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Functional capacity and Exercise Tolerance In Aging: A literature review

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ABSTRACT :

The older adult population is increasing globally, with a projected increase to 2.1 billion by 2050. Although, this may show an improvement in life expectancy, it has several implications in aspects of life which include, social, health and economic sectors. Old age is coupled with a decline in physiological functions. The burden on the community is to help maintain independence and functionality in this demographic. Old age is associated with a decrease in skeletal muscle mass which affect the physical activity levels of older adults. Studies have utilized different tools to measure the level of activity and functionality in older adults. Most studies have assessed the impact of exercise interventions on functional capacity utilizing measurements for upper body strength, lower body strength, upper body flexibility, lower body flexibility, aerobic endurance, and motor agility and dynamic balance. The gold standard for exercise tolerance (ET) is peak VO_2 measured though cardiopulmonary testing. However, the equipment is expensive and in older adults with deteriorating motor control, it is not always feasible, hence the utility of 6-Minute Walk Test (6-MWT). This review seeks to exercise measures including; exercise tolerance, functional capacity and physical perfomance measures in older adult population, bringing to light any differences that may exist in rural- and urban-dwelling older adult population. Varied study designs were included as well as both sexes from the age of 50 and above.

Keywords: exercise tolerance, functional capacity, 6-MWT, older-adult, rural, urban, health,

Introduction

The old aged population (≥60 years old) is growing rapidly with a projected increase from 1 billion in 2020 to 1.4 billion by 2030 and approach 2.1 billion by 2050, which translates to nearly 1 in 5 people, globally(Zeng et al., 2025; Tao & Deng, 2025; Zhang et al., 2026). Aging is a phenomenon which is true for every human being and is accompanied by a decline in physical function (W. Chen et al., 2026). Reduced physical function enhances risk of falling, dependency, poor quality of life and increased mortality rate (Essomba et al., 2026). In Africa, the number of people aged 60 and above is expected to triple by 2050, and this demographic has a higher prevalence of morbidity and disability compared to other regions (Manyara et al., 2026). Intrinsic capacity impairments which includes locomotion, vitality, sensory capacity, cognition, and psychological domains were reported to be prevalent in older adults in Gambia, Zimbabwe, and South Africa, with more than 60% and 85% in 55-69 years and above 70s age groups, respectively (Zhang et al., 2026; Manyara et al., 2026).

Old age is a significant risk factor for chronic conditions such as cardiovascular, metabolic and neuromuscular diseases, hence the need for appropriate and easily accessible interventions to promote healthy aging and improve the quality of life in this population (Fuller et al., 2021; Tavares et al., 2026; Doksöz et al., 2026). Healthy aging describes a process of developing and maintaining functional ability that encourage well-being and functional independence in old age (Wu et al., 2026). Most older adults face challenges of mobility, balance, muscle strength and coordination (W. Chen et al., 2026). Regular physical exercise in older adults, therefore, helps to maintain muscle strength and endurance thereby, improving balance and coordination (Fotokian et al., 2026).

Despite the beneficial role of exercise, majority of older adults are physically inactive and may be unwilling to undertake activities as they are scared of falling, hence they do not meet the recommended activity levels (Fotokian et al., 2026; Doksöz et al., 2026). Approximately, 1 in 4 older adults experience a fall each year, which contribute to injury-related mortality rates in this population (Chen et al., 2026). Physical activity levels are also affected by a number of factors including, exercise tolerance normally indicated as functional capacity, perceived risk of injury and the environment (Doksöz et al., 2026). A conducive environment is a necessity for people to carry out physical activity to their optimum (Manyara et al., 2026).

The presence of a built environment significantly enhances physical activity due to availability of public sporting utilities providing the essential infrastructure for engagement (Niu et al., 2025). The community environment has an important role in supporting mobility in older adults by providing areas to improve their daily living and physical activities (Nam et al., 2025). Besides, being able to perform basic activities of daily living, mobility supports social relationships, engagement in community activities and promote a sense of independence (Vecchio et al., 2026).

Functional limitations affect over 30% of adults aged 65 and older globally, with physical function decline being a hallmark of aging that increases risk of falls, hospitalization, and mortality (Fan et al., 2025). Therefore, strategies are needed to halt or delay functional decline, and physical activity has been cited as a non-pharmacological tool to ameliorate several physical challenges associated with old age (Chen et al., 2026; Essomba et al., 2026). A comprehensive review of literature is of paramount importance to shade light on the physiological characteristics of old age hence the scope of this review. The associated factors and interventional modalities are discussed in the sections which follow as well as areas which needs more research.

