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EDITORIAL

SPECIAL CALL - New Exercise Programs for Older Adults in the Community: Evidence and Applicability in the Latin American Context

Geriatrics, Gerontology and Aging

New exercise programs for older adults in the community: evidence and applicability in the Latin American context

Novos programas de exercícios para idosos na comunidade: evidências e aplicabilidade no contexto latino-americano

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Latin America is experiencing one of the fastest aging demographics globally. Projections indicate that more than 15% of its population will be over 60 years by 2030, and this figure will surpass 30% by 2060.[1] This demographic transition is accompanied by a significant rise in non-communicable diseases, such as diabetes, hypertension, and cardiovascular diseases.[2] These diseases have shown an exponential increase worldwide, particularly in Latin America. For example, the prevalence of diabetes in the region is expected to exceed 10% by 2050.[2]

As a consequence of these chronic conditions, sarcopenia and frailty have emerged as major health concerns among older adults, leading to functional decline and higher health care costs.[3,4] Additionally, sedentary behavior, poor dietary habits, and the lack of structured physical activity programs have significantly contributed to the rising prevalence of comorbidities in older adults in Latin America.[5] Given this rapid increase, it is imperative to develop and implement comprehensive strategies focused on preventive and therapeutic interventions to promote healthy aging in this region.

Promoting structured exercise programs tailored to the needs of older adults is one of the most effective strategies for mitigating the impact of chronic diseases and associated geriatric syndromes. Exercise is widely recognized for its role in improving cardiovascular health, glycemic control, muscle mass and function, functional independence, and overall quality of life.[6] Exercise interventions for older populations encompass a wide range of modalities, including aerobic, resistance, coordination, balance, and flexibility exercises. Expert consensus guidelines recommend that these modalities be prescribed at varying intensities, adjusting for specific therapeutic objectives.[6]

For example, for individuals with reduced aerobic capacity and muscle strength, such as older adults living with cardiovascular or pulmonary diseases, aerobic and resistance training are the most commonly used exercise modalities.[7] In contrast, resistance, balance, and gait exercises are prioritized for those at risk of falls or frailty.[6] Therefore, the selection of exercise modalities and intensity should align with the therapeutic objective, considering the individual's functional status and existing comorbidities. Another critical consideration is the monitoring process during exercise sessions. While some older adults may require individualized supervision and tailored exercise programs, others may benefit from community-based exercise programs. Although group sessions provide less individualized attention and pose challenges in monitoring each participant, they offer significant

advantages, including fostering social connections, enhancing social interaction and engagement, and allowing for the inclusion of more participants per session.[8]

Cognitive function is also an essential factor to consider, since cognitive impairment may hinder the proper understanding or performance of tasks. Moreover, the ability to perform motor and cognitive tasks simultaneously declines with aging and is further impaired by certain comorbidities.[9] Consequently, new exercise programs incorporating dual-task activities have been developed, including functional exercises designed to maintain both physical and cognitive health.[10]

Community-based exercise interventions offer a cost-effective solution for promoting physical activity among older adults, particularly in low-resource settings.[11] In Latin America, 89% of the community-based exercise programs feature traditional physical exercises, while 11% incorporate alternative programs such as Tai Chi and Pilates.[12] Several of these exercise programs are developed locally,[8,12,13] while others are adapted from international models.[14,15] One example is the VIVIFRAIL program,[13] a multicomponent physical exercise initiative designed to prevent frailty and falls. It uses functional capacity assessments, such as the Short Physical Performance Battery (SPPB), to tailor exercise prescriptions for unsupervised sessions. In addition, a standardized functional exercise circuit (FEC) method has been successfully implemented in countries such as Chile and Brazil.[8,12,13] These programs use structured multicomponent exercises, including aerobic capacity, strength, resistance, flexibility, coordination, and balance, designed for public spaces, parks, and community centers. Beyond structured exercise programs, lifestyle modifications play a crucial role in healthy aging. Encouraging daily movement, reducing sedentary time, and promoting social activities that incorporate physical exertion can contribute to long-term well-being. In this regard, the VAMOS program (*Vida Ativa Melhorando a Saúde*) has yielded positive results in Brazil, demonstrating its effectiveness in community-based interventions for both middle-aged and older adults.[14,15]

Despite the evidence published in this field, significant challenges remain unresolved. A recent systematic review found that most evidence on exercise programs in Latin America originates from only a few countries — primarily Brazil, Chile, Mexico, and Ecuador —, with most of them being implemented in Brazil.[12] In addition, exercise programs must be adaptable to different settings and individual conditions. Programs must be designed to be feasible, scalable, and accessible to ensure their effectiveness in diverse socioeconomic and geographic contexts, considering the peculiarities of rural communities or low-resource settings across Latin America.[11] For this reason, in this Special Issue, we invite researchers and clinicians from across Latin America to share their experiences with innovative exercise interventions aimed at promoting healthy aging and preventing comorbidities, geriatric syndromes, and their consequences. We encourage submissions that explore evidence-based strategies, including exercise programs in different settings (community-based, nursing homes, inpatient care, etc.), digital health innovations, exercise prescription and customization, and barriers and facilitators of exercise participation among older adults in Latin America. Through collaboration and knowledge exchange, we aim to advance scalable and sustainable interventions that promote active aging and enhance older adults' quality of life across this region.

DECLARATIONS

Authors' contribution

Walter Sepúlveda-Loyola: conceptualization, writing — original draft, writing — review & editing. Yshoner Antonio Silva-Diaz: writing — original draft, writing — review & editing. Denilson de Castro Teixeira: writing — review & editing. Carol Saldías Solis: conceptualization, writing — review & editing. Danúbia da Cunha de Sá Caputo: project administration, writing — review & editing. Osvaldo Enrique Artaza Barrios: conceptualization, writing — original draft. Alejandro Álvarez-Bustos: visualization, writing — review & editing

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