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Comorbidities and Treatments in United States Youth with Chronic Musculoskeletal Pain

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Introduction: Chronic musculoskeletal (MSK) pain has been associated with chronic illnesses and high rates of pain medication use, often in referral centers, European populations, or studies focused on single drug classes. We aimed to characterize patterns of comorbidities and treatments associated with chronic MSK pain in a nationally-representative sample of US youth.

Methods: We used the National Ambulatory Medical Care Survey (2002-2015) and National Hospital Ambulatory Medical Care Survey (2002-2011), which contain cross-sectional data for US outpatient visits. The study included all visits for youth age 8-24, excluding those with malignancy or sickle cell disease. We compared comorbidities and drugs ordered in visits for chronic MSK pain with (1) visits for any reason besides MSK pain and (2) visits for acute MSK pain, using chi-square tests and logistic regression, adjusting for several covariates.

Results: Chronic non-psychiatric diseases were more common among visits for chronic MSK pain (32.0%) in comparison to both visits for acute MSK pain (17.9%) and visits for other reasons (18.8%). Nonsteroidal anti-inflammatories were less commonly ordered at visits for chronic MSK pain in comparison to acute MSK pain (adjusted odds ratio [aOR]: 0.63, 95% CI 0.50-0.80). Opioids, gabapentinoids, and alternative medicine were each ordered more commonly at visits for chronic MSK pain in comparison to visits for acute MSK pain and other visits.

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Conclusion: US youth with chronic MSK were more likely to have chronic non-psychiatric medical conditions compared to youth without pain. Additionally, opioids, gabapentinoids, and alternative medicine were ordered more often in chronic MSK visits, which warrants further study.