



University of Utah

UNDERGRADUATE RESEARCH JOURNAL

POST-TRAUMATIC STRESS DISORDER PREDICTS CRAVING AMONG OPIOID-TREATED CHRONIC PAIN PATIENTS

**Hannah Louise Landicho (Dr. Eric Garland, PhD, LCSW)
College of Social Work**

Since 2000, the United States has experienced an upsurge of opioid misuse resulting in an increase in addiction cases and drug-related deaths (Violence & Injury Prevention Program, 2014). Chronic pain is one of the most common reasons adults seek medical care and are prescribed painkillers (Dahlhamer et al., 2018). However, recent estimates show that one-fifth to one-quarter of chronic pain patients receiving opioid therapy meet diagnostic DSM-5 criteria of opioid use disorder (Boscarino, Hoffman, & Han, 2015; Degenhardt et al., 2015). Thus, additional research on potential risk factors is needed that explains why some patients can take opioids as prescribed, whereas others will misuse them. This study evaluates emotional distress, such as post-traumatic stress disorder (PTSD), as a potential risk factor for opioid craving.

Craving is a significant psychological construct in chronic pain patients treated with opioids (Wasan et al., 2012). PTSD may predict heightened opioid craving. The primary goal of this research is to determine the stronger predictor of opioid craving: emotional pain (PTSD) or physical pain (pain severity). We hypothesize that opioid-treated chronic pain patients with higher levels of PTSD symptoms would have greater opioid craving than patients with lower levels of PTSD symptoms, and that PTSD would predict craving more strongly than pain severity.

A sample of participants (N=304) with chronic pain on long-term opioid therapy, who displayed a range of PTSD symptoms, were recruited to complete self-report assessments of opioid craving, PTSD, and pain severity. Regression analyses assessed PTSD and pain severity as predictors for opioid craving. PTSD symptom severity was significantly positively associated with opioid craving, even after controlling for pain severity as a predictor (which was not associated with craving). Emotional pain (as indicated by PTSD) seems to be a stronger predictor of opioid craving than physical pain among opioid-treated chronic pain patients.

Thus, PTSD is a significant risk factor for opioid craving among chronic pain patients receiving prescription opioid analgesia. It is plausible that those with PTSD use opioids to suppress emotional trauma (Garland, Brown, & Howard, 2016). Due to these findings, prior to prescribing, measures can be taken to screