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# Helping Hand. A Joint Protection Program for people living with Hand Osteoarthritis

**Dimitra V Pouliopoulou, PT, PhD(cand)**

## **Committee Members**

- Dr. Joy C Macdermid
- Dr. Pavlos Bobos
- Dr. Emily Lalone



## Overview

- Development of the Content and the Delivery Features of the new Joint Protection Program
- Review of the program
- Next steps – Testing of the new Joint Protection Program



## **Study 1. A structured elicitation of patients' needs and preferences in the content of a Joint Protection Program using Mixed Methods.**

- Part 1: Survey to identify what task and activities people living with Hand OA find the most problematic.
- Part 2: Qualitative interviews using interpretive descriptive study design to gain a deeper understanding on what makes these tasks more problematic and why.



## Study 1. A structured elicitation of patients' needs and preferences in the content of a Joint Protection Program using Mixed Methods.

- Using an Explanatory Sequential Design, a survey of 196 participants (88% female, mean age  $66 \pm 8$  years) identified priority activities and challenges for patients with HOA.
- Key Activities of Daily Living, Occupational and Functional tasks, were rated using a 5-point Likert scale, with a Relative Importance Index (RII) calculated for each item.



## Study 1. A structured elicitation of patients' needs and preferences in the content of a Joint Protection Program using Mixed Methods.

- Quantitative analysis identified high-importance tasks, such as buttoning, gripping, and twisting, with RII scores exceeding 80%, indicating strong positive sentiment. Functional impairments included issues with precision grip and gross motor tasks, and pain interference disrupted daily activities and social roles.
- Informed **interview guide** to gain a **deeper understanding** on what it is about these tasks that makes them problematic and to explore domains that are overlooked in current JJP (e.g., hobbies, social and caregiving roles).



## Study 1. A structured elicitation of patients' needs and preferences in the content of a Joint Protection Program using Mixed Methods.

- Guided recruitment of **underrepresented groups** to allow for a deeper exploration of **intersectionality's impact** on accessing and adopting current and future JP strategies
- Qualitative semi-structured interviews with 20 purposefully sampled participants provided in-depth insights into lived experiences with HOA and preferences in JPPs.



## **Study 1. A structured elicitation of patients' needs and preferences in the content of a Joint Protection Program using Mixed Methods.**

Our purposeful sampling ensured that:

- 20% of the interview population was individuals living with disability,
- 25% were immigrants,
- 25% had English as a second language,
- 15% had not received university-level education,
- 30% lived in rural areas,



## Study 1. A structured elicitation of patients' needs and preferences in the content of a Joint Protection Program using Mixed Methods.

- 25% were employed,
- 5% were on disability support,
- 30% lived alone,
- 15% lived in larger households,
- 37% had carrying responsibilities.

Qualitative themes revealed the importance of strategies for sustaining meaningful activities, patient support communities, and barriers related to accessibility, including technological literacy and caregiving responsibilities.



## **Study 2. A structured elicitation of patients' preferences and priorities in the delivery of a Joint Protection Program using a Discreet Choice Experiment.**

- Part 1: Focus groups to identify patients' preferences in the delivery of a Joint Protection Program
- Part 2: Survey to quantify the results of the focus groups and examine patients' priorities



## **Study 2. A structured elicitation of patients' preferences and priorities in the delivery of a Joint Protection Program using a Discreet Choice Experiment.**

- Remotely delivered through an online platform in a hospital website
- Self paced
- Short videos in an interactive platform that allows to bookmark, skip, and review content as needed
- Priorities in interactive delivery included clinician support, hearing other patients' stories, and engaging in conversations with other patients to promote a sense of belonging



# Joint Protection Program - Content

Organised in 6 Modules (4 Asynchronous; 2 Live Modules)

## **Module 1: The Principles of Hand OA and Joint Protection**

- Video 1: What is Hand Osteoarthritis?
- Video 2: What is Joint Protection?

