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**Study Domain:** Psychology of pain

**Study design:** cohort study

**Preferred presentation style:** poster

**Title: Does task- and context-specific fear of movement play a role in the development and persistence of pregnancy-related lumbopelvic pain?: Study protocol**

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**Abstract:**

### Introduction

Pregnancy-related lumbopelvic pain (PLPP) affects up to 90% of pregnant women and may persist for years postpartum but its multifactorial causes are poorly understood [1]. Incorporating a biopsychosocial framework may help unravel why PLPP develops and persists. The Fear-Avoidance Model of Pain proposes that pain-related beliefs, rather than pain itself, influence recovery. In the general low back pain population, fear of movement (FoM) has been identified as a key mechanism in pain persistence. Associations between FoM and PLPP prevalence have also been observed with studies relying on generic questionnaires to assess FoM [2]. However recent studies suggest that FoM can be highly task- and context-specific: individuals may only fear certain activities in certain contexts, which generic questionnaires may miss [3].

This study aims to (1) characterise the activities during which pregnant women with PLPP have a reluctance to move and compare these to activities reported by those without PLPP, (2) explore associations between task- and context-specific FoM, fear-avoidance beliefs, pain catastrophising, depression, and anxiety in women with PLPP, and (3) determine if task- and context-specific FoM predicts the onset and persistence of PLPP.

### Methods

This protocol is part of the PROFit study (G0A1N24FWO/S69463). We will recruit 211 pregnant women without PLPP in the 1<sup>st</sup> trimester and follow them up in the 3<sup>rd</sup> trimester, 6 weeks and 9 months postpartum. PLPP will be assessed via self-report and clinical tests; task- and context-specific FoM by scoring the level of reluctance to perform self-selected activities; and (pain-related) psychological factors using validated

questionnaires. Descriptive statistics and group comparisons, correlations, and logistic regression will address the three objectives.

### **Results**

By 12 Nov. 2025, 27 participants (mean age=31.0, SD=3.6) were included. We hypothesize that pregnant woman with PLPP are more reluctant to perform activities involving their lower back and/or pelvic girdle, and that higher FoM will be associated with greater fear-avoidance beliefs, pain catastrophising, depression and anxiety. Lastly, we expect elevated FoM to predict the onset and persistence of PLPP.

### **Process evaluation**

Participant recruitment is the biggest challenge of this study.

### **Conclusion**

This study aims to understand the role of task- and context-specific FoM in the onset and persistence PLPP, supporting better prevention and treatment strategies.

### **References**

- [1] Wuytack F, Begley C, Daly D. Risk factors for pregnancy-related pelvic girdle pain: a scoping review. *BMC Pregnancy Childbirth*. 2020 Dec 1;20(1).
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- [3] de Baets L, Meulders A, van Damme S, Caneiro JP, Matheve T. Understanding Discrepancies in a Person's Fear of Movement and Avoidance Behavior: A Guide for Musculoskeletal Rehabilitation Clinicians Who Support People with Chronic Musculoskeletal Pain. Vol. 53, *Journal of Orthopaedic and Sports Physical Therapy*. Movement Science Media; 2023. p. 307–16.