easy" to complete; remaining responses: "neutral" 20%, "somewhat difficult" 10%, "extremely difficult" 0%.

Conclusion: We have created and tested a system of remote clinical management for patients with RA and AS. Amongst the 108 responders, just 31% required a face-to-face appointment, with treatment changes made accordingly. With a backlog of 3,800 awaiting allocation to follow-up appointments, remote clinical management will allow us to safely and efficiently prioritise patients requiring urgent follow-up for treatment optimisation. We will integrate this system into our standard care pathway beyond the COVID-19 pandemic to streamline our service, deliver effective care and provide evidence to support the use of costly biologic drugs.¹ We plan to investigate the barriers for non-responders.

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POS0153-HPR IDENTIFYING TARGETS FOR BEHAVIOURAL INTERVENTIONS IN FIBROMYALGIA: PHYSICAL ACTIVITY BEHAVIOUR

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Background: There has been much interest in the efficacy of exercise and physical activity interventions in people with Fibromyalgia. This has resulted in guidelines recommending exercise as the first line of management (Macfarlane et al., 2017). Notwithstanding the efficacy of exercises, adherence to structured exercise and interventions aiming to increase physical activities remains a considerable challenge in this population. Exploring behavioural factors that may hinder exercise and physical activity participation in people with Fibromyalgia may help to identify targets for interventions to improve adherence and engagement with physical activities and support self-management.

Objectives: To explore people with Fibromyalgia's perspectives on the personal, social and contextual factors impacting their physical activity behaviour and pain perception.

Methods: Twelve participants with Fibromyalgia were recruited from Social Media, Fibromyalgia charities, organisations and associations across the UK. Semi-structured, one-to-one in-depth telephone interviews were conducted with each participant. Interviews were audio-recorded and transcribed verbatim. Qualitative data analysis was conducted by two researchers independently, using Thematic Analysis. Critical Realism framework was employed to inform the interpretation of the findings.

Results: Four main themes emerged from the data: (i) Lack of guidance on physical activity: most participants expressed increased pain intensity following a vigorous physical activity which, have led to spending more time on sedentary behaviour to recover from pain. (ii) Participants expressed fear of fatigue as a barrier to physical activity participation: This also led to increased sedentary and protective behaviours. (iii) Impact of treatments on physical activity: Participants who received multimodal therapies and patient education reported better coping strategies e.g., pacing physical activities and less pain. (iv): Impact of social support on physical activity participation: Participants felt that a lack of understanding from employers, their family and friends and the wider society has negatively impacted their physical activity behaviours, access to workplace support and psychological wellbeing.

Conclusion: A multimodal approach, incorporating patient education with behavioural components is essential to increase adherence to and engagement with exercise and physical activity interventions to support self-management of Fibromyalgia. There is a need to improve the public perception of this syndrome to increase social and workplace support.

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POS0154-HPR FACTORS FACILITATING THE SELF- AND SHARED-MANAGEMENT OF JIA BY CHILDREN, YOUNG PEOPLE, THEIR FAMILIES, AND PROFESSIONALS INVOLVED IN THEIR CARE: A REALIST EVALUATION

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Background: Juvenile idiopathic arthritis (JIA) is a long-term condition, often requiring some element of lifelong management. Therefore, it is logical that children and young people are empowered to become competent at self-managing their health and wellbeing, while families are supported in their shared-management role during childhood, relinquishing control at age- and developmentally appropriate periods in their child's development. However, there are limited theoretical foundations underpinning optimal self- and shared-management support for children, young people and families living with JIA.

Objectives: To explain the factors facilitating the self- and shared-management of JIA by children, young people, and their families, with professional support from healthcare professionals, third sector organisations, and education professionals.

Methods: Guided by the Individual and Family Self-management Theory and the Shared Management Model, a three-stage realist evaluation was undertaken: 1) initial JIA self- and shared-management question theories were elicited from a document review, integrative review, and stakeholder insights [1]; 2) seven initial question theories were tested using qualitative research methods with 20 participants (young people, families, healthcare professionals, education professionals, and third sector representatives); 3) analysis of findings using a theory-driven approach to thematic analysis, in order to identify demi-regularities to extend or refute the initial question theories. The analysis drew on deductive, inductive, and retroductive reasoning.

