HPR: From prevention to management

OP0121-HPR THE SELF- AND SHARED-MANAGEMENT OF JIA: A NEW FRAMEWORK FOR RESEARCH, POLICY, AND PRACTICE

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Background: Juvenile idiopathic arthritis (JIA) is a complex long-term condition requiring lifelong management [1]. Children and young people (CYP) should be empowered to self-manage their health and wellbeing (H&W) from diagnosis [2], while families should be supported in their shared-management role [3]. Self- and shared-management (SSM) interventions can be used to develop SSM capacity [4]; however, few studies have explored SSM in this population.
Objectives: To develop a framework to promote JIA SSM, applicable to CYP, families, and professionals involved in their healthcare, wellbeing, and education.
Methods: Using a realist approach [5] and underpinned by the individual and family self-management theory [6], evidence syntheses and a qualitative study were undertaken to identify, test, and refine a series of theories promoting JIA SSM. The theories developed and tested were referred to as 'question theories', akin to programme or intervention theories, written at a middle level of abstraction to map theory for future research. Twenty stakeholders were interviewed using a teacher-learner cycle approach. Data were analysed using hybrid deductive-inductive thematic analysis and were integrated into a framework promoting JIA SSM at a higher level of abstraction.
Results: Six refined question theories outlining the mechanisms by which the SSM of JIA is likely to transpire, and the different contexts under which interventions achieve their desired outcomes, were developed, and assimilated into a new, JIA-SSM framework. Within the framework, four levels of context related to SSM were identified. These were at an individual and interpersonal level of CYP, families and professionals, and at institutional and infrastructural levels across health and social care, education, and voluntary sectors. Individual healthcare plans can also act as shared-management tools to facilitate communication between CYP, families, and professionals across healthcare, wellbeing, and education.
Conclusion: The JIA-SSM framework encourages a shift towards a multi- intervention, multi-disciplinary, multi-agency approach which works with CYP and families in equipping them with the knowledge, skills, and behaviours to competently manage their H&W. Further research is recommended to apply and validate this framework in practice, to aid future design, delivery, evaluation, and implementation of SSM interventions in JIA.
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OP0122-HPR DEVELOPMENT OF A SMARTPHONE APPLICATION FOR TREATMENT OF HAND OSTEOARTHRITIS – HAPPY HANDS

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Background: International recommendations state that all patients with hand osteoarthritis (HOA) should receive education and training in ergonomic principles, use of assistive devices and hand exercises as first-line treatment (1). However, research shows that the quality-of-care service in general is sub-optimal for this patient group, with few patients receiving recommended first-line treatment before being referred to specialist healthcare (2).
Objectives: To make recommended treatment available for patients with HOA by developing a user-friendly self-management application (H*APP*Y Hands).
Methods: The development process was conducted four phases: 1) information needs analysis and patient interviews; 2) app illustrations and prototype development; 3) heuristic evaluation; and 4) pilot-testing.
Two patient research partners were involved in developing the content of the app. Researchers, in collaboration with experienced clinicians, the patient research partners and professional film photographers and animators, developed short informational videos and animations. Illustrations and a prototype of the app was developed in five two-week iterations by the University Center for Information Technology at the University of Oslo (Figure 1). Digital meetings were conducted at the end of each two-week iteration, where illustrations and prototype were discussed with developers, researchers, and patient research partners, informing the next iteration. The H*APP*Y Hands app will be pilot tested in 70 participants with HOA, simultaneously assessing the feasibility and usability of the app.

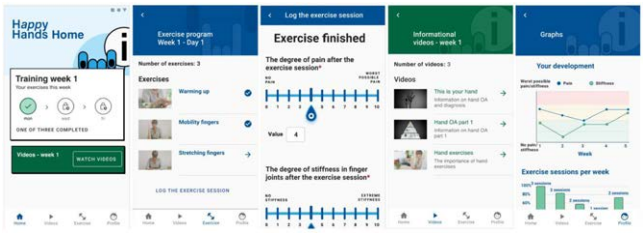

Figure 1. Illustrations of the Happy Hands smartphone application

Results: The prioritized content themes presented by the patient research partners were 1) information about hand OA; 2) goal setting, motivation, and self-efficacy; 3) assistive devices; 4) hand exercises; 5) orthoses; and 6) communication. The app was developed based on a combination of behavioural change techniques informed by Social cognitive theory and the EULAR recommendations on management of HOA. The 12-week intervention consists of 25 short informational videos addressing the prioritized themes. Additionally, the intervention includes a hand exercise program consisting of 8 videos providing instructions on warm up, exercises to improve mobility, strength and coordination, and a stretching exercise. The informational videos and exercise program are delivered in a progressive order over the 12 weeks. When downloading the app, participants are asked to specify when they plan to use the app (three days a week with time points). Thereafter, the patients get a notification on their smartphone with that week's informational videos and hand exercises at the specified days. After each exercise session the patients are asked to rate their pain and stiffness. Their answers are used to generate graphs that visualise their development over the 12-week intervention period. Each month, patients also answer questions about hand function, which they can use to self-monitor their development. Encouragement and motivational messages are provided each week to enhance continued adherence to the intervention. To date, 60 patients have been included in pilot testing of the app.
Conclusion: In this study we successfully implemented a user-centred and iterative approach to develop a e-self-management intervention for treatment of patients with hand OA. The 12-week follow-up in the pilot study will be finished medio May 2022.
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OP0123-HPR INVESTIGATION OF THE EFFECTS OF UPPER EXTREMITY HOME EXERCISES ON GRIP STRENGTH, RANGE OF MOTION, ACTIVITY PERFORMANCE AND FUNCTIONALITY IN INDIVIDUALS WITH SCLERODERMA

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