship is due to chance. We can be more than 95% confident that the relationship between sex and the responses to emotional well-being is real and not random. This significant relationship underscores the importance of considering sex in emotional-wellbeing assessments. For researchers, it highlights sex as crucial in analyzing QoL data, suggesting that sex greatly influences how respondents perceive their quality of life. Therefore, the relationship between sex and items EWB24, EWB25, EWB26, EWB28, & EWB30 should be an important consideration in both research and practical applications.

A study by Kieny et al. (2021) supports this findings as it stated that gender plays a significant role in influencing the emotional well-being of geriatric patients. Findings from the study have shown that older women tend to have lower levels of emotional well-being compared to older men. Meanwhile, a study by Yadav (2021), considered additional individual characteristics and life circumstances beyond age, as a result, this gender difference in emotional well-being is attenuated, suggesting that women's disadvantage may be linked to less favorable life circumstances.

Pain

There is no significant relationship between items P21-P22 in Quality of Life to the demographic profile: age, sex, duration of therapy, frequency of PT session, and comorbidity. These demographic factors include age, sex, the duration of therapy, the frequency of physical therapy (PT) sessions, and the presence of comorbidities. The items P21-P22 are a subset of questions within a larger QoL assessment tool that evaluates how much pain the respondents felt and how much did pain interfere with normal work (including both work outside the home and housework). The analysis found no significant relationship, meaning that changes or differences in the demographic factors listed do not have a measurable impact on the responses to these specific QoL items. In other words, variations in age, sex, duration of therapy, frequency of PT sessions, and comorbidities do not significantly affect how respondents respond to items P21-P22 in the SF-36 questionnaire. This finding suggests that, within the scope of this study, these demographic factors do not need to be major considerations when interpreting these specific QoL items.

As stated by a certain epidemiological research, the prevalence of pain increases with age, and being older is associated with a higher risk of developing persistent pain and not fully recovering from it. While aging appears to be associated with increased pain perception thresholds (requiring a more intense stimulus to be felt), aging has no effect on pain tolerance thresholds (the stimulus intensity that can be tolerated is unaffected) Daguet et al., (2020). The research by Thielke et al. (2012) and Daguet et al. (2020) suggests that while age may increase pain perception thresholds, the relationship between aging and pain is complex and not straightforward, indicating the need for a nuanced understanding of pain management in elderly patients.

In Bernades et al., (2021) article, most of the human pain research neither analyzes nor reports

sex/gender differences, and the majority of current pain theories do not take these issues into account. Less than 20% of papers in Pain from 2012 to 2021, according to a systematic evaluation, provided data broken down by sex. Bernades et al. (2021) highlight that most pain research does not account for sex/gender differences, with fewer than 20% of studies from 2012 to 2021 reporting sex-specific data. Sampling biases persist, with women overrepresented in clinical studies and men in experimental studies. While occupational factors are linked to pain, gender-specific impacts remain unclear.

In the study of, Richard & Durand (2019) investigated the factors that led to older workers continuing to work despite musculoskeletal pain. They found that both work-related and personal factors, such as flexibility and feeling useful and recognized by peers, affected the decision to stay at work. Furthermore, Morrissey et al.'s (2014) study emphasized the need for palliative social work responsibilities in reducing pain and suffering by highlighting the beneficial correlations between pain and multimorbidity, chronic disease, and older persons' education. These results imply that although chronic pain is common in older persons, comorbidities may not always be a direct factor in the decision to continue working through pain; rather, a variety of personal and work-related factors may have an impact.

Corresponding to this, according to a study by Rundell et al. (2015), there was no significant correlation between the length of physical treatment and back-related impairment scores in older persons with back pain. Furthermore, Schulz et al. (2019) conducted a clinical trial on older adults with low back pain and found that adding spinal manipulation or supervised rehabilitative exercise to home exercise did not improve pain or disability in the short- or long-term. These results point to the complexity of factors influencing pain management and functional progress in older persons, raising the possibility that physical therapy length may not always be correlated with pain outcomes in this population.

Social Functioning

There is no significant relationship between items SF20 & SF32 in Quality of Life to the demographic profile: age, sex, duration of therapy, frequency of PT session, and comorbidity. These demographic factors include age, sex, the duration of therapy, the frequency of physical therapy (PT) sessions, and the presence of comorbidities. The items SF20 & SF32 are a subset of questions within a larger QoL assessment tool that evaluates to what extent physical health or emotional problems interfered with normal social activities with family, friends, neighbors, or groups and how much of the time has physical health or emotional problems interfered with social activities (like visiting with friends, relatives, etc.)? The analysis found no significant relationship, meaning that changes or differences in the demographic factors listed do not have a measurable impact on the responses to these specific QoL items. In other words, variations in age, sex, duration of therapy, frequency of PT sessions, and comorbidities do not significantly affect how respondents respond to items SF20 & SF32 in the SF-36 questionnaire. This finding suggests that, within the scope of this study, these demographic factors do not need to be major considerations when interpreting these specific QoL items.

