

NAPCRG 52nd Annual Meeting — Abstracts of Completed Research 2024.

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Title

A longitudinal analysis of depressive symptoms and pain intensity and interference: A latent class growth analysis

Priority 1 (Research Category)

Behavioral, psychosocial, and mental illness

Presenters

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Abstract

Context: Pain and depression have a bidirectional relationship. Long term opioid use is also associated with a risk for depression. Little is known about the distinct trajectories of depressive symptoms and pain among high-risk opioid users. Objective: To determine 12-month depressive symptoms and pain trajectories among a sample of new opioid users. Study Design and Analysis: Prospective cohort study using latent class growth analysis (LCGA) and multinomial logistic regression. Setting: Patients starting a new period of prescription opioid use lasting 30-90 days were recruited from Saint Louis University's academic medical practice and Henry Ford Health System to a study of opioid use and mental health. Population studied: Enrolled participants (n=761) were 18-70 years old, free of cancer, and had at least three-monthly assessments of depressive symptoms (PHQ-9) and pain interference/severity (PEG) after baseline. Intervention/Instrument: Age, gender, race; baseline measures of pain interference and severity, number of pain sites, substance use disorders, anhedonia, vital exhaustion (VE), PTSD, generalized anxiety disorder, depression, prescribed opioids difficulties scale (PODS), and daily opioid use. Outcome measures. Trajectory classes for the PHQ-9 and PEG over 12-months. Results: Average age was 53.5 and 70.8% of the sample was White. LCGA identified a 3-class solution for both the PHQ-9 (Severe-Increase vs. Moderate-Stable vs. Low-Decrease) and the PEG (High-Stable vs. High-Decrease vs. Low-Decrease). Modeling results using Low-Decreasing PHQ-9 as the common outcome referent showed that White race, number of pain sites, high PODS, VE and PTSD were associated with Moderate-Stable depressive symptoms (OR range: 1.19-2.19) while VE, anhedonia, pain interference and number of pain sites were associated with Severe-Increasing symptoms (OR range: 1.22-3.44). For PEG trajectory, using Low-Decrease as the common outcome referent, number of pain sites, pain severity and pain interference were associated with High-Stable and High-Decreasing trajectories (OR range: 1.14-1.80). Daily opioid use was unrelated to PEG and PHQ-9 trajectories. Conclusions: Patients with

non-cancer pain show distinct patterns of depressive and pain symptoms over time. Identifying factors that contribute to worsening depression during pain treatment could reveal when to intervene before patients develop depression. Intervening upon depression may improve pain outcomes.

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