**Objectives:** To explore the feasibility and preliminary efficacy of a web-based, peer-supported exercise program for people with hip or knee OA.

**Methods:** This study was a single-group, post-pre feasibility study. Patients aged 40-80 years with hip or knee OA who were not candidates for surgery were eligible. The 12-week intervention was delivered through a patient-organizations (The Norwegian Association for Rheumatic Diseases) web-based platforms, and included weekly exercise programs, weekly motivational messages, an OA and exercise website and assigned peer-supporters. Feasibility was evaluated by calculating the proportion of eligible patients who were enrolled and retained at follow-up, as well as time resources used on delivery of the intervention. Acceptability was evaluated by calculating proportion of patients who had valid baseline accelerometer data and completed the maximal cardiorespiratory exercise test according to protocol. Primary efficacy measures were change in PA assessed by accelerometers and change in exercise capacity (VO2peak) assessed by indirect maximal cardiorespiratory exercise test. Secondary efficacy measures were change in patient reported outcomes assessed by HOOS and KOOS (www.koos.nu) (a 10-point change in normalized scores was considered a minimally important change). Data was analysed using paired sample t-test, given as mean change (95% confidence interval) and p-values.

**Results:** We identified 49 eligible patients of which 35 (71%) consented and were enrolled. Among those who consented, 22 (63%) were retained. Time resources used on delivery of the exercise programs and motivational messages were mean (SD) 7.3±1.1 min per week/patient. Compliance with wearing the accelerometer was mean (SD) 6.1±1.0 valid days (mean (SD) 13.8±1.3 hours/day). Twenty (67%) out of 30 patients who attended baseline testing performed the maximal cardiorespiratory exercise test, of which 18 completed according to protocol. Due to Covid-19 restrictions, follow-up testing of primary efficacy measures was included only eight patients. For these patients there was a significant increase from baseline to follow-up on moderate-to-vigorous PA (mean change 16.4 units, p<0.005) and VO2peak (mean change 1.83 ml/min/1.0 kg/min; 95% CI 0.29, 3.36, p=0.026). Across all secondary efficacy measures 30-52% of the patients (n=21) improved from baseline to follow-up (Figure 1).

**Conclusion:** Overall, the examined study processes were considered to be feasible and acceptable. Some minor amendments should be applied to improve the recruitment and retention rate before it can be carried out in a larger trial. The efficacy results should be interpreted with caution due to the small sample size. However, if the positive results in this study are confirmed in a power-calculated randomised controlled trial, our novel follow-up strategy may be implemented from baseline to follow-up on moderate-to-vigorous PA (mean change 16.4 units, p<0.005) and VO2peak (mean change 1.83 ml/min/1.0 kg/min; 95% CI 0.29, 3.36, p=0.026). Across all secondary efficacy measures 30-52% of the patients (n=21) improved from baseline to follow-up (Figure 1).

**References:**


**Disclosures of Interests:** None declared

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