LCGA revealed 4 distinct linear and stable trajectories of pain: "no pain" (n=131, 16.2%), "mild pain" (n=269, 33.3%), "moderate pain" (n=247, 30.5%), and "severe pain" (n=162, 20.0%). Compared with the "no pain" group, subjects belonging to the subgroup "severe pain" were more likely to be female (Odds ratio [OR]=5.13, 95% confidence interval [CI]=2.46–10.70), with a high body mass index (BMI) (OR=1.13, 95%CI=1.07–1.20), a high number of comorbidities (OR=1.42, 95% CI=1.13–1.78), a low vitality score (thus a high level of fatigue; OR=0.94, 95% CI=0.91–0.96), a high disease duration (OR=1.06, 95%CI=1.02–1.10), and a low GHQ score (thus a high psychosocial distress; OR=0.94, 95%CI=0.91–0.98).
For physical function, 4 distinct stable trajectories were identified: "no functional limitations" (n=239, 29.6%), "low functional limitations" (n=266, 32.9%), "moderate functional limitations" (n=208, 25.7%), "severe functional limitations" (n=95, 11.8%). In multivariate analyses, female sex (OR=5.11, 95%CI=2.04–12.81), increasing age (OR=1.13, 95% CI: 1.08–1.18), a high BMI (OR=1.15, 95% CI=1.08–1.21), a high number of comorbidities (OR=1.28, 95%CI=1.12–1.61), a low vitality score (thus a high level of fatigue; OR=0.91, 95%CI=0.88–0.93), and a low GHQ score (thus a high psychological distress; OR=0.96, 95%CI=0.93–0.99) were associated with the trajectory of "severe functional limitations".
Conclusions: Based on the 5 year follow-up data, we identified 4 distinct trajectories of pain and 4 trajectories of physical function. None of the trajectories demonstrated worsening or improvement over time, confirming that OA is a chronic persistent disease that does not inevitably worsen.
Disclosure of Interest: None declared
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THURSDAY, 14 JUNE 2018

HPR Interventions (educational, physical, social and psychological)

THU0713-HPR BEHAVIOUR CHANGE INTERVENTIONS TARGETING PHYSICAL ACTIVITY IN ADULTS WITH FIBROMYALGIA SYNDROME: A SYSTEMATIC REVIEW

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Background: Recent EULAR guidelines for the management of fibromyalgia syndrome (FMS) strongly recommend aerobic and strengthening exercise programmes, which demonstrate positive effects on symptoms and physical function.[1] Despite these benefits, physical activity (PA) and exercise promotion remains a significant clinical challenge. Behaviour change theories and techniques are recommended as part of complex health interventions to change health behaviours[2]; their integration into interventions aimed at PA behaviour in people with FMS is not known.
Objectives: To review behaviour change interventions targeting PA and exercise behaviour of adults with FMS.
Methods: A systematic review of quasi-randomised and randomised controlled trials targeting PA behaviour in people with FMS was conducted. Studies were retrieved by searching MEDLINE (OVID), EMBASE, PEDro, PsychINFO, CINAHL, Scopus, Web of Science, and The Cochrane Central Register of Controlled Trials for keywords and medical subject headings relating to FMS, PA and exercise, and behaviour change. Two reviewers independently determined study eligibility. The Cochrane Risk of Bias tool was used to assess risk of bias and data extraction was completed using a standardised template. Due to heterogeneity of interventions and outcome measures, a planned meta-analysis was deemed inappropriate.
Results: The search strategy produced 2117 records, after removal of duplicates. Of these, 6 studies were ultimately deemed eligible for inclusion. Overall, the risk of bias of included studies varied from unclear to high. Median (IQR) study size was 114.5 (91.5) participants, with mean (SD) participant age ranging from 42.5 (7.6) to 53.1 (9.9) years. PA and exercise behaviours were the primary focus of three interventions and were components of broader interventions in three studies. Specific behaviour change theories informed two interventions. The number of behaviour change techniques (BCTs) included in studies ranged from 9 to 21; all interventions included elements of goal setting, problem solving, instruction, demonstration and practice of PA or exercise, and use of credible sources. Two studies reported objective measures of PA (pedometry and accelerometry); no significant improvements were sustained at 6 month follow-ups, although a significant post-intervention increase in steps-per-day favouring a behaviour change intervention compared to an education intervention was reported. Outcomes of self-reported measures of PA were conflicting.
Conclusions: To date, the small number of behaviour change interventions targeting PA in people with FMS have had limited success. This may be partly due to the varying application of behaviour change theories and techniques in interventions. If the potential benefits demonstrated in exercise trials are to be realised, future studies should incorporate behaviour change theories at the core of PA interventions and describe BCTs comprehensively so that the most effective techniques may be idenfitied.

