

The effectiveness of group and home-based exercise on psychological status in people with ankylosing spondylitis



Implication for clinical practice: systematic review and meta-analysis of randomised controlled trials

Supervised group-based exercise should be considered a preferred strategy for improving psychological well-being and physical function.

Home-based exercise, while less effective than group-based, is still more beneficial than no intervention, particularly for depression.

Greater attention to adherence, standardised exercise protocols, and inclusion of aerobic components is recommended in future interventions.

Context

Primary objective: To determine the effectiveness of group versus home-based exercise interventions on psychological outcomes (depression, anxiety, and mental health) in individuals with AS.

Secondary objective: To identify the mode, frequency, intensity, time, and type of exercise most beneficial to psychological outcomes.

Methods

- RCTs involving adults with AS comparing group- or home-based exercise with each other or with control conditions were included.
- Depression, anxiety, mental health, and other psychological metrics were assessed as outcomes using standardized scales like Beck's Depression Inventory (BDI) and Hospital anxiety depression score (HADS) and short form survey (sf-36).

Results

- 5 RCTs involving 240 participants were included.
- **Depression:** Group-based exercise showed greater improvement in depression than home-based at 6 weeks and 3 months.
- **Anxiety:** One study found a clinically relevant improvement in anxiety with group-based exercise.
- **Mental health:** One study showed a clinically significant improvement in SF-36 mental health scores with group-based exercise with a percentage difference of 20%.
- **Physical function:** Group-based exercise improved physical function more than home-based exercise.
- Spinal mobility and disease activity: No clear improvements with mobility or disease activity was found.
- Limited adherence data and variability in exercise components reduced certainty and clarity regarding optimal protocols.

Reference

Lane, B., McCullagh, R., Cardoso, J. R., & McVeigh, J. G. (2022). The effectiveness of group and home-based exercise on psychological status in people with ankylosing spondylitis: A systematic review and meta-analysis. Musculoskeletal Care, 20(4), 758–771.