**Abstract example**

CAN AQUATIC EXERCISE IMPROVE FUNCTION IN ELDERLY PERSONS WITH AND WITHOUT CHRONIC DISABILITY? A SYSTEMATIC REVIEW

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INTRODUCTION: Exercise has proven to be beneficial for elderly and water seems to be an appropriate environment for these persons to exercise, nevertheless no recent review has concentrated on this population and the evidence remains unclear. The purpose was therefore to evaluate the effect of aquatic exercise on function in elderly with and without chronic diseases.

METHODS: PUBMED, PEDRO, CINAHL, Sports Discus and the Cochrane controlled trials register were searched for relevant trials from 1980 to 2007. Studies: randomised controlled trials. Population: mean age 55 yrs or older, independent in ADL- and with or without chronic disability. Interventions: active aquatic therapy (exercise). Outcomes: Cardiovascular fitness, flexibility, balance, strength, and body composition. Methodological quality was assessed with the Delphi List.

RESULTS: After initial search and title check,114 articles were deemed potentially relevant. Abstracts were reviewed and 84 articles were excluded as not being RCTs, intervention not active, mean age lower than 55 yrs. or including persons younger than 40 yrs. After reading the full text 12 more articles were excluded for other reasons. TheDelphi Scores ranged from 3 to 7 and was considered medium for 6 studies (score 5 and 6) and high for 2 studies (score 7). In all studies, participants were randomly allocated and similar at baseline for demographic characteristics. Eligibility criteria were always specified, and point estimates and measures of variability were presented as *M* and SE, or *M* and SD. Care provider was never blinded, and patient blinding occurred in 2 trials.

The samples used ranged from 12 to 139 persons (*M* = 106.5) and mean age ranged from 58 to 78 years. The intervention period ranged from 4 to 24 weeks with 1 to 3 sessions a week (total minutes of treatment 240 min to 4320 min, Mean = 1460 min). Water level ranged from waist to chest level (axillary region). Water temperature was between 26° and 30° C.

DISCUSSION: The evidence indicated beneficial effects of aquatic exercise on function in elderly. Consistently significant evidence was found for improvement in cardiovascular fitness (12% - 22%) and significant but less consistent evidence was found for improvements in flexibility (+11%), balance, strength (5% to 30%) and body composition (3.4% increase in lean body mass and 8% decrease in skin-fold thickness). Only 1 study reported an adverse effect of aquatic therapy.

CONCLUSION: For more details, please visit the Conference web site.

REFERENCES: Please try to minimise the amount of references. Quote only those having a major impact on the matter in question.

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