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ORIGINAL

ROLE OF PHYSICAL ACTIVITY IN MANAGING CHRONIC DISEASES IN SOUTH AMERICAN ELDERLY POPULATIONS

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ABSTRACT

The aim of research is determining the role of physical activity related to the managing chronic diseases in south American elderly populations. This research covers the significance of physical exercise in controlling chronic diseases among senior people in South America. As the area grapples with demographic transitions and a rising aging population, knowing the significance of regular exercise becomes vital. Engaging in physical exercise is beneficial for managing a number of health issues, such as diabetes, mental health, musculoskeletal health, and cardiovascular health. For measuring the research used SPSS software and generate result included descriptive statistic, correlation coefficient, the model summary, also that explain the chi square analysis between them. The research study highlights the need for customized fitness regimens that include strength, flexibility, cardio, and balancing activities while considering specific medical issues. Public health campaigns and community-based activities are seen as essential elements in promoting an active ageing culture and improving the general well-being of senior citizens. South American cultures may actively contribute to disease prevention, disease management, and enhanced quality of life for their ageing populations by realising the many advantages of physical exercise. Overall result founded that direct also significant link of physical activity in managing chronic diseases in the south American. Building healthier and more resilient ageing communities in the area requires funding programmes that encourage and support seniors' active lifestyles.

KEYWORDS: Physical Activity (PA), Managing Chronic Diseases (MCD), South American (SA), Elderly Populations (EP)

1. INTRODUCTION

As we all are well familiar with this fact, physical activity is the key factor for maintaining better health conditions in every age, ranging from childhood to older. Physical activity helps to keep the body active, energetic, and young. In this study, we are going to overview how physical activity plays an important role in addressing the level of chronic diseases in South American Elderly Populations. When we go through the statistical values of the population in America, we come to know that almost 14 per cent of the whole population mainly consists of elderly people of age above 60 years. Because in this era of age, there is less punctual job routine or maybe retirement, which causes a remarkable decrease in the physical activity of these old people(Schutzer & Graves, 2004). The United States has the third-highest population of old people. As physical activity decreases in these old people, the level and intensity of chronic diseases increase at a fast pace. The most common chronic diseases in old people of South America can be listed as chronic obstructive pulmonary disease, Alzheimer's disease, Dementia, depression, the rate of heart failure, chronic kind of kidney diseases, diabetes, Ischemic stroke, heart diseases, arthritis, high levels of cholesterol, high blood pressure and others(Warburton, Nicol, & Bredin, 2006). The causes of these diseases are of various types, but all of these diseases are somehow related to diminished physical activity in older age. For example, all the diseases related to the lungs are merely because of less exercise or physical activity that results in constriction of lung tissues which is indirectly involved in less elasticity of lung tissue and problems of the respiratory tract(Booth, Gordon, Carlson, & Hamilton, 2000).

There is a recommendation for different types of exercises, such as resistance training and other aerobic exercises related to the upper and lower extremities, which can easily increase the endurance of those muscles that are present in the respiratory tract, thus improving health in the elderly population in South America. It has also been noted that the sleep-wake cycle is also disturbed in older people for various reasons. These reasons may include high levels of stress, depression, less sleep during adult age, and others. Such a disturbed sleep-wake cycle can also result in diseases like Alzheimer's disease and the other is Dementia(Li, White, O'Shields, McLain, & Merchant, 2019). Almost 12 percent of the elderly population in South America is affected by these two diseases. Alzheimer's disease is mainly related to any loss of memory or difficulty in thinking or solving any kind of problem, and Dementia is related to changes in the structure of the brain that affect normal daily activities. Both of these problems prevail in the elderly population, but the level and intensity of these diseases can be reduced by changing the physical activity (Booth, Roberts, & Laye, 2012). When there is a proper routine of exercise and physical activity in older age as well, there is a continuous supply of oxygen to the brain that results in better health of brain cells.

