Chronic Pain and its Effects in College Students

Madelyn Montgomery, Pharm.D. Candidate

J. Mark Ruscin, Pharm.D. and J. Chris Lynch, Pharm.D.

<u>Abstract</u>

Introduction: Most studies in the field of chronic pain are in the middle age or geriatric population. Very few studies have been conducted in chronic pain in young adults, particularly in the age range of the typical college student (18-24). The CDC's NHANES surveys have collected data as to the prevalence of chronic pain in young adults; however, more detailed studies are rarely designed to gather information among younger persons with chronic pain. Most studies that do target college age students with chronic pain describe athletes and the characteristics of sports-related injuries. This study was conducted to collect information on college age students with chronic pain that is not limited specifically to sports-related injuries. The specific purpose of this study is to evaluate and draw conclusions about the impact of chronic pain on college student's ability to meet academic responsibilities and maintain an active social life.

Methods: Patients presenting to SIUE health services were offered an opportunity to complete an anonymous survey via Qualtrics to gather data. The following demographic data was collected: gender, race, and age, and the nature of their chronic pain diagnosis. Additionally, the following subjective data was collected, all measured by severity on a scale of 1-10: the worst pain and average pain experienced in the past month; how much they feel chronic pain impacts academic performance and impacts social life; and how much they feel taking pain medication positively impacts academics, negatively impacts academics, positively impacts social life, and negatively impacts social life.

Results: We received 135 survey responses, with 41 reporting a chronic pain condition. The most common etiologies were chronic back pain (41%) followed by migraine headaches (27%). Most participants were Caucasian (90%) and female (76%), and 88% were within the ages of 18-26. Mean baseline pain scores were 4.6±1.80, with 32% of the participants having a baseline rating of 6 or greater. Respondents' most severe pain in the previous 30 days was reported at a mean of 7.3±1.6, with 88% rating their most severe pain at 6 or greater. To evaluate impact on academics and social life, respondents were divided into 2 groups: less severe pain (ratings of 1-5), or more severe pain (ratings of 6-10). In the less severe pain group, participants' mean rated pain impact on academic performance was 4.1±2.3 and on social activities was 4.0±2.0. In the more severe pain group, mean rated pain impact on academics was 6.5±2.9 and on social activities was 6.2±2.5. Participants with more severe pain rated the negative impact of pain medicine on academics to be 3.0+2.9, compared with 2.2+2.5 in the less severe pain group. Similarly, the negative impact of pain medicine on social activities was rated at a mean of 2.6+2.1 in the more severe pain group, and 1.7+2.2 in the less severe pain group. Participant ratings for the positive impacts of medication on academics were rated at a mean of 3.8±3.0 in the more severe pain group, compared to 3.6±3.0 in the less severe pain group. Similarly, participants rated medication as positively impacting social activities at a mean of 4.4±2.7 in the more severe pain group and 3.8±2.5 in the less severe pain group.

Conclusion: Our study data demonstrated that having chronic pain can be a barrier to a person's ability to participate in academics and have a social life. Additionally, it indicated that the impact of having chronic pain is often of similar magnitude in both categories. The higher the pain score ratings a person indicates, the more likely he/she is to perceive that their capabilities are impacted by pain. On the other hand, patients will also report a greater improvement in severity scores and functionality when they take pain medicine. Overall, our results show that the treatments for chronic pain can have a large impact on one's abilities, bearing both positive and negative effects. However, comparing the ratings of

the improvement that pain medication provides patients, to the hindrance that result, indicates that the pros of taking pain medication typically outweigh the cons.