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Exercise for reducing fear of falling in older people living in the community

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Objective: To determine the effect of exercise interventions on fear of falling in community-living people aged ≥65 years.

Methodology & Design: Systematic review and meta-analysis. Bibliographic databases, trial registers and other sources were searched for randomized or quasi-randomized trials. Data were independently extracted by pairs of reviewers using a standard form.

Results: Thirty trials (2878 participants) reported 36 interventions (Tai Chi and yoga (n=9), balance training (n=19), strength and resistance training (n=8)). The risk of bias was low in few trials. Most studies were from high income countries (Australia=8 and USA=7). Intervention periods (<12 weeks=22, 13-26 weeks=7 and >26 weeks=7) and exercise frequency (1-3 times/week=32 and ≥4 times/week=4) varied between studies. Fear of falling was measured by single-item questions (7) and scales measuring falls efficacy (14), balance confidence (9) and concern or worry about falling (2). Meta-analyses showed a small to moderate effect of exercise interventions on reducing fear of falling immediately post intervention (Standardized Mean Difference (SMD) 0.37, 95% CI 0.18, 0.56; 24 studies; low quality evidence). There was a small, but not statistically significant effect in the longer term (<6 months (SMD 0.17, 95% CI -0.05, 0.38 (four studies) and ≥6 months post intervention SMD 0.20, 95% CI -0.01, 0.41 (three studies)).

Conclusion: Exercise interventions probably reduce fear of falling to a small to moderate degree immediately post-intervention in community-living older people. The high risk of bias in most included trials suggests findings should be interpreted with caution. High quality trials are needed to strengthen the evidence base in this area.

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