The Onset of Chronic Musculoskeletal Pain in High School Adolescents: Associated Factors and the Role of Symptoms of Central Sensitization

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FIGURE 1

Data collection set up at the schools.

Chronic musculoskeletal pain in adolescents is reaching a prevalence that is similar to that of adults. Furthermore, having chronic pain at an earlier age is a very important risk factor for reporting pain when adult. Existing studies exploring the factors associated with new onset pain in adolescents are of very low to moderate methodological quality and none have explored whether symptoms of central sensitization (symptoms associated with increased responsiveness of nociceptive neurons in the central nervous system to their normal or subthreshold input) could contribute to the onset of pain in adolescents.

This study aimed to investigate the association between soci-odemographic data, physical activity, depression, anxiety and stress, sleep, and symptoms of central sensitization at baseline, in asymptomatic adolescents, and the onset of pain at 6 months follow-up.

A total of 252 asymptomatic adolescents were assessed at baseline with an online questionnaire and reassessed at 6-months follow-up to ascertain the presence of pain. Of the 231 (91.7%) adolescents who completed the questionnaire at the follow-up, 127 (55.0%) remained asymptomatic and 88 (38.1%) reported a new onset of pain. Multivariable analysis showed that being female (OR = 2.34, 95% CI = 1.28 to 4.27) and reporting more self-reported symptoms of central sensitization (OR = 1.04, 95% CI = 1.01 to 1.07) were associated with the onset of chronic pain at follow-up. Considering the increasing prevalence of chronic musculoskeletal pain in adolescents, understanding the factors that may be associated with its new-onset may help to design more effective intervention strategies and, thus, minimize its maintenance and negative impact.