Physiological characteristics of old age

Cardio-respiratory Changes

Old age is associated with persistent decline of physiological functions including cardiorespiratory fitness, which significantly affect the ability to carry out activities of daily living (ADLs) independently (Izquierdo et al., 2021). This is usually evidenced by reduced maximum cardiac output (CO) derived from maximum stroke volume and heart rate, and reduced inotropic cardiac reserve (Izquierdo et al., 2021; Ferrara et al., 2014) Studies have indicated that old age is linked to reduced β-adrenoceptor sensitivity influenced by alterations in G-protein and kinase activities which result in diminished cardiovascular response to sympathetic effect (Ferrara et al., 2014; Fuller et al., 2021). This is the underlying molecular mechanism for most structural and functional changes that occur in an old aged person's heart (Ferrara et al., 2014). After the age of 70 years, aerobic capacity decreases by more than 20% over subsequent 10-year span (Manning et al., 2024). Choi & Kim (2023), indicated that the decrease in cardiopulmonary function is proportional to the decrease in muscle mass. Older adults reveal cardiac and vascular remodelling characterized by lower peak heart rate, reduced left ventricular contractility, early diastolic filling rate, reduced arteriovenous O_2 difference (a-vO_2, reduced blood volume, increased rigidity of the myocardium and arteries as well as increased left ventricular end-diastolic volume (EDV) (Fuller et al., 2021). Coronary heart diseases (CHD), including acute myocardial infarction (AMI) and acute coronary syndrome are responsible for 80% deaths in older adults, worldwide (Choi & Kim, 2023). Therefore, it is important to encourage and develop strategies of cardiovascular training to prolong functionality in this population.

Skeletal muscle changes

Musculoskeletal system is of greater importance in providing mechanical support and biochemical signalling, hence its age-related changes pose significant challenges, with sarcopenia leading the cause for disability, frailty, and diminished health-related quality of life (L. Chen et al., 2025). Studies have indicated that skeletal muscle mass decreases with age (Choi & Kim, 2023). The reduction in muscle mass enhances the risk of functional decline in older adults (L. Chen et al., 2025). Mitochondrial dysfunction in the aging muscle is a significant contributor to reduced exercise performance, gait stability, and insulin sensitivity even among older adults who embark on physical activities (L. Chen et al., 2025). The effect of low muscle mass on insulin resistance result in poor glycaemic control (Choi & Kim, 2023). The mechanobiology of the locomotory system indicates that disuse of a muscle leads to atrophy whereas increased use promotes hypertrophy (Löppönen et al., 2025a). Sedentary behavior in older adult population contributes to decreased lean body mass percentage, reduced muscle mass and strength, and impaired balance control as well as walking performance (W. Zhang et al., 2024). Studies have shown that regular physical activity significantly improves glycaemic control, inflammation suppression, and maintains musculoskeletal function through increased bone density and joint flexibility (Niu et al., 2025). This supports the role of physical activity in ensuring functionality and better exercise tolerance outcomes in older adults.

Sarcopenia

The decrease of physical abilities and functional decline associated with old age can be attributed to sarcopenia (Essomba et al., 2026). Sarcopenia can be described as a progressive age-related loss in muscle mass, strength and quality affecting physical performance (Izquierdo et al., 2021; Choi & Kim, 2023). It arises from a complex interplay between a number of factors including, chronic inflammation, mitochondrial dysfunction, impaired neuromuscular signalling and reduced protein synthesis (Essomba et al., 2026). A study in Cameroon reported stronger associations between sarcopenia and specific intrinsic capacity components of locomotion and vitality (nutritional and energy-related disorders) (Essomba et al., 2026). Thus, sarcopenia significantly affects mobility and perfomance of physical activity which eventually lead to poor health outcomes.

