SAT0521 INCREASING PHYSICAL ACTIVITY IN OLDER PEOPLE WITH PAIN. PRELIMINARY RESULTS OF THE IPOPP PILOT TRIAL

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Background: Chronic (≥3 months) pain is associated with physical inactivity in older (≥65 years) people. Walking is an acceptable form of physical activity with health benefits. We have developed Increasing Physical Activity in Older People with Pain (iPOPP), a brief intervention to increase walking.
Objectives: To assess the acceptability and credibility of iPOPP, and to test the feasibility of trial processes, in a pilot randomised controlled trial.
Methods: Eligible responders to a screening questionnaire (≥65 years; consulted their general practitioner for chronic pain; Chronic Pain Grade score ≥2) collected 7-day accelerometer data before randomisation and at the end of follow-up. Participants were randomised to one of Usual primary care; Pedometer, walking diary, pain toolkit (written pain management information); or iPOPP comprising *week 1* face-to-face Health Care Assistant (HCA) consultation to develop a walking action plan, pedometer, walking diary, pain toolkit, discussion of walking behaviour and barriers, goal setting; *week 2* follow up face-to-face or telephone (participant preferred) HCA consultation to review progress and goals, relapse prevention strategies; *weeks 3–10* weekly motivational prompts (participant preferred postcard, email or text). A follow-up questionnaire was sent 12 weeks post-randomisation.
Success criteria were: 7% of those screened would be eligible, return an accelerometer and be randomised; follow-up rates ≥75% of those randomised; ≥50% of those in iPOPP would complete week 1 and 2 intervention sessions; and a median score of ≥5/10 across a four-item intervention acceptability and credibility questionnaire.
Results are number (%) or median (inter quartile range (IQR)).
Results: Of 2326 people mailed, 1256 (54%) responded and 695 (30%) were eligible. After mailing study information to 425 eligible participants, 161 (38%) agreed to participate, 159 (12% of those mailed) returned an accelerometer and were randomised, 7 withdrew, and 136 (86%) returned a follow-up questionnaire. Of those randomised to iPOPP 82% completed week 1 and 2 intervention sessions; 32% had a face-to-face week 2 follow-up; 48% preferred postcard motivational prompts, 10% email, 22% text, and 20% had no preference. Median (IQR) acceptability and credibility scores were: "how logical is treatment?" 8 (3, 9.8), "confidence in treatment success" 5.5 (3, 8), "would recommend treatment to friend" 7 (3.3, 9), and "treatment would be successful for another pain problem" 5 (3, 7.8). 152 participants were mailed a follow-up accelerometer and 144 (95%) were returned. 147 (91%) baseline and 117 (81%) follow-up accelerometers had useable data.
Conclusions: These data demonstrate the acceptability and credibility of the iPOPP intervention, and the feasibility of proposed trial processes. The effectiveness of iPOPP compared with usual care will be tested in a future main trial.
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SAT0522 SEARCHING FOR THE OPTIMAL TIMING FOR PREVENTIVE WEIGHT REDUCTION STRATEGIES FOR KNEE OSTEOARTHRITIS DEVELOPMENT

