



# Musculoskeletal Pain Among Community-Dwelling Older Adults during the COVID-19 Pandemic: A Longitudinal Survey

LISANDRA ALMEIDA<sup>1</sup>

1. School of Rehabilitation Science Graduate Program, Class of 2024, McMaster University, [almeil2@mcmaster.ca](mailto:almeil2@mcmaster.ca)

## ABSTRACT

**OBJECTIVE:** To describe the MSK pain prevalence and incidence and identify factors associated with MSK pain among older adults over a 1-year follow-up during the COVID-19 pandemic.

**METHODS:** This longitudinal telesurvey recruited community-dwelling older adults ( $\leq 65$  years) in Hamilton, Canada. MSK pain prevalence and incidence were calculated. Multilevel negative binomial and ordered logistic regression models were used to identify factors associated with the number of pain sites (0 to 7 pain sites), and most intense pain (no, mild, moderate, and severe pain).

**RESULTS:** We included 247 participants. Pain prevalence ranged between 64% at baseline to 73% at one year. The interaction of mental health by time as well as age and mobility were associated with the number of pain sites. Being older (IRR 0.96; 95% CI 0.94 to 0.98) and having better mobility (IRR 0.96; 0.95 to 0.96) were associated with lower number of pain sites. Having better mental health was associated with higher numbers of pain sites at 6- (IRR 1.58, 95% CI 1.05 to 2.37), 9- (IRR 1.55, 95% CI 1.02 to 2.34), and 12-months follow-ups (IRR 1.66, 95% CI 1.10 to 2.53). Sex, BMI and interactions of age by time, mobility by time, and mental health by time interaction were associated with the most intense pain. Being male (OR 0.87; 0.82 to 0.93) and having a greater BMI (OR 1.07; 1.00 to 1.14) were associated with lower and higher pain intensity, respectively. Being older (OR 1.09; 1.01 to 1.18) and having better mobility (OR 1.06; 1.01 to 1.11) were associated with higher pain intensity at 12 months.

**CONCLUSION:** Older adults were found to have high MSK pain prevalence, however, there was not a significant increase over time. Our results demonstrated that mobility, age, BMI, sex, and mental health are important factors associated with MSK pain in older adults.

**Keywords:** *Musculoskeletal pain, pain intensity, older adults, COVID-19 pandemic, mental health*

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