Cognitive changes

Decreased cognitive function presents a critical vulnerability in older adult populations, ranging from subtle reductions in processing speed to serious impairments preceding dementia (Zheng et al., 2026). Old age is coupled with decreased dopaminergic (DA) tone in the striatal-hippocampal circuit, which compromises cognitive function (Tian et al., 2025). Social interactions and participation can promote cognitive and brain health, even amidst significant adversity (Simon et al., 2026). Physical activity increases protective effects on brain health which include increased brain angiogenesis, cerebral blood flow, hippocampal volume, neurogenesis and decreased neuroinflammation (Hernon et al., 2024). Motor and gait disturbances associated with higher level functional decline can be attributed to cerebrovascular lesions characterized by baseline lacunar infarcts and white matter hyperintensity in old age (Tsubota-Utsugi et al., 2017). Physical activity positively affects neuronal functions, since it promotes neurotrophic factor production and synaptic plasticity as well as decreasing brain inflammation and oxidative stress (Cammisuli et al., 2023). Therefore, exercise interventions are crucial for maintaining optimal cognition in older adults.

Frailty

Frailty is a state of decreased physiological reserve that makes individuals vulnerable to stress, potentially resulting in disability and increased mortality (Izquierdo et al., 2021). It is characterized by a decline in physiological functions across multiple organ systems (Doksöz et al., 2026). Its multisystem and multidimensional aspects include cognitive, social, and physical domains (Izquierdo et al., 2021; X. Zhang et al., 2025). Decreased aerobic fitness is associated with higher morbidity, mortality and also loss of independence, whereas low physical activity has been shown to be an independent predictor of mortality and disability, all outcomes of frailty (Bastone et al., 2015). Sedentary behaviour was reported to be associated with higher risks of physical frailty (Zhou et al., 2024). The participants with an exercise habit demonstrate lower risk of physical pre-frailty + frailty compared to those without an exercise habit (Yokote et al., 2023)

Exercise Tolerance

Exercise tolerance (ET) has been labelled, an independent risk factor for all-cause mortality and cardiovascular disease (Craighead et al., 2024). The graded exercise tolerance test (GxT) has been referenced in the diagnosis of clinical coronary heart disease (CHD) as it is inexpensive, easy to administer and safe (Shin et al., 2015). Exercise tolerance defined as the ability to perform physical activity and to achieve the expected exercise duration for a given age, is critical for enhanced physical activity, and prevention of injuries and complications (Kobayashi et al., 2024; Tanigawa et al., 2015). On the other hand, diminished ET is associated with increased physical frailty and higher mortality (Tanigawa et al., 2015). Although, different parameters can be used to report exercise tolerance, peak VO_2 has been shown to be a powerful and independent predictor of cardiovascular risk, surpassing classical risk factors, hence is considered the *gold standard* (Choi & Kim, 2023; Kobayashi et al., 2024). The person is instructed to walk as far as possible in 6 min, with walking aid if necessary (Tramontano et al., 2016a). Functional Fitness Test (FFT) or Senior Fitness Test (SFT) measures the following six fitness parameters, upper body strength, lower body strength, upper body flexibility, lower body flexibility, aerobic endurance, motor agility and dynamic balance (de Melo et al., 2014; Scarabottolo et al., 2017; Buriticá-Marín et al., 2023). The shuttle walk test (SWT) is also used to evaluate ET, the participants walk back and forth along a 10 m flat course and precedingly increase pace in accordance with audio signals until exhaustion (Tanigawa et al., 2015b). Studies have also utilized the short physical perfomance battery (SPPB) which was shown to predict mortality and nursing home admission in initially non-disabled older adults. It includes five-repeated chair stands, balance test and 3 m walking test (Van Holle et al., 2016; Tramontano et al., 2016; Löppönen et al., 2025). The 6 minute stepper test is another useful tool that allows more physiological variables to be measured during exercise (Jones, 2017a). Functional Reach Test (FRT) assesses problems with balance and risk of falls in the elderly, and tandem tests assess coordination, as well as static and dynamic balance in the elderly (Cwirlej-Sozanska et al., 2018). A treadmill is widely used for exercise tolerance test (ETT) (Choi & Kim, 2023). Physical performance assessments including 6 MWT, 30CS and TUG reveal information on strength, endurance, and mobility needed for maintaining physical independence in older adult age (Manning et al., 2024).