As reported by Zhaoyang et al (2018), prevailing research suggests that social relationships get better with age. However, this evidence is largely based on studies with lengthy reporting intervals. These age effects became non-significant after accounting for contextual factors such as race, gender, education, employment status, family structure, and living arrangement.

Meanwhile, a study conducted by Afshar et al. (2017), states that there is no significant difference between social function in older men and women. Supported by this study, Soyeon et al. (2021) stated that gender-specific differences in the association between social function have been observed, with

factors like marital status, religious status, and depression playing varying roles for men and women. Studies have shown that there is no significant relationship between social functioning and the duration of physical therapy. A study by Sanchez et al. (2001) found that there is no significant association between the duration of physical therapy and social functioning improvements. This suggests that while physical therapy can be beneficial for physical health, its impact on social functioning may not be directly proportional to the time spent in therapy.

Research indicates that social functioning in older adults is influenced by various factors, but the frequency of physical therapist visits may not hold significance in this regard. Studies by Johnson et al. (2022) state that Physical therapists (PTs) were consulted to address functional deficits during hospitalization, but the effect of PT visit frequency on patients' outcomes is not clear. PT visit frequency was categorized as ≤ 2 , $>2-4$, $>4-7$, >7 visits/week. Functional improvement was defined as ≥ 5 -point improvement in Activity Measure for Post-Acute Care mobility score. With these findings, the authors concluded that more frequent PT visits during hospitalization may facilitate functional improvement. For all patients and within subgroups, the higher frequency was also associated with a greater likelihood of achieving outcomes. This study contradicts the current study findings due to the lack of sample size, differences in patient demographics, health status, and baseline functional abilities that impact the outcomes.

Research findings of Radosavljevic et al. (2016), pointed out that the social functioning values measured by the SF-36 in the elderly are not significantly influenced by the type of observed impairment (musculoskeletal, neurological, and cognitive), indicating that there is no significant relationship between these comorbidities and social functioning.

General Health

There is no significant relationship between items GH1, GH33-GH36 in Quality of Life to the demographic profile: age, sex, duration of therapy, frequency of PT session, and comorbidity. These demographic factors include age, sex, the duration of therapy, the frequency of physical therapy (PT) sessions, and the presence of comorbidities. The items GH1, GH33-GH36 are a subset of questions within a larger QoL assessment tool that evaluates the perceived overall health of the respondents. The analysis found no significant relationship, meaning that changes or differences in the demographic factors listed do not have a measurable impact on the responses to these specific QoL items. In other words, variations in age, sex, duration of therapy, frequency of PT sessions, and comorbidities do not significantly affect how respondents respond to items GH1, GH33-GH36 in the SF-36 questionnaire. This finding suggests that, within the scope of this study, these demographic factors do not need to be major considerations when interpreting these specific QoL items.

However, as stated by Dávila et al. (2020), age is significantly correlated with general health status, as evidenced by various studies. In Iran and Sweden age is associated with general health, with older individuals experiencing more health challenges (Armanmehr, 2016). Furthermore, a study focusing on self-rated health status among older Jews and Arabs highlighted age as a significant factor influencing poor self-rated health, along with other determinants like ethnicity, education level, and chronic diseases (Rozani, 2022).

As indicated by Saleh et al. (2023), several sociodemographic characteristics, such as age, race, education, married status, and income, were found to be strong predictors of reported health status. However, gender was not found to be a significant predictor of health. Additionally, study by Ilić et al.

(2021) found that while there are gender differences in self-reported health status among older populations, the correlation between gender and self-rated health status is influenced by various socioeconomic determinants rather than solely by sex.

Gelisanga's (2023) time motion study on physical therapy care in an inpatient setting, found that the duration of care for patients with musculoskeletal and neurological conditions did not show a significant correlation with general health in SF-36. The findings suggest that the duration of physical therapy treatments may not directly correlate with improvements in general health perception as measured by the SF-36 questionnaire.

A study by El Hayek et al. (2023) found that the frequency of physical therapy interventions per week did not show significant differences in outcomes related to general health status. However, according to Keeney et al. (2022), physical therapy treatment session frequency per week has been shown to correlate with general health status in various patient populations. Studies have indicated that more frequent physical therapy visits during hospitalization are associated with greater functional improvement and higher rates of discharge home. Additionally, according to Vargas et al. (2015), people with chronic musculoskeletal disorders found that participating in a multimodal physiotherapy program two or three times a week led to improvements in health-related quality of life over a one-year period.

Functional Mobility

There is no significant relationship between Functional Mobility to the demographic profile: sex, duration of therapy, frequency of PT session, and comorbidity. These demographic factors include sex, the duration of therapy, the frequency of physical therapy (PT) sessions, and the presence of comorbidities. The FIM Assessment was utilized to determine the functional mobility of the respondents. The analysis found no significant relationship, meaning that changes or differences in the demographic factors listed do not have a measurable impact on the responses to functional mobility. In other words, variations in sex, duration of therapy, frequency of PT sessions, and comorbidities do not significantly affect how geriatrics respond to functional mobility. This finding suggests that, within the scope of this study, these demographic factors do not need to be major considerations when interpreting functional mobility.