A change in diet plan is also necessary in old age because there is a need for supplements as well. The second most chronic disease in old age is the level of depression and stress. As old age also brings loneliness in those people, and that loneliness can result in stress and depression(Cudris-Torres et al., 2023). The high of depression has been seen not only in old age people but also in the youth population of South America. The level of stress and depression can be related to hormonal imbalances in the body, such as diminished levels of growth hormones, sex hormones, and others. For example, the balanced estrogen level in the female body not only maintains the reproductive cycle of the female body but also affects bone composition and toughness. The low levels of oxytocin and estrogen can result in arthritis and other bone-related problems(Schwartz et al., 2021).

Medical science has made it clear that exercise and physical activity effectively decrease stress and anxiety levels in the human body. A few minutes of exercise can produce dopamine in the body, which is considered a happy hormone and can reduce stress and depression (Kushwaha, Panchal, & Sachdeva, 2020). One of the most chronic diseases in old age people is heart-related diseases such as heart failure. The increasing and unceasing level of heart-related problems is somehow related to high cholesterol levels in the body. This high level of cholesterol in the body can form plaques in blood vessels which can cause stroke, hemorrhage, or even heart attack(Paudel, Owen, Owusu-Addo, & Smith, 2019). Good dietary habits and proper exercise in old age can balance the level of cholesterol in the blood. The other most chronic disease in old age is high blood pressure, which is also termed as hypertension. It is due to an imbalanced diet and improper physical activity patterns. This chronic problem can also be dealt with with proper physical activity and exercise. Diabetes is considered a slow killer in the elderly population of South America(Herdy et al., 2014). Mostly, we think that diabetes is caused by high sugar content in the diet, but science has made us realize that daily walking, body exercises, and other physical activities can control diabetes. The body's sugar level can also be balanced by a properly balanced diet in old age. All of these facts make us realize that physical activity is mandatory to prevent chronic diseases in old people and all ages of life. The South American government has taken few steps to prevent the unceasing and increasing level of chronic diseases in old people of South America. These steps include awareness of the importance of diet and physical activity for maintaining proper health and preventing chronic diseases in old people. This awareness will help old people maintain their health by following guidelines(Nelson et al., 2007).

2. Research Objective

The main objective of this study is to understand the importance of physical activity for the prevention of chronic diseases in elder population of South Americans. This study has also effectively explained the relationship of these

diseases with the daily lifestyle and how these diseases can be prevented by opting for proper exercise and physical activity in old age as well.

3. Literature review

Researchers claim that the onset of chronic diseases in elderly people increases the risk of disabilities. The disability in elderly people caused by the severity of chronic disorder poses adverse effects on the health of elderly people. Elderly people are advised to add PA and exercise-based activities daily. exercise makes elderly people physically fit and helps minimize the risk of complex diseases(Angulo, El Assar, Álvarez-Bustos, & Rodríguez-Mañas, 2020).studies explain that the number of NCDs-related diseases is rising in society. The death rates due to NCDs are higher all over the globe. Certain environmental and genetic factors are responsible for developing NCDs in people.to reduce the risk of NCD in elderly pollution effective strategies have been developed. The management strategies to reduce the onset of NCDs in elderly pollution prove very effective(Budreviciute et al., 2020). Also, the occurrence of NCD is reduced by advising people to add PA to their lifestyle. daily exercise-based activities increase a person's immunity and make him immune from viral infections.by indulging the elderly American pollution in PA their physical strength improves. the improved physical strength enhances the immunity of elderly people and makes them strong enough to deal with NCDs(Chastin et al., 2021).studies claim that lack of people indulgence in physical activities related programs results in physical inactiveness in them.the physical inactivates elderly pollution and develops serious chronic health problems.by making the elderly adhere to physical activity-related programs, the chances of chronic health problems' onset (Collado-Mateo et al., 2021).studies reveal that during the COVID-19 pandemic, elderly people were at greater risk of developing this virus.