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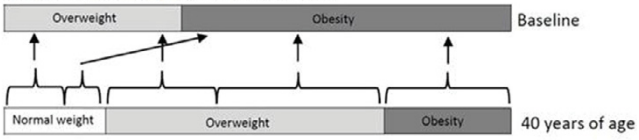
Background: We previously showed that middle-aged women free of clinical knee osteoarthritis (OA), but at high-risk for future OA development due to a BMI ≥27 kg/m^2, had a high prevalence of OA features on MRI [1]. Subjects with a steadily decrease in body weight over 30 months (-9.0±7.2 kg), did not show a significantly different progression of these features, compared to those without loss in body weight [2].
Objectives: To explore the effects of differences in body weight in the years prior to inclusion on the prevalence of knee OA on MRI at baseline, to discuss the optimal timing for preventive weight loss strategies for OA development.
Methods: Data from the PROOF study (ISRCTN 42823086) were used [3]. At baseline, women aged 50–60, with a BMI ≥27 kg/m^2 were recruited. At inclusion, the women were free of clinical knee OA. At baseline, all participants filled-in a questionnaire for demographic data, including body weight at age 40, and body weight and height were measured. BMI at 40 years and at baseline was calculated and classified into normal weight (BMI <25 kg/m^2), overweight (BMI ≥25 and <30 kg/m^2) and obesity (BMI ≥30 kg/m^2). MRI scans of both knees was made on a 1.5 Tesla scanner. All MRIs were scored using the semi-quantitative MRI Osteoarthritis Knee Score (MOAKS) and MRI OA was defined in all knees was defined using published definitions [4]. Using logistic regression, the percentages of women with MRI OA, with unilateral MRI OA, bilateral MRI OA, and with ≥2 affected compartments were compared, using the normal/overweight group as reference.
Results: 374 women had all baseline measurements available and were selected. At baseline, 127 women were overweight and 248 were obese. Mean age was 55.7±3.2 years. Of the baseline obese women, 11% (26 women) reported normal weight, 52% (130 women) overweight and 37% (92 women) obesity at 40 years. Of the baseline overweight women, 39% (49 women) reported normal weight, 61% (77 women) overweight and 1 woman reported obesity at 40 years (see figure).
Baseline prevalence of MRI OA, of unilateral/bilateral MRI OA, and the percentage of women with ≥2 affected compartments, out of both TF and both PF compartments, are presented in the table.

Baseline and 40-years BMI groups and their course*.



*the one overweight woman at baseline that reported obesity at 40 years was omitted for clarity reasons

Prevalence of MRI OA for different subgroups by BMI course.

BMI group at 40 years	BMI group at baseline	N*	Prevalence of MRI OA overall (uni-/bilateral/2+ compartments)
Obesity	Obesity	92	44%# (25%# / 19%# / 23%#)
Overweight	Obesity	130	32%# (25%# / 7% / 9%)
Normal weight	Obesity	26	23% (15% / 8% / 12%)
Overweight	Overweight	77	27% (22% / 5% / 12%)
Normal weight	Overweight	49	16% (10% / 6% / 6%)

N = number of women. *the one overweight woman at baseline that reported obesity at 40 years was omitted for clarity reasons. #Significant difference compared to 'normal/overweight' group (p < 0.05).

Conclusions: Women with higher body weight at 40 years showed higher prevalence of knee OA on MRI at the age of 56. It is highly questionable whether OA related structural abnormalities seen on MRI are reversible. It is suggested that body weight reduction around the age of 40 might be much more effective for the prevention of future knee OA development than it would be at the age range of 50 to 60 years, where radiographic and clinical knee OA usually develops.
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SAT0523 NO TREATMENT EFFECTS OF ORAL GLUCOSAMINE FOR SUBGROUPS OF KNEE AND HIP OSTEOARTHRITIS PATIENTS; AN INDIVIDUAL PATIENT DATA META-ANALYSIS FROM THE OA TRIAL BANK

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Background: The effectiveness of oral glucosamine for symptoms of osteoarthritis (OA) is debated. Individual trials are not powered to show effects within subgroups of patients.
Objectives: To evaluate the effectiveness of oral glucosamine in clinical relevant subgroups of hip and knee OA patients based on pain severity, BMI, sex, structural abnormalities and inflammation, using individual patient data from published trials.
Methods: A systematic search for published randomized controlled trials on the effectiveness of any oral glucosamine substance in patients with clinically or radiologically defined knee or hip OA was performed. Additionally, trail registries were searched for ongoing studies. All authors and institutions of all eligible studies were approached and asked to share the trial data. All shared trials were assessed for their risk of bias, using the criteria recommended by the Cochrane. Missing data for covariates and outcome measures were imputed, using multiple imputation methods, within each original study. Subgroup factors were dichotomized, based on consensus of the OA Trial Bank Steering Committee. A multilevel regression analysis was performed to estimate the magnitude of the effect of glucosamine over the control intervention in the different subgroups with the individuals nested within each study. Pain at short-term (3 months)