

Prevalence and Risk Factors for Cervical Pain in Medical Students

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INTRODUCTION: Neck pain is a leading contributor to disability worldwide and is especially prevalent in populations with high psychological and physical strain. Medical students experience unique ergonomic and stress-related exposures, yet studies exploring cervical pain in this group remain sparse. This study aimed to evaluate the prevalence and contributing risk factors of cervical pain in medical students at a large osteopathic medical school.

METHODS: A cross-sectional, anonymous survey based on the Nordic Musculoskeletal Questionnaire was distributed via email to students at Lake Erie College of Osteopathic Medicine (LECOM) from January to April 2023. The survey included 30 questions on demographics, neck pain, stress, sleep, exercise, and academic habits. Inclusion required current enrollment; exclusion criteria included prior spinal surgery, trauma, or chronic musculoskeletal disease. Chi-squared testing and Cramer's V were used to analyze associations between neck pain severity and independent variables. Significance was set at $p < 0.05$. IRB exemption was granted.

RESULTS: Of 159 respondents, 145 met inclusion criteria. The point prevalence of neck pain was 86%, with 75.9% reporting new pain since starting school. Moderate or severe pain was reported by 49% of respondents. Statistically significant associations were observed between neck pain severity and chronicity, perceived stress, decreased sleep, and female sex. No associations were found with BMI, GPA, study hours, or learning pathway.

DISCUSSION: This study demonstrates a high burden of cervical pain in medical students. Findings reinforce the contribution of modifiable psychosocial and lifestyle factors to musculoskeletal symptoms. Limitations include the single-institution scope, recall bias, and cross-sectional design precluding causality. Further prospective, interventional studies are warranted.

SIGNIFICANCE/CLINICAL RELEVANCE: Medical students represent a vulnerable population for musculoskeletal strain. Early identification of risk factors may enable targeted interventions to reduce long-term occupational disability.