To save the elderly during COVID-19, they were advised to stay home and maintain social distancing. Elderly people in American states were guided to add PA to their daily life routine while staying at home to improve their physical health during covid19 pandemic(Cunningham & O'Sullivan, 2020).studies claim that bad and altered eating habits in people result in osteoarthritis. osteoarthritis is a common problem in elderly people because of their poor dietary habits. One of the risk factors behind the development of OA is gut dysbiosis(De Sire et al., 2020).Studies predict that the life expectancy of a large number of people has increased in the last few decades the increases in life expectancy are related to increases in the trend of PA. People around the globe who indulge in PA-related programs are more mentally and physically active and have better health as compared to physically inactive people(Dominguez, Di Bella, Veronese, & Barbagallo, 2021).a scholar suggests that a decrease in a person's ability to perform different tasks with full strength is because of the ageing process.

The process of ageing determines the health of different parts of the body.to delay the ageing process and to make older people fit, they are provided with PA-based programs. The main aim of providing PA programs to elder people in America is to make them physically active and mentally strong(Eckstrom, Neukam, Kalin, & Wright, 2020).studies highlight that the special population facing chronic health diseases in American states is dealt with using clinical exercise pathology the clinical exercises are provided to people facing chronic diseases to improve their medical health (Ehrman, Gordon, Visich, & Keteyian, 2022).Studies suggest that predictive models are used in research-based studies to explain the cognitive functioning of older people. This model reveals athlete the participation of elderly people in intellectual as well as school activities improves their cognitive health(Fernández, García-Mollá, Oliver, Sansó, & Tomás, 2023).Scholars reveal that the health of people with chronic diseases is improved when they are provided with intervention through wearable trackers. The trackers are specially designed to provide information about chronic patients' health when they undergo physical activity. Physical activity improves the health of patients with chronic health problems and improves their health condition(Franssen, Franssen, Spaas, Solmi, & Eijnde, 2020).studies elaborate that the process of healthy aging in elderly people of American countries is dependent on physical functioning.PA acts as a therapeutic strategy that improves the physical functioning of people, making them immune to various deadly infectious diseases. In hospitals the, elderly people having any disease condition are provided with supervised PA-based therapies(Izquierdo, Duque, & Morley, 2021).furthermore, ageing is an inevitable process. In the ageing process, a person changes behavioural activities.to make the change in behavioral activities positive in elderly people, they are provided with PA-based training programs. these programs make the ageing process healthier and improve the cardiovascular health of elderly people(Izquierdo, Merchant, et al., 2021).studies explain that to predict the prevalence rate of diabetes 2 disease in school adolescents in America various censuses are made by the American school of medicine. These censuses reveal that physical activity improves the health of diabetes 2 students to some extent (Omar & Ehrin, 2018).

Also, the PA-related guidelines made by the American School of Medicine are provided to the individual facing type 2 diabetes problem(Kanaley et al., 2022).studies suggest that lower back pain is very common in elderly people.in some cases, if proper care is not taken, the LBP changes into chronic pain and badly influences the health of elderly people.to treat the LBP in elderly people, they are provided with rehabilitation-based treatment. physical activity-based therapies are provided in the rehabilitation treatment of the elderly pollution of America(Pergolizzi Jr & LeQuang, 2020) studies show that adults with bad behavioral activities develop serious health problems. the bad behavior in most people is induced by a lack of physical exercise-related activities in their lives. also during the covid 19 lockdown period a reduction in PA was observed in people

having negative behavioral activities(Rogers et al., 2020).

Studies suggest that dysregulated metabolism is the cause of the onset of complicated health problems. developing precision medicine using an AI-based system is efficient in treating these metabolism-related disorders(Subramanian et al., 2020).studies explain that a lack of PA develops obesity and other chronic disorders in the elderly population. indulging in high-intensity PA reduces the chances of obesity and improves the life quality of people(Suryadinata, Wirjatmadi, Adriani, & Lorensia, 2020).furthermore, one of the major risk factors behind NCDs is air pollution as well as lack of PA(Tainio et al., 2021). Also, the technological revolution in the world has made people physically inactive and has resulted in the development of various health-related issues. furthermore, physically inactive people are more problem to develop sedentary behavior and chronic health problems(Woessner et al., 2021).

