



Physical Activity and Musculoskeletal Disorders among Iranian Older Adults

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The aging of the world's population represents one of the key challenges over the next decades. Both life expectancy and the proportion of older adults are increasing; therefore, promoting and maintaining the quality of life at an older age is essential, especially in developing countries. It is estimated that one in five of the elderly population will be more than 80 years old in 2050 (1). In Iran, according to the medium-fertility variant in more recent analyses, the rate of people with the age over 60 and 65 is represented to be around 31% and 22%, respectively, in 2050 (2).

In recent years, there has been an increasing effort to investigate the causes of Musculoskeletal Disorders (MSDs) and to take action to prevent them. It should also be noted that the prevalence of MSDs (including the joints, muscles, ligaments, nerves, tendons, and structures that support limbs, neck, and back) increases with age (3). Musculoskeletal conditions are typically characterized by pain (often persistent) and limitations in mobility, dexterity, and functional ability, reducing people's ability to work and participate in social roles with associated impacts on mental well-being, and at a broader level, impacts on the prosperity of communities (4). Recent evidence suggests that the prevalence of MSDs for older people in care homes was 30.2% (n=105,463) (5). MSD in the older population is a major cause of disability and loss of independence, and osteoarthritis is the most commonly seen MSD in older people. An estimated 70% of all people over 65 are affected by osteoarthritis (6).

Inactivity and aging increase the risk of chronic diseases, and older people often have multiple chronic conditions. Physical activity is a major contributor to "healthy aging" and can prevent and reduce the occurrence of MSDs in populations of all ages (7). The World Health Organization (WHO) defines healthy aging as the process of developing and maintaining the functional ability that enables well-being at older age. Still, in developing countries, like Iran, most of the predisposing factors for MSDs exist, namely, increasing obesity and insufficient physical activity (8). Although there is clear evidence that physical activity is important for older adults, for many of them, their physical activity levels are below the recommendations, indicating that they do not engage in sufficient physical activity, particularly in

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low-income countries such as Iran (9). Despite the increase in MSDs as an important cause of disability in Iran, these conditions are not sufficiently addressed in health policies (10). Increasing physical activity and reducing time spent in sedentary behavior have been suggested to be a key strategy to attenuate the declines in muscle mass and physical function associated with aging and may also delay the clinical symptoms of frailty in older adults. Furthermore, mental health improvements,

emotional, psychological, social well-being, and cognitive function are also associated with regular physical activity. Therefore, physical activity should be promoted as part of a healthy lifestyle essential to prevent MSDs during aging.

Considering the contribution of MSDs in multimorbidity, there should be integration across social care and health care systems as a proven, cost-effective approach. A core issue is how to encourage older people with comorbidities to exercise.

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