## **Module 2: Pacing and Prioritizing**

- Video 1: What is Pacing?
- Video 2: What is Prioritizing?
- Video 3: Asking for Help

[https://rise.articulate.com/share/Tvy\\_-X\\_x7EoWSaasIWL66uWAtHpUSHyv](https://rise.articulate.com/share/Tvy_-X_x7EoWSaasIWL66uWAtHpUSHyv)



# Joint Protection Program - Content

## Module 3: Joint Protection Strategies

This module will provide interactive slides with different rooms around the house/office and the participants will be able to click on specific items (i.e.: dresser, bed, desk) and learn how to modify their activities and use aids and ergonomic tools



# Joint Protection Program - Content

## Module 4: Patient Stories

This module will be pre-recorded, and we will invite one of our patient partners who has expressed interest to have a more active role in the creation of the intervention to talk about their experiences living with HOA.



# Joint Protection Program - Content

## **Module 5: Learning from others**

- Session 1: Tools and Aids
- Session 2: Changing the task
- Session 3: External Resources

## **Module 6: Clinician Q & A**

- Session 1: Nutritionist
- Session 2: Hand Therapist
- Session 3: Psychologist



# Next Steps

## Study 3. Usability Testing on the new Joint Protection Program.

- Qualitative study involving two sessions of usability testing conducted remotely via Microsoft Teams.
- The sessions will utilize a combination of think-aloud and eye-tracking technology to evaluate user interaction with the platform and identify any usability issues.



## Study 4. Feasibility and Acceptability of the new Joint Protection Program.

- Open-label, parallel group, randomized pilot feasibility trial
- Evaluate the acceptability of the program and the feasibility of conducting a full-scale trial to assess the effectiveness of the program

Single-centre specialized tertiary hand clinic:

- **Roth | McFarlane Hand and Upper Limb Centre (HULC)** in London, Ontario



## Study 4. Feasibility and Acceptability of the new Joint Protection Program.

### Feasibility Outcomes

- Recruitment rates
- Randomization
- Adherence
- Attrition rates
- Clinical outcome measure completion at baseline, 4, 8, and 12-weeks after randomization

### Acceptability of the Intervention



## Study 4. Feasibility and Acceptability of the new Joint Protection Program.

### Primary Outcome of fully powered RCT

Pain intensity at 12-weeks measured by the pain subscale of Patient-rated Wrist/Hand Evaluation (PRWHE)

### Pain and Function:

- Patient-rated Wrist/Hand Evaluation (PRWHE)
- Single Assessment Numeric Evaluation (SANE)

### Adoption of JP Strategies

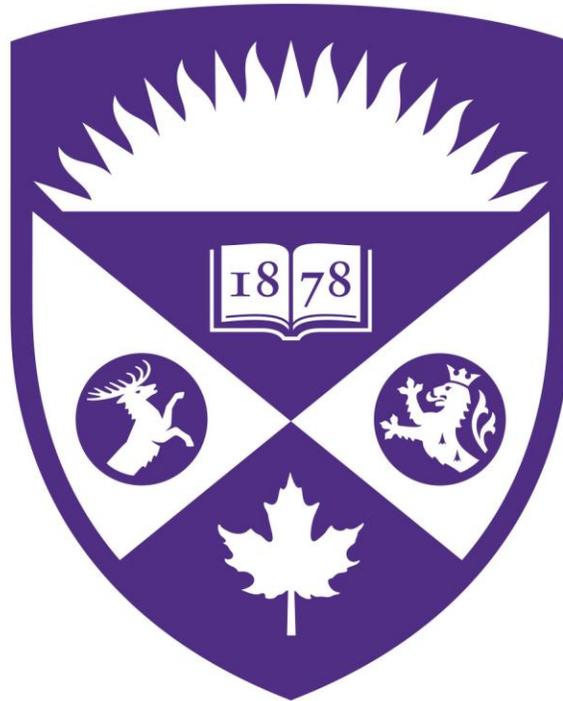
- Joint Protection Behaviour Assessment

### Quality of life:

- EQ-5D

We will also monitor co-interventions, medication use, and adverse events.





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