



Beyond Exercise: Benefits of Aquatherapy in Ageing

Bariş Gürpınar 

Department of Physiotherapy and Rehabilitation, Faculty of Health Sciences, İzmir University of Economics, İzmir, Turkey

Population ageing is associated with a progressive decline in physical capacity, including reductions in balance, muscle strength, flexibility, and mobility, which may lead to decreased independence and quality of life. Exercise interventions are widely recommended to counteract these changes, and aquatic therapy has emerged as a promising modality for older adults due to the unique physical properties of water, such as buoyancy, hydrostatic pressure, and resistance.

Although the therapeutic use of water dates back to ancient civilisations, the integration of aquatic exercise into evidence-based rehabilitation practice is relatively recent. Over the past decades, an increasing number of randomised controlled trials, systematic reviews, and meta-analyses have investigated the effects of aquatic therapy on ageing populations.

Current evidence indicates that aquatic exercise can produce meaningful improvements in several domains of health and function. Meta-analytic findings demonstrate significant improvements in dynamic balance among older adults (standardised mean difference: -1.13). Additional systematic reviews and randomised controlled trials have reported improvements in muscle strength, flexibility, and functional mobility, as well as reductions in body fat percentage and total cholesterol levels. In older adults with musculoskeletal conditions such as osteoarthritis and rheumatoid arthritis, aquatic exercise has been shown to reduce pain and stiffness while improving walking ability and functional performance.

Beyond physical outcomes, emerging evidence also suggests beneficial effects on cognitive and psychological domains. Studies have reported improvements in cognitive functions, including executive function and reasoning tests, as well as positive effects on quality of life, mood, anxiety levels, and fear of falling. These findings highlight the potential of aquatic therapy as a multidimensional intervention addressing both physical and psychosocial aspects of healthy ageing.

Keywords: Aged; hydrotherapy; exercise therapy; physical function; cognition



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