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Mini Review

Physical Activity Strategies for Health Promotion and Fall Reduction in Elderly People in a Public Program

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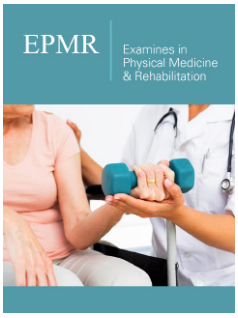

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Introduction

The National Elderly Policy, established in 1994, aims to promote the rights of older adults through government measures focused on health promotion, such as encouraging physical activity among this population. In this context, it is essential to adopt approaches that involve not only the healthcare system but also society as a whole to promote active aging, preserving the integrity and autonomy of older adults and consequently reducing the risk of falls [1-3]. In addition to physical consequences, falls significantly affect the psychological and social aspects of the elderly, fostering feelings of isolation and even depression. The persistent fear of new falls often limits mobility and independence, resulting in diminished quality of life for this population [4-6]. To address this challenge, it is crucial to consider the multiple factors that increase the vulnerability of older adults to these incidents, such as cognitive decline, loss of strength, and impaired balance. In this sense, promoting physical exercises emerges as an effective initiative to mitigate the impacts of falls, as these activities strengthen muscles and improve balance, constituting an efficient strategy for fall prevention [7-9]. The objective of this case study is to evaluate the strategies of physical activities aimed at promoting health and reducing the incidence of falls among older adults in a municipal public program.

Methodology

The methodology adopted included a literature review on physical activity programs for older adults and the presentation of a case study of a municipal intervention conducted in partnership with a university in the city of Niterói. CAAE: 67496423.6.0000.8044. Public programs promoting physical activities for older adults are widely recognized as effective interventions for preventing falls and improving quality of life. When incorporated into their daily routine, physical activity tends to enhance the elderly's awareness of their overall well-being, encouraging healthy eating choices, maintaining adequate sleep, and reducing harmful habits [10-12].

A study conducted by Ferreira et al. (2017) assessed a government-offered physical activity program for older adults in a city in São Paulo's interior and reported a significant reduction in the incidence of falls among participants [10]. Similarly, a study in Mexico by Mendoza-

Ruvalcaba and Arias-Merino (2015) compared the effectiveness of two fall prevention programs: one that combined physical exercises with lectures and a manual delivery and another consisting only of lectures and manual distribution, without physical exercises. The findings demonstrated greater adherence and effectiveness in reducing falls among participants engaged in physical exercises [11]. In recent years, various public health promotion programs have been implemented with the goal of increasing physical activity levels in this population. These programs are not only widely accessible but also considered economical, given that implementation costs are lower compared to treatment expenses for fall-related injuries [2,8,10-13].

Additionally, many state and municipal governments have developed their own initiatives for older adults. For example, the city of São Paulo offers the „Viver Mais" program, which includes activities such as yoga, tai chi, and hydrotherapy. Similarly, Rio de Janeiro provides the „Vida Ativa" program, which serves approximately 40,000 individuals aged 40 and over, offering free gymnastics, dance, and recreational activities [2,8]. The municipality of Niterói, through the Municipal Elderly Secretariat, developed the „60 Up" project, which currently operates in 25 centers spread across various neighborhoods, serving about 4,000 older adults. This project offers a wide range of activities, including gymnastics, ballroom dancing, conversation circles, and the „Grandparents Singing" choir, held in different parts of the city [11-13].

This multidimensional approach, combined with the continuous development of studies and programs tailored to this population, in partnership with the Graduate Program in Physical Activity Sciences at Salgado de Oliveira University, is essential to improve the quality of life for older adults in the municipality. Such initiatives create a safer and healthier environment, reducing risks associated with aging and, above all, preventing falls [12-14]. On March 12, 2024, the „Longevity UP" Symposium was held in the Nelson Pereira dos Santos room, in Niterói, Rio de Janeiro, with approximately 300 older adults attending. The event, organized in collaboration with Dr. Adalgiza Mafra Moreno and Dr. Sara Menezes, professors of the university's Graduate Program, aimed to present the research results conducted by the master's team at Salgado de Oliveira University and to promote a space for dialogue and learning on issues related to healthy aging [12,13].