Determinants of Exercise Tolerance in Older Adults

An understanding of the physiological mechanisms that contribute to reduced exercise tolerance in older adults is vital for the development specialized interventions which target physiological components of peak VO_2 (Fuller et al., 2021). Exercise tolerance in older adults depends on the ability of skeletal muscles to extract delivered O_2. Reduced mobility and cognition can affect one's ability to perform self-care measures, for example, reduced lower-body strength hinders walking and cognitive decline foster non-adherence to medication (Wu et al., 2026). Peak oxygen consumption (peak VO_2) drops at a rate of 5 to 15% per decade from the age of 25, with the rate of decline increasing with each successive decade (Fuller et al., 2021). Physical activeness is also affected by gender, men score higher than women (Tao & Deng, 2025). Chronic conditions also pose a gender challenge to maintaining physical activities and participation, hence this significantly affect exercise tolerance (Ruiz-Garrós et al., 2025). Variations in socioeconomic status and living standards among older adults in different countries or regions or geographical areas affect exercise tolerance, with a general assumption that higher economic status is associated with better performance and better health (Zhou et al., 2024). Exercise interventions also influence ET outcomes, Craighead et al., (2024) demonstrated that six weeks of high-resistance inspiratory muscle strength training, significantly improved exercise tolerance as measured by an increase in total treadmill exercise time.

Environment and Physical Activity(PA)

Environment has a role to play in PA levels. Rural older adults living alone show poor self-rated health, decreased physical mobility, comorbidity issues, lack of a support system, high levels of loneliness, economically disadvantaged status, and severe self-neglect (Xi et al., 2026). Evidence from research suggests that urban-dwelling older adults are more cognitively competent that rural counterparts, whereas their rural-dwelling older adult are more functionally capable than urban counterparts (Li & Song, 2026). Home deaths are more prevalent in rural older adults due to issues of accessibility and availability of institutional facilities (Li & Song, 2026). Zhang et al. (2025) reports that older adults in rural China encounter challenges of access to healthcare resources, lower socioeconomic status and increased vulnerability to old age ailments. Rural-dwelling older adult often embark on traditional agricultural production for subsistence, which requires continued engagement in physical labor whilst urban-dwelling older adults lean more towards

social engagement (Tian et al., 2025). Contrary to reports which indicates high functionality in rural dwellers, intrinsic capacity which encompasses all physical and mental capacities was documented to be consistently higher in urban than in rural areas (Tian et al., 2025). In comparison with rural residents, urban residents have notable advantages which facilitate active aging, these includes socio-economic and infrastructure gaps between urban and rural areas (Tao & Deng, 2025). However, studies which quantitatively examine this role of environment in physical activity levels in geriatric populations is still limited. This is of paramount importance for development of interventions which are appropriate and specific in terms of time and geographical region of the geriatric population.

Table 1. 1 Interventional Studies

Author	Design(N)	Setting	Age	Investigation	Test	Findings
(Scarabottolo et al., 2017)	Longitudinal (30)	Institutionalized	≥ 60	Association between a systematic **physical exercise program** and functional capacity	*HGS* *TUG* *Standing Test*	Main statistical significance were found for the following functional tests: upper limb strength (training vs. control, ***p<0.05***) and chair lift test (training vs. control, ***p<0.05***).
(Cwirlej-Sozanska et al., 2018)	Randomized Clinical Trial (50)	Living In The Community.	≥60	Evaluate the effect of 16-week program consisting of **multifactorial physical exercise and health education (MEE)** on the functional status and postural stability	*SFT* *TUG* *Tandem Tests* *Functional Reach Test (FRT)*	The MEE group showed a significant improvement in the tandem tests (*TWT: **p<0.001;** TPT: **p<0.001***), balance (*FRT: **p<0.003***), and mobility (*TUG: **p<0.001***). This group also demonstrated significantly improved results for all components of the *SFT*, namely, endurance (2-MST: ***p< 0.001***), arm strength (Arm Curl: ***p<0.001***), leg strength (Chair Stand: ***p<0.001***), and flexibility (Back Scratch: ***p<0.004***, Chair Sit and Reach: ***p<0.002***).
(Sarinukul et al., 2021)	Pilot Randomized Control Trial (20)	Rural-Dwelling	≥60	Effects of continuous **bench stepping** on a 20-cm bench box	*6 MWT* *TUG*	Significant interactions between group and time in terms of SBP, DBP, 6MWT, and 5STS (all ***p<0.01*** except for 6MWT with ***p<0.05***). Nonetheless, the paired t-test indicated that the EG showed significant improvement in all outcomes from baseline (all ***p < 0.01*** except for 6MWT with ***p < 0.05***)
(Choi & Kim, 2023)	Single-Center, Retrospective Cross-Sectional (36)	Rural-Dwelling	≥65	Effects of a **cardiac rehabilitation (CR) exercise program** on skeletal muscle index (SMI) and cardiorespiratory fitness (CRF)	*Treadmill Test*	Significant increase in ***VO_{2max}*** measured after three months in Group A (19.25 to 23.0 mL/kg/min; ***p<0.01***), but there was no significant change in Group B (21.6 to 21.7 mL/kg/min). **MET** increased significantly in Group A (5.48±1.54 to 6.58±1.44; ***p<0.01***), whereas Group B showed no significant change (6.17±1.59 to 6.18±1.72).
(Buriticá-Marín et al., 2023)	Quasi-Experimental (4830)	Community-Dwelling	≥60	Effects of an **exercise program** on the physical capacities	*SFT*	Significant differences before and after the program in terms of the participants' physical capabilities (***p<0.05***), muscular strength and flexibility had a more significant mean difference and a large effect ***(>0.80***), except for *aerobic capacity*, which had a small effect
(Watanabe et al., 2025)	Randomized Controlled Trial (71)	Urban Community-Dwelling	≥ 60	Effects of a **12-week web-based, short-duration, and high-frequency light-intensity aerobic dance** exercise program on body composition, physical function, and PA levels	*Physical Function Battery*	Exercise group significantly improved the maximal walking speed by 0.10 m/s compared with the control group, with no significant between-group differences in body composition, PA levels, and other physical function outcomes.