Results: There were six refined JIA self- and shared-management question theories: 1) meaningful and bespoke self-management support across the life course for children and young people with JIA; 2) recognised and valued shared-management support for the families of children and young people with JIA, with autonomy in mind; 3) individual healthcare plans as a shared management communication tool to facilitate optimal management of JIA; 4) consistent recognition, value, and encourage of self- and shared-management support from the paediatric rheumatology multi-disciplinary team and associated professionals; 5) child, young-person, and family-focused paediatric rheumatology care and support services across the lifecourse; and 6) bespoke and inclusive approaches by education providers to enable children and young people with JIA to feel safe, supported, and able to fulfil their potential.

Conclusion: There is an increasing recognition of the importance of self- and shared-management of JIA. However, there is a lack of an overall, cohesive approach to self- and shared-management between healthcare providers, education providers, and the third sector. Findings from this study illuminate the factors facilitating JIA self- and shared-management at individual, interpersonal, institutional and infrastructural levels. Further work is required to empirically test these refined question theories with interventions designed to enhance JIA care, education, and support.

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POS0155-HPR DIAPHRAGMATIC BREATHING RELAXATION TECHNIQUE TO DECREASE ANXIETY DURING JOINT INFILTRATION: A RANDOMIZED CONTROLLED TRIAL

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Background: Joint infiltration is the injection of therapeutic substances directly into a joint. It may be a stressful experience for patients as imagined different from other usual injections. Several techniques are used to manage anxiety and pain during such a procedure.

Objectives: To evaluate the effectiveness of diaphragmatic breathing relaxation on reducing anxiety and pain during joint infiltration.

Methods: Patients scheduled for a joint infiltration at the rheumatology department's daycare unit were recruited. All infiltrations were performed using steroids without anesthetic therapy except for the hip. Patients were randomized into two groups (cases=38, controls=34). Cases learned from a trained health agent diaphragmatic breathing relaxation technique to perform it immediately before and during the procedure while controls received the usual procedure. We used the Visual Analogue Scale (VAS) to assess self-estimated both anxiety (VAS-Anx) and pain (VAS-Pain) as evaluated on pre and post-joint infiltration. VAS-Pain was evaluated as expected then as experienced respectively on pre and

post-infiltration. We also assessed heart rate and blood pressure on pre and post-procedure.

Results: Seventy-two participants were included with a mean age of 55.48 $\pm$ 12.39 years (39-78), treated for an inflammatory rheumatic or degenerative disease (21, 51 respectively), and receiving joint infiltration for the first time among 37. Sites of infiltrations were: wrist=7, elbow=10, shoulder=17, hip=1, knee=22, epidural=6, plantar heel=9. There were no significant differences in pre-procedural

VAS-Anx, VAS-pain, or physiological parameters between cases and controls. Cases had a significant decrease in VAS-Anx from pre to post-infiltration (Mean post-VAS-Anx=23.33/100, $p=0.017$) but not significant compared with controls ($p=0.297$). Patients who have performed the breathing technique had no significant decrease in VAS-Pain from pre- to post-infiltration ($p=0.083$) and compared with controls ($p=0.662$). Physiological parameters showed a significant decrease in heart rate of cases from pre to post-infiltration ($p<0.0001$) and compared with controls ($p=0.036$), but no significant decrease in systolic or diastolic blood pressure from pre to post-infiltration and compared with controls. There were no correlations between all participants' VAS-Anx/VAS-Pain and age, gender, infiltration site or history and joint pain causes.

Conclusion: This study suggests that diaphragmatic breathing relaxation is an effective nonpharmacological intervention that could be used in controlling anxiety and experienced pain during joint infiltration.

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POS0156-HPR 'THE RIGHT ADVICE, IN THE RIGHT WAY AND AT THE RIGHT TIME': AN INNOVATIVE MULTIDISCIPLINARY APPROACH TO ADDRESS CLIENT-IDENTIFIED PARTICIPATION NEEDS IN EARLY INFLAMMATORY ARTHRITIS

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Background: Inflammatory arthritis (IA) is a complex life-long disease with negative consequences on occupational performance and significant impact on meaningful life roles. International guidelines for the clinical management of IA consistently recommend early intervention and a multidisciplinary (MDT) approach as the optimum method to address the medical, symptom and broader life impacts, however, barriers to timely access to the MDT is a common issue in clinical practice. Limited research has explored how clinical services support broader life impacts and participation restrictions associated with early disease as part of routine healthcare. Four rheumatology services in Ireland have recently reconfigured to provide an MDT-led early arthritis service which operates in parallel to traditional medical clinics. Staffed by nurses, occupational therapists, and physiotherapists this service provides assessment and management to clients with a new diagnosis of IA along a model of care within four to six weeks of diagnosis with mechanisms to follow the client over their first year of diagnosis.