3.1 Common Chronic Diseases

The appearance of chronic diseases among the elderly in South America is a growing anxiety. According to a study major chronic disease that trouble the aging population in high-income countries include hypertension, high cholesterol, heart disease, stroke, and chronic obstructive pulmonary disease were the leading causes of early passing in Central and South America. Other frequent chronic diseases in South America include diabetes and depression. The impact of these conditions on the overall health and well-being of seniors can be significant.

Chronic diseases can lead to functional limitation disabilities and reduced quality of life. Arthritis is a disease that can cause pain, stiffness, and swelling in the joints, making it difficult for seniors to perform daily activities. Osteoporosis is also a disease that can lead to fracture, which can result in chronic pain, disability, and loss of Independence. Diabetes can cause a range of complications, including nerve damage, kidney diseases, and vision loss. Depression can lead to social isolation, a decrease in physical activities, and poor self-care chronic.

Chronic diseases are recognized in South America, and they can significantly impact their overall health and well-being. The leading chronic diseases in the region include hypertension, high cholesterol, heart disease, stroke, chronic obstructive pulmonary disease, diabetes, and arthritis. Effective management of these conditions is important to improving the quality of life of seniors in the region.

3.2 Importance of Physical Activity

Regular physical activity offers countless benefits for seniors, supporting and helping manage chronic diseases and boosting overall well-being. Many

studies have shown that maintaining regular physical activity can help stop common diseases such as heart disease, diabetes, and certain types of cancer. Exercise has been linked to improved mental health, stress reduction, and better sleep, which is especially important for older adults who may experience insomnia and disturbed sleep. Exercise improves strength, flexibility, balance, and coordination. Decrease the risk of falling which can be particularly harmful in maintaining independence in older adults. Physical activity also helps in improving heart health reducing the risk of high blood pressure and better blood circulation, all of these are vital for seniors. Participating in muscle-strengthening activities helps reduce the risk of falling and improves the ability to perform routine tasks. Providing supporting Independence and quality of life. Physical activity plays a crucial role in weight management which is remarkable for preventing and managing various chronic conditions including diabetes, and heart disease.

There is much evidence that suggests that regular physical activity can support mental activities and reduce mental decline in older adults. Regular physical activity acts as a strong foundation of healthy aging, providing a range of benefits to the elderly population, including disease prevention, improved mental health, reduced risk of falling, better strength of muscles, flexibility weight management, and support for cognitive function. These benefits underscore the importance of promoting and supporting physical activity among the elderly to help manage chronic diseases and enhance overall health.

3.3 Benefits of Physical Activity

Doing physical activity regularly is important for seniors or adults to maintain their health, stay Independent, and for overall healthy life. However, it is important to perform the exercise properly and change it according to individual needs and abilities. It would be beneficial if the elderly population of South America tried working with healthcare expert to develop a personalized exercise plan that considers their current fitness level, health condition, and interests. The elderly people can begin exercises with low-intensity activities and gradually increase the duration and intensity as their fitness improves. Select activities that you find enjoyable, like walking, dancing, and gardening.

Also, do strength training exercises to build muscle mass and improve balance. It is important to keep track of your progress, including the type of activity, duration, and intensity. Share the information with the healthcare provider during regular checkups. Even a small amount of regular physical activity can make a significant difference in a senior's health and improve their quality of life. Incorporating physical activity into daily routine is essential for seniors to manage chronic diseases and promote overall well-being. Healthcare professionals, caregivers, and seniors themselves can take practical steps to ensure that physical activity is safe and effective.