Abbreviations: 6MWT-6-Minute Walk Test, SWT- Shuttle Walk Test, SPPB- Short Physical Perfomance Battery, SFT- Senior Fitness Test, HGS- Hand Grip Strength, TUG- Timed Up And Go test, 5STS- 5 x Sit To Stand Test, PA- Physical Activity, MET- Metabolic Equivalents, SBP-Systolic Blood Pressure, DBP-Diastolic Blood Pressure,2-MST-2-Minute Step Test, TPT-Tandem Pivot Test, TWT- Tandem Walk Test,

Table 1. 2 Other Factors Studied

Author	Design(N)	Setting	Age	Aim or Investigation	Test	Findings
(Ashe et al., 2007)	Cross-Sectional **(200)**	Community Dwelling	≥65	**Predictors** of physical capacity and participation	*6 MWT TUG*	The determinants for mean daily pedometer steps included mobility, body mass index (BMI), age and Chronic Disease Management Self-Efficacy Scale (***r^2=0.27; p=0.000***)
(Sugiura et al., 2013)	Observational **(406)**	Urban Community-Dwelling	≥65	**Handgrip strength** can predict functional decline in higher-level competence	*HGS Walking Speed*	After adjustment for age and body mass index (BMI), HGS significantly correlated with decline of higher-level competence in both sexes. Usual walking speed was significantly correlated with decline in higher-level competence only in women.
(De Melo et al., 2014)	Cross-Sectional **(60)**	Institutionalized	≥65	Relationship between functional fitness and **steps walked per day**	*Functional Fitness Test*	All FFT parameters, except upper body flexibility, were significantly associated with steps taken per day when comparing high walkers with low walkers.
(Dias et al., 2014)	Cross-Sectional **(20)**	Institutionalized	≥80	Characterize the **functional capacity**	*6 MWT Berg Scale Stabilometry*	The group at risk of falls had a lower HGS and shorter 6MWD compared with the group not at risk of falls. The obese group had higher values for stabilometric variables than the nonobese group. There was a positive and significant correlation between ankle joint mobility and physical capacity (***r = 0.47***)
(Tanigawa et al., 2015)	Cross-Sectional **(155)**	Community-Dwelling	≥65	Association between ET and **shoe-fit**	*SWT*	Poor heel-fit was significantly correlated with a low SWT score, even following adjustments for age, gender, 10mWT and FEV1 (***odds ratio: 0.25, 95% confidence interval: 0.07-0.95, p=0.04***).
(Tramontano et al., 2016)	Cross Sectional **(222)**	Rural-Dwelling	≥65	Effects of **nutritional status** on the physical performance and functional status	*SPPB 6 MWT*	After adjusting for potential confounders, malnourished individuals performed significantly worse than the other MNA groups in the SPPB *(p for trend=0.001)*, 6MWT and IADL *(p for trend< 0.0001* for both outcomes), but not in the ADL (*p for trend = 0.23)*
(Regan et al., 2016)	Prospective, Pre-Test Post-Test Pilot **(12)**	Retirement Living	≥80	Changes in physical activity and function in **transition to Retirement Living**	*Senior Fitness Test [SFT]*	Total PA decreased after the transition to retirement living ***(p=0.02).*** Reports of physical activity by type indicated that only activities of daily living decreased ***(p<0.01)*** although intentional exercise increased ***(p<0.03)*** with the transition. Endurance and strength also improved (***p < 0.05*** and ***p < 0.04***)
(Holle et al., 2016)	Cross-Sectional **(438)**	Urban Community-Dwelling	≥65	Moderating role of the **objective and perceived physical environment** on associations between adults' physical functioning and transport walking, recreational walking, and moderate-to-vigorous PA	*SPPB.*	In high-income, high-walkable neighbourhoods, there was a positive association between functioning and moderate-to-vigorous PA. No functioning & walkability interactions were observed for recreational walking, and none of the perceived environmental variables moderated the positive association between physical functioning and the physical activity outcomes.
(Jones, 2017b)	Longitudinal Cohort **(518)**	Tri-Ethnic UK	≥65	**6-min stepper test** (6MST) a measure of exercise capacity and a predicted value for aerobic capacity (VO_{2max})	*6 MST*	Step rate showed a strong positive correlation with measured VO_2 (***r=0.75, p<0.001***) and VO_2 was lower in women (male-female difference in VO_2=2.61 (95% confidence interval −3.6, −1.7)**ml/min/kg**; ***p < 0.001***). In 10 participants who completed a 6MST and a 6-MWT there was a strong positive correlation between walking rate