Objectives: To explore how a novel MDT-led early arthritis service addresses client-identified participation restrictions associated with early IA.

Methods: A qualitative description (QD) study was used to explore the perspectives of service providers and service users of this MDT-led early arthritis service. Data were gathered using one-off focus groups with service providers, and individual interviews with service users.

Results: All staff ($n=15$) currently working in these services participated in the focus groups. Forty-three service users with IA participated in individual interviews (males $n=12$; females $n=31$); diagnosis duration ranged from 5 to 24 months. QD principles and thematic analysis were used in data analysis.

Extensive limitations in everyday activity and restriction in participation in meaningful, age-appropriate life roles in early IA were outlined by service users and service providers. Participants described how the MDT-led model provided automatic and immediate access to services focussed on identification and management of occupation-based participation restrictions early in the disease. Participants described how the model used a flexible approach that ensured; ease of early access to a full MDT, prolonged support from the MDT, and a person-centred approach incorporating social prescribing and self-management principles. Service users emphasised the strength of the MDT approach of providing 'the right advice, in the right way and at the right time' as the most influential feature that assisted them to address participation restrictions and support positive health outcomes. This was accomplished by the service providers acting in a coordinated and interdisciplinary manner with a clear remit to address participation restrictions alongside the traditional symptom management approach. Findings highlight the feasibility of the MDT-led early arthritis model as an approach to address participation-based restrictions as part of routine healthcare that delivers on the rheumatology guidelines and was positively regarded by both service users and service providers.

Conclusion: Findings provide important insights into the role of an innovative early MDT intervention approach in addressing client-identified participation needs in early IA. This model maps onto the Irish rheumatology model of care (HSE, 2018), 'right place, right time' approach but importantly includes a 'right way' approach which is identified as influential in the effective delivery of client-focused and client-centred care.

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POS0157-HPR CONSTRUCT VALIDITY OF THE OCTOPUS STRATIFICATION ALGORITHM FOR ALLOCATING PATIENTS WITH KNEE OSTEOARTHRITIS INTO CLINICALLY RELEVANT SUBGROUPS

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Background: We recently developed a model of stratified exercise therapy [1], consisting of (i) a stratification algorithm allocating patients with knee osteoarthritis (OA) into clinically relevant subgroups, and (ii) subgroup-specific exercise therapy. More specifically, in our model we distinguish the following subgroups with proposed underlying phenotypes: 'high muscle strength subgroup' representing a post-traumatic phenotype, 'low muscle strength subgroup' representing an age-induced phenotype and 'obesity subgroup' representing a metabolic phenotype.

Objectives: In the present study, we aimed to validate the construct of this algorithm, focusing on 3 research questions: (i) are the proportions of patients in each subgroup similar across cohorts?; (ii) are the characteristics of each of the subgroups in line with their proposed underlying phenotypes?; (iii) are the effects of usual exercise therapy in the 3 subgroups in line with the proposed effect sizes?

Methods: Data from five studies (four trials and one cross-sectional cohort) were used to validate the construct of our algorithm by 63 a priori formulated hypotheses regarding the research questions.

Results: Baseline data from a total of 1,211 patients with knee OA were analyzed for the first and second research question, and follow-up data from 584 patients who were part of an exercise arm within a trial for the third research question. In total, the vast majority (73%) of the hypotheses were confirmed. Regarding our first research question, we found similar proportions in each of the three subgroups across cohorts, especially for three cohorts. Regarding our second research question, subgroup characteristics were almost completely in line with the proposed underlying phenotypes. Regarding our third research question, unexpectedly, usual exercise therapy resulted in similar, moderate to large effect sizes for knee pain and physical function for all three subgroups.

Conclusion: This study suggests that our algorithm might be a valid instrument to allocate patients with knee OA into clinically relevant subgroups, as most of our a priori hypotheses could be confirmed. On the other hand, subgroups did not differ substantially in effects of usual exercise therapy, contrary to our expectation. An ongoing trial [1] will assess whether this algorithm accompanied by subgroup-specific exercise therapy improves clinical and economic outcomes.

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POS0158-HPR UNDERSTANDING NURSE-LED CARE IN EARLY RA: INTERVIEW STUDY WITH RHEUMATOLOGY NURSE SPECIALISTS

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