3.4 Correlations

Table 1

		PHYSICAL ACTIVITY 1	PHYSICAL ACTIVITY 2	PHYSICAL ACTIVITY 3	MANAGING CHRONIC DISEASES 1	MANAGING CHRONIC DISEASES 2	MANAGING CHRONIC DISEASES 3
PHYSICAL ACTIVITY 1	Pearson correlation	1	.359*	-.422**	-.025	.127	-.398**
	Sig. (2-tailed)		.010	.002	.865	.379	.004
	N	50	50	50	50	50	50
PHYSICAL ACTIVITY 2	Pearson correlation	.359*	1	-.407**	.014	.266	-.257
	Sig. (2-tailed)	.010		.003	.925	.061	.071
	N	50	50	50	50	50	50
PHYSICAL ACTIVITY 3	Pearson correlation	-.422**	-.407**	1	.156	-.342*	.478**
	Sig. (2-tailed)	.002	.003		.279	.015	.000
	N	50	50	50	50	50	50
MANAGING CHRONIC DISEASES 1	Pearson correlation	-.025	.014	.156	1	-.316*	.425**
	Sig. (2-tailed)	.865	.925	.279		.025	.002
	N	50	50	50	50	50	50
MANAGING CHRONIC DISEASES 2	Pearson correlation	.127	.266	-.342*	-.316*	1	-.186
	Sig. (2-tailed)	.379	.061	.015	.025		.196
	N	50	50	50	50	50	50
MANAGING CHRONIC DISEASES 3	Pearson correlation	-.398**	-.257	.478**	.425**	-.186	1
	Sig. (2-tailed)	.004	.071	.000	.002	.196	
	N	50	50	50	50	50	50

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

The above result describes that correlation coefficient analysis result represent that Pearson correlation, significant rate and number of observations of each variable included dependent and independent. The managing chronic diseases 1 is main dependent variable according to the result its correlation values are -0.025, 0.014, 0.156, -0.316 shows that positive and negative correlation between them. the significant values are 37%, 15%, 25%, significantly level between them. the physical activity shows that significant link between them. Physical activity plays an important role in managing chronic diseases, especially among the growing elderly population in South America. The studies tell us that deficient physical activity was associated with a higher occurrence of chronic diseases and multi-morbidity (other chronic diseases) among older adults. Highlighting the significance of promoting physical activity as a preventive measure for chronic diseases and multimorbidity in older adults. Physical activity plays an important role in managing chronic diseases among the growing elderly population in South America. Regular physical activity has been linked to improved physical and mental function, prevention and reduction of the advancement of non-contiguous chronic diseases, increased years of life, and better quality of life. As the elderly population continues to grow effective management of chronic conditions through physical activity becomes more and more important for promoting healthy aging and reducing the load of chronic diseases.

3.5 One-way ANOVA Test

Table 2

ANOVA						
		SUM OF SQUARES	**DF**	**MEAN SQUARE**	**F**	**SIG.**
PHYSICAL ACTIVITY 1	**BETWEEN GROUPS**	2.655	2	1.328	4.514	.016
	WITHIN GROUPS	13.825	47	.294		
	TOTAL	16.480	49			
PHYSICAL ACTIVITY 2	**BETWEEN GROUPS**	.895	2	.448	1.667	.200
	WITHIN GROUPS	12.625	47	.269		
	TOTAL	13.520	49			
PHYSICAL ACTIVITY 3	**BETWEEN GROUPS**	2.869	2	1.435	7.059	.002
	WITHIN GROUPS	9.551	47	.203		
	TOTAL	12.420	49			

The above result represent that ANOVA test analysis result describe sum of square values, mean square values, the F statistic, also that significant values of each independent variables. the physical activity 1 shows that sum of square values is 2.655, 13.825 and total value is 16.480 respectively. The mean square value of physical activity shows 1.328 and 0.294 the F statistic represent

that 4.514 positive rate its significant value is 0.016 shows that 16% significantly level between them. similarly, the physical activity 2, and 3 these are all consider as sum of square values are 0.895, 12.625, 13.520 respectively. The mean square values are 44%, 26%, and 20% of each indicator. The F statistic rate is 1.667 and 7.059 its significant value is 2% and 20% significantly level between them.