During the Symposium, topics related to longevity and its impact on contemporary society were addressed, with the participation of Niterói's Municipal Elderly Secretary, José Antônio Fernandez. Additionally, a clinical nutritionist conducted a debate on healthy eating, discussing the importance of nutritional interventions. Studies suggest that these interventions, combined with physical exercises, play a crucial role in promoting quality of life for older adults. Recent research highlights that adopting an anti-aging diet can reverse the aging process, improve muscle strength, and enhance overall well-being while regulating appetite and inhibiting cellular senescence and apoptosis. These findings underscore the significance of integrated strategies that combine nutrition and physical activity for healthy aging [15-16].

Also, during the Symposium, Dr. Adalgiza Mafra Moreno, a researcher in Physical Activity and Aging Sciences, delivered a lecture detailing the results of the studies conducted and discussing the ethical and practical challenges faced in implementing physical activity programs. According to the data analyzed and presented, sedentary older adults exhibited a higher number of falls, impaired balance and gait, reduced quality of life and sleep, and increased medication use compared to participants in the „60 Up" project [11-13]. These results further emphasize the role of physical exercise as a preventive strategy in promoting health and reducing risk factors associated with falls in the elderly population.

Conclusion

The promotion of physical activities for older adults through municipal public programs has proven to be an effective strategy for reducing falls and improving quality of life. The studies and programs analyzed highlighted that regular physical exercise significantly contributes to muscle strengthening, improved balance, and greater autonomy for older adults. In addition to physical benefits, these activities positively impact psychological and social aspects, promoting integration and overall well-being among participants. Therefore, it is recommended to continue and expand these initiatives through partnerships among governments, universities, and communities, aiming to promote healthy aging and prevent falls among older adults.

References

1. (1994) Provides for the national policy for the elderly and creates the National Council for the Elderly. Brasília.
2. Janeiro R (2023) City hall launches the active life project for people aged 40 and over. City Hall of Rio de Janeiro.
3. Débora R, Dalia C (2020) Good practices in the management of elderly health. Public policies and health promotion in the practice of the SUS. Editora ICITC-Fiocruz, Rio de Janeiro. World Health Organization. Falls: Prevention in older age. WHO, Geneva, Switzerland.
4. Tavares MS (2024) A deep look at a silent reality: Falls among the elderly. Cajuína Notebooks, 9(3): e249323-e249323.
5. Paiva MM, Lima MG, Barros MBA (2020) Social inequalities in the impact of falls among elderly people on health-related quality of life. Science & Public Health 25(5): 1887-1896.
6. Silva AM, Borges RM (2017) Trajectories of social participation in old age: A systematic literature review. Revista Brasileira de Geriatria E Gerontologia 20(2): 91-99.
7. Martinez LCF, Colino CM, Pedroso JS (2024) Healthy aging and self-efficacy of the elderly: A systematic review. Revista de Psicologia da IMED 10(2): 103-118.
8. (2024) São Paulo, SEME launches Viver Mais Program, Municipal Department of Sports and Leisure, City Hall of São Paulo.
9. Ferreira MCG, Tura LFR, Silva RC, Ferreira MA (2017) Social representations of older adults regarding quality of life. Rev Bras Enferm 70(4): 806-813.
10. Mendoza-Ruvalcaba N, Arias-Merino E (2015) "I am active": Effects of a program to promote active aging. Clinical Interventions in Aging 10: 829-837.
11. Niterói (2020) Niterói remains in first place in quality of life for the elderly in the State. Niterói City Hall.

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12. Niteroi (2024) Prefecture of Niterói. Prefeitura de Niterói chega a 25 núcleos do 60UP. Disponível.

13. Tavares MS, Menezes SLS, Ribeiro EDF, Orsini M, Tuza FAD, et al. (2024b) Associations between cardiovascular risk factors and timed up and go test for elderly participants in public physical activity programs. Int J Environ Res Public Health 21(8): 993.

14. Martins IJ (2018) Anti-aging genes improve appetite regulation and reverse cell senescence and apoptosis in global populations. Advances in Aging and Health Research 5(1):

15. Martins IJ (2017) Single gene inactivation with implications to diabetes and multiple organ dysfunction syndrome. Journal of Clinical Epigenetics 3(3): 1-8.

16. Martins IJ (2017) Nutrition therapy regulates caffeine metabolism with relevance to NAFLD and induction of type 3 diabetes. J Diabetes Metab Disord 4: 19.

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