						and step rate (***r=0.77; p < 0.009***) and weaker positive correlations between the tests for measured VO_2 and peak heart rate
(Pérez-Sousa et al., 2021)	Cross-Sectional **(4416)**	Urban & Rural	≥60	Physical fitness mediates the association between **cognitive functioning and aging**	*Physical Fitness*	Age had an inverse relationship with cognitive function (***β=−0.110, 95% CI = −0.130; −0.100***) and it was also inversely associated with HGS (***β=−0.003, 95% CI = −0.005; −0.002***) and gait speed (***β= −0.010, 95% CI = −0.011; −0.009***). The indirect effects, which indicate that the effect of age on cognitive function is transmitted through mediators, showed that both gait speed (***β=−0.028, 95% CI =−0.036; −0.020***) and HGS (***β=−0.014, 95% CI =−0.024; −0.005***) were independent mediators of the detrimental effect of aging on cognitive function.
(Löppönen et al., 2025)	Longitudinal **(312)**	Community-Dwelling	≥75	Baseline physical capacity & PA	*SPPB*	Decline in SPPB was greater for low versus high **PA** profiles in both **PC** profiles (high PC***: B -0.61, SE 0.24, 95% CI -1.08, -0.15;*** low PC***: B -0.96, SE 0.35, 95% CI -1.62, -0.32***). No significant difference decline in 5xSTS time.

Implications for Public Health

Some studies have shown that people who are physically active can live 7 to 8 years longer than sedentary population (Nierwińska et al., 2023). Increased life expectance implies that health and social care systems should upskill to meet the needs of older adults to promote high quality of life towards the end of life (Li & Song, 2026). Improving end-of-life experiences requires targeted interventions in rural and urban contexts, respectively (Li & Song, 2026). More understanding of this urban-rural disparities is crucial for tailor-making healthy aging strategies among older adults in both urban and rural settings (Tian et al., 2025). Adequate nutrition, sleep hygiene, regular physical exercise, stress-free life, frequent medical check-ups, and participation in social activities by older adults maintains functional capacity (Rasheedu et al., 2025). Exercise has been noted as a pilar of effective interventions to manage frailty (Tou et al., 2024). Physical activity prevents functional decline, reduces cardiovascular deterioration, counteracts age-related muscle and bone loss, and decreases the risk of osteoporotic fractures in older adults (Lee et al., 2023). Therefore, public health policy should ensure strategies that promote physical activity such as open greener parks/space, safe environment, availability of walking aids and waiver of health care costs for older adults.

Declarations

I hereby declare that this submission is entirely my own work, in my own words, and that all sources used in researching it are fully acknowledged and all quotations properly identified.

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