3.6 Role of physical Activity

Regular physical activity has many advantages beyond improving general health and wellbeing; these advantages are especially important for managing chronic conditions that are frequently linked to ageing. The following are some salient features of how physical activity helps South American senior populations manage chronic diseases:

3.7 Heart and Vascular Health

By boosting heart function, lowering blood pressure, and enhancing blood circulation, physical activity helps to improve cardiovascular health. Cardiovascular diseases, which are common in the elderly, such as heart attacks and strokes, can be prevented with regular exercise.

4. Diabetes Management

By enhancing insulin sensitivity and glucose metabolism, physical activity is essential for both managing and preventing diabetes. The prevalence of diabetes has increased in South America, and an all-encompassing diabetes management plan should include exercise as a key component.

4.1 Musculoskeletal Health

Regular exercise lowers the risk of falls and fractures, which are common concerns for the elderly. It also helps maintain bone density, joint flexibility, and muscle strength. With the right exercise regimen, conditions like osteoporosis and osteoarthritis can be better managed.

4.2 Mental Health

Engaging in physical activity improves mental health by lowering the likelihood of anxiety and depression, which are frequently linked to chronic disease. The social components of group activities can help elderly people in South America feel supported and part of a community.

4.3 Obesity Prevention

Exercise plays a critical role in managing weight and preventing obesity, which is associated with a number of chronic diseases, including diabetes and heart disease. Promoting active lifestyles can help older people maintain a

healthy body weight.

4.4 Respiratory Health

Exercise on a regular basis improves breathing and is helpful in the treatment of long-term respiratory diseases like chronic obstructive pulmonary disease (COPD).

4.5 Cognitive Function

Research has shown a connection between exercise and a lower risk of neurodegenerative infections like Alzheimer's. The cognitive advantages of physical activity can help older people preserve their independence and quality of life.

4.6 Healthcare Cost Reduction

As active people may need fewer medical interventions, encouraging physical activity in older populations may help save healthcare expenditures related to the management of chronic conditions.

4.7 Model Summary

Table 3

MODEL	R	R SQUARE	ADJUSTED R SQUARE	STD. ERROR OF THE ESTIMATE
1	.180[a]	.032	-.031	.58018

a. Predictors: (Constant), Physical Activity 3, Physical Activity 2, Physical Activity 1

The above result describes that model summary analysis its present R value is 0.180 the R square value is 0.032. according to the result its adjusted R square value is -0.031 the standard error of the estimated value is 58% estimated rates of each model.

4.8 Regression analysis

Table 4

COEFFICIENTS						
MODEL		UNSTANDARDIZED COEFFICIENTS		STANDARDIZED COEFFICIENTS	T	SIG.
		B	STD. ERROR	BETA		
1	(Constant)	1.091	.507		2.150	.037
	Physical Activity 1	.030	.162	.031	.187	.853
	Physical Activity 2	.093	.177	.086	.525	.602
	Physical Activity 3	.231	.191	.204	1.215	.231

a. Dependent Variable: Managing Chronic Diseases 1

The result describes that regression analysis result describe beta values, standard error, also that describe t statistic values, and significant values. The physical activity 1 is main independent variable its beta value is 0.030 the t statistic rate is 0.187 shows that positive t statistic rates and its significant value is 85% significantly. The physical activity 2,3, represent that beta values are 0.093, 0.231 the t values are 0.525 and 1.215 the significant value is 60% and 23% significantly levels between them. overall result shows positive and significant relation between them.

4.9 Test Statistics

Table 4

	PHYSICAL ACTIVITY 1	PHYSICAL ACTIVITY 2	PHYSICAL ACTIVITY 3	MANAGING CHRONIC DISEASES 1	MANAGING CHRONIC DISEASES 2	MANAGING CHRONIC DISEASES 3
CHI-SQUARE	21.280[a]	30.760[a]	.320[b]	19.840[a]	23.560[a]	25.720[a]
DF	2	2	1	2	2	2
ASYMP. SIG.	.000	.000	.572	.000	.000	.000
a. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 16.7.						
b. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 25.0.						

The above result represents that test statistical analysis result describe that chi square values of each variable included independent and dependent the physical activity 1,2, 3 shows that chi square values are 21.280, 30.760, 0.320 positive chi square values. The physical activity presents 0.320 shows 32% positive chi square according to the result its managing chronic diseases shows that 19.840, 23.560 and 25.720 respectively.

4.10 Total Variance Explained

Table 5

COMPONENT	INITIAL EIGENVALUES			EXTRACTION SUMS OF SQUARED LOADINGS		
	TOTAL	% OF VARIANCE	CUMULATIVE %	TOTAL	% OF VARIANCE	CUMULATIVE %
1	2.441	40.682	40.682	2.441	40.682	40.682
2	1.199	19.987	60.668	1.199	19.987	60.668
3	.899	14.983	75.651			
4	.570	9.497	85.148			
5	.530	8.836	93.985			
6	.361	6.015	100.000			
Extraction Method: Principal Component Analysis.						

The above result describes variance analysis of each indicator included independent and dependent the result describes that total value, % of variance also % of cumulative of each variance included initial eigenvalues and extraction sums of squared of component. The total values are 2.441, 1.199, 0.899, 0.570 0.530 and 0.361 all of them are shows positive variance rates. The cumulative values are 40.682, 19.987 respectively.

5. Conclusion

The search results provide further evidence of the significance of physical activity in managing chronic diseases among the elderly population in South America. A study conducted in Southern Brazil found that older adults with chronic diseases and other chronic problems were more likely to have insufficient physical activity levels. Physical activity is crucial in managing chronic diseases among the elderly population in South America. Regular physical activity can help stop and manage chronic diseases such as heart disease, diabetes, and arthritis. It is vital to highlight that healthcare providers should personalise exercise regimens to individual demands and health problems. Encouraging a combination of aerobic, strength, flexibility, and balance activities can give overall health advantages for the aged population in South America and across the world. Additionally, community-based initiatives and public health campaigns can play a key role in encouraging active lifestyles among the elderly. In conclusion, the significance of physical exercise in controlling chronic infections among South American senior populations is crucial to supporting overall health and well-being. Recognizing the numerous and expanding healthcare difficulties encountered by aging adults in the region, promoting and supporting regular exercise can greatly contribute to infection prevention, management, and better quality of life.

The numerous advantages of physical activity span from cardiovascular health and diabetes control to musculoskeletal well-being and mental health. By addressing these characteristics, regular exercise not only decreases the risk of chronic infections but also promotes the capacity of older adults to preserve independence and actively interact in their communities. Tailoring exercise routines to individual requirements and health situations is vital, stressing a holistic approach that incorporates aerobic, strength, flexibility, and balance activities. The overall research concluded that direct and significant link between them. Moreover, community-based initiatives, healthcare professionals, and public health campaigns play crucial roles in establishing a culture of active aging. These efforts can help not only to the health of elderly folks but also to the possible reduction of healthcare expenses connected with chronic infection management. As South American nations continue to face demographic transitions and an ageing population, focusing and investing in projects that encourage physical activity among the elderly is crucial. By doing so, societies may strive towards developing healthier, more active, and resilient ageing communities, thereby improving the overall health outcomes for the aged in the region. It can also improve mental health, emotional, psychological,

and social well-being as well as mental functions. Regardless of these health benefits, physical activity levels among older adults remain below the recommended 150 minutes per week. Inactivity and aging increase the risk of chronic diseases, and older people often have multiple chronic conditions therefore people in South America need to engage in regular physical activity to manage and prevent chronic diseases.

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