A study by Bennet et al. (2008) evaluated the functional status of 18,486 individuals stating that it did not differ by sex, indicating that functional mobility decreased with equal deceleration for men and women in geriatric patients. This contraindicates the findings of the current study stating that sex does not influence functional mobility. The discrepancy in the participants of the study may be a factor as to why the current study contradicted the findings of the study by Bennet et al. (2008).

Ni et al. (2017) evaluated the functional mobility of individuals aged 65 to 95. The findings stated that physical therapy programs provided over a long duration (up to 2.5 years) can provide improved recovery in geriatric patients. This contradicts the current study's findings showing that duration of physical therapy does not influence functional mobility. This may be due to a lot of factors. Firstly, the research design utilized in the study of Ni et al. (2017) is a quasi-experimental clinical trial, meanwhile the current study uses a descriptive-correlational design. Moreover, the varying number of respondents may also be a factor as Ni et al. (2017) had 430 participants, compared to the current study which only had 24 participants.

A study by Hartley et al. (2016) examined the association between average physiotherapy frequency and functional trajectories of patients aged 75 and older stating that high average frequency of physiotherapy

was associated with a greater functional mobility improvement. This contradicts with the current study's findings indicating that there is no correlation between frequency of PT session and functional mobility. This may be due to the difference in respondents and methodologies of the two studies. Hartley et al. (2016) gathered participants admitted to the same ward in the same hospital. Meanwhile, the current study has participants that are outpatients from different rehabilitation centers or are receiving homecare therapy.

When it comes to the findings that comorbidity does not influence functional mobility, the study of Ouedraogo (2020) supported the current study's findings stating that comorbidity influences major depression but does not affect functional mobility outcomes in elderly patients undergoing intensive rehabilitation.

However, there is a strong statistical relationship at 5% level of significance between the age of respondents and their functional mobility. Age can influence various aspects of life, including health and well-being. The "5% level of significance" ($p < 0.05$) is a stringent criterion in statistical analysis, meaning there is less than a 5% probability that the observed relationship is due to chance. We can be more than 95% confident that the relationship between age and the responses to functional mobility is real and not random. This significant relationship underscores the importance of considering age in functional mobility assessments. For researchers, it highlights age-related factors as crucial in analyzing functional mobility data, suggesting that age greatly influences functional mobility of individuals. Therefore, the relationship between age and functional mobility should be an important consideration in both research and practical applications.

This corroborates with the study of Samuel (2023) conducted a longitudinal assessment of functional mobility in geriatric patients aged older than 65 years. The results show that age influences functional mobility. This further affirms the findings of the current study and the need to focus more on these variables whenever handling geriatric cases.

CONCLUSION

This study highlights the demographic profile of geriatric respondents. Result showed that majority of respondents were female aged between 65 and 75. Physical therapy interventions were received three time a week for more than six months by most participants that had comorbidities.

In analyzing the relationship between functional mobility and quality of life, no significant association was found between multiple domains, namely roles limitations due to physical health, emotional problems, energy/fatigue, pain, and general health. However, there was a significant association between functional mobility and physical functioning. This indicates that improvements in physical function can directly influence the functional mobility in geriatric patients.

In connection with demographic factors, no significant association were found between sex, duration or frequency of physical therapy and the presence of comorbidities for both functional mobility and quality of life. Interestingly, the study showed that age appeared as a critical factor, showing a significant association not only with functional mobility and physical functioning, but also with emotional well-being and energy/fatigue. These results stress the importance of age-related factors in refining the practice of physical therapy to make the lives of geriatric respondents better.

RECOMMENDATIONS

This study has contributed to the understanding of the association between the demographic profile and

functional mobility to the quality of life of geriatric respondents receiving physical therapy intervention. As the study progressed, a few areas surfaced as suggested areas for future studies. The recommendations are as follows:

- a) This study's data was limited due to the small sample size who agreed to participate in the survey and interview. The respondents were exclusively geriatric patients who underwent physical therapy. It is suggested that a future study be carried out with a larger sample size. This will facilitate the collection of a more diverse range of viewpoints and enhance the overall results of subsequent studies.
- b) The respondents in this study were interviewed using the SF-36 questionnaire; however, because each domain had a distinct scaling, there was no overall outcome. Future research should adopt a consistent instrument strategy to obtain more precise data.
- c) To achieve more consistent results, the study should focus on geriatric patients with the same disease. This will allow for a more uniform analysis of each variable, reducing variability and improving the accuracy of the findings.
- d) To evaluate the impact of duration and frequency of physical therapy on functional mobility and quality of life, an experimental research design with a control group and an experimental group is recommended.

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