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HPR Professional education, training and competencies

THU0714-HPR INTERPROFESSIONAL COLLABORATION IN RHEUMATOLOGY REHABILITATION – THE CLASH BETWEEN IDEOLOGY AND PRACTICE

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Background: Interdisciplinary collaboration in rheumatology rehabilitation is pivotal in order to meet the complex and multifaceted needs of the patients.[1] However, in practice, an interprofessional approach is hard to achieve.[2]
Objectives: To explore how health professionals working with inpatient rehabilitation at a Danish hospital for rheumatic diseases, experience the interdisciplinary collaboration in practice compared to their ideals. Further, to explore what fosters or prevents interprofessional collaboration.
Methods: In total six focus groups and two individual interviews were conducted with 32 health professionals (HPs) working with rehabilitation. The HPs included occupational therapists, physiotherapists, rheumatologists, nursing staff, a social worker and a dietician. The composition of the focus groups were monodisciplinary, except from one group where nurses and doctors from the outpatient unit were interviewed together. The individual interviews were conducted with a social worker and a dietician, as they were sole employers within these disciplines.
The interviews were transcribed ad verbatim and a thematic condensation and indexing was used in the analysis of the data.[3]
Results: The analysis revealed a clash between ideals about interdisciplinary teamwork and the dominant monodisciplinary work practice. Physical, organisational and cultural factors were perceived as important barriers. Lack of common physical facilities hindered both informal and formal interdisciplinary cooperation. The organisational set up with only one interdisciplinary team meeting before the patients were admitted to hospital and with a lack of rheumatologists´ involvement during admission did not support interdisciplinary teamwork. The existing monodisciplinary work culture acted as a barrier towards both formal and informal collaboration. All these factors led to a lack of knowledge about the contributions from other HPs.
Common physical work and meeting facilities and informal networking fostered interprofessional collaboration.
Conclusions: To support the development of interprofessional teamwork in rehabilitation practice, it is important to consider both common physical work facilities and to change the organisational and cultural factors acting as barriers towards collaboration. Further knowledge about the contributions from other HPs is a prerequisite to interprofessional collaboration.

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HPR Interventions (educational, physical, social and psychological)

THU0715-HPR STRATIFIED EXERCISE THERAPY BY PHYSICAL THERAPISTS IN PRIMARY CARE IS FEASIBLE IN PATIENTS WITH KNEE OSTEOARTHRITIS

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Background: There is strong evidence that exercise therapy is effective in reducing pain and activity limitations in knee osteoarthritis (OA), but effect sizes are low to moderate. Stratified exercise therapy tailored to clinically relevant subgroups of patients is expected to optimise treatment effects in a cost-effective manner.
Objectives: This study aimed to explore the feasibility of a newly developed model of stratified exercise therapy in primary care.
Methods: A mixed method design was used, consisting of an uncontrolled pre-test-posttest design and a process evaluation. Eligible patients visiting a participating primary care physical therapist (PT) were included. Based on our model, participants were allocated to the 'high muscle strength subgroup', 'low muscle strength subgroup', 'obesity subgroup' or 'depression subgroup', and received subgroup-specific, protocolised, 4 month exercise therapy. Feasibility of stratified exercise therapy according to this model was evaluated by a process evaluation (process documentation, semi-structured interviews and focus group meeting) and outcome (physical functioning (KOOS-ADL) and knee pain (NRS), assessed at baseline and 4 months follow-up).
Results: We included 50 patients, of which 3 patients dropped out. The process evaluation suggests that our model is feasible for patients and PTs, with some adaptations for further optimisation. We found clinically relevant improvements on physical functioning (p<0.001; 20%) and knee pain (p<0.001; 37%) for the total group. PTs provided on average 10 sessions, ranging from 2 to 24. The average number of sessions was 6 for the 'high muscle strength subgroup', 12 for the 'low muscle strength subgroup', 13 for the 'obesity subgroup' and 16 for the 'depression subgroup'.
Conclusions: Our model of stratified exercise therapy is feasible in primary care. Minor adaptations could further optimise the feasibility. Future research should determine the (cost-)effectiveness of this model, compared to usual, non-stratified exercise therapy.
Disclosure of Interest: None declared
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THU0716-HPR THE IMPACT OF EXERCISE ON SLEEP IN PEOPLE WITH RHEUMATOID ARTHRITIS: A PILOT RANDOMISED CONTROLLED TRIAL

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Background: Reduced sleep duration and poor sleep quality are prevalent complaints in rheumatoid arthritis (RA). These in turn may further deteriorate functional ability and reduce the person's exercise levels. Current rheumatology guidelines recommend exercise as a key component in the management of RA however, what is lacking is its impact on sleep.
Objectives: To obtain reliable estimates regarding recruitment rates; retention; protocol adherence; adverse events, in addition to producing estimates of the potential effect sizes of the intervention on changes in outcomes of sleep duration; sleep quality and disturbances; RA related pain; depression; anxiety; functional limitation; disease activity and fatigue.
Methods: Participants were recruited in person at weekly rheumatology clinics at a University Hospital and through self-selected social networking. They were randomised to either a walking based exercise intervention consisting of 28 walking sessions, with 1 per week being supervised by a trained physiotherapist, spread over 8 weeks (2–5 times/week), or a control group who received advice on the benefits of exercise for people with RA. Ethical approval was received. Descriptive statistics and t-tests were used to analyse the data with SPSS v22.
Results: One hundred and one (101) people were identified through the rheumatology clinics, with 36 contacting the primary investigator through social networking. Of these, 24 met the eligibility criteria, with 20 being randomised (18% recruitment; 100% female; mean age 57 (SD 7.3 years). Ten exercise participants (100%) and 8 controls (80%) completed final assessments, with both groups being equivalent for all variables at baseline. Exercise participants completed 87.5% of supervised sessions and 93% of unsupervised sessions. No serious adverse events were recorded and through semi-structured interviews the intervention was highly acceptable to exercise participants. Pittsburgh Sleep Quality Index (PSQI) global score showed a significant mean improvement between the exercise group −6.6 (SD 3.3) compared to control −0.25 (SD 1.1) (p=0.012); PSQI subcomponent sleep duration showed a significant improvement in mean hours between the exercise group 1.65 (SD 0.39) and control 0.56 (SD 0.46) (p=0.021); PSQI subcomponent sleep quality indicated those in the exercise group improved their sleep quality from fairly bad/poor to fairly good/very good, while those in control reported no change at fairly bad/poor. Global rating of change indicated exercise participants reporting their sleep was minimally/much improved, while control participants reported no change/minimally worse, post intervention.
Conclusions: The walking based exercise intervention designed to improve sleep was feasible, safe and highly acceptable to study participants, with those participants in the exercise group reporting improvements in sleep duration and sleep quality compared to the control group. Adverse events were predominantly mild. This pilot provides a framework for larger intervention studies and based on these findings a fully powered trial of walking as an exercise based intervention is recommended, preceded by focus groups to investigate methods to improve recruitment of males.
Disclosure of Interest: None declared
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THURSDAY, 14 JUNE 2018

HPR Patients' perspectives, functioning and health (descriptive: qualitative or quantitative)

THU0717-HPR IMPAIRED MUSCLE FUNCTION AND SHOULDER-ARM MOVEMENT IN PATIENTS WITH SYSTEMIC SCLEROSIS

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Background: A few studies report limitations in upper and lower extremity mobility and muscle function in patients with systemic sclerosis (SSc). Little is known about to what extent skin involvement (lcSSc/dcSSc) and lung function (no-mild vs moderate-endstage lung disease) influence active range of motion (AROM) in the shoulder-arms and muscle function i patients with SSc.
Objectives: We aim to examine shoulder-arm AROM, shoulder and hip muscle endurance as well as lower extremity muscle function in patients with SSc in comparision with reference values and also to explore possible differences in function depending on lung function and skin involvement.
Methods: 205 patients, fulfilling the EUSTAR/ACR criteria for SSc, were recruited from the Karolinska University Hospital. AROM in shoulder-arms (Functional Shoulder Assessment, FSA), muscle endurance in shoulder and hip flexion (Functional Index 2, FI-2), and muscle function in the lower extremities (Timed-Stands Test, TST) were assessed and compared with reference values. Patients were classified as to lung disease severity using using sub-items from the SSc disease severity score for lung involvement. Patients with a score of 0–1 were classified as no-mild lung disease and a score of 2–4 as having moderate-endstage lung disease.
Results: SSc-patients had overall more reduced muscle endurance (FI-2,% of predicted) in shoulders 53(27–100) and hips 40(23–90) when compared with reference values, 100(100–100) and 100(72–100) (p<0.001) and patients with moderate-endstage lung disease were more impaired, 39(21–71) and 35(20–70) than no-mild, 57(33–99) and 48(28–100) (p<0.05). No differences were found between dcSSc/lcSSc. All patients, regardless of subgrouping, had lower muscle strength when measured with TST, 21(17–29) seconds, when compared to reference values, 17(15–18) (p<0.001). The FSA-scores was overall lower on both right, 22(20–24) and left, 23(20–24) compared with reference values 23(22–24) and 23(22–24) (p<0.05), especially in patients aged 60 years or more. DcSSc-patients had lower FSA-score than lcSSc-patients (p<0.05). No differences were found between patients with no-mild and moderate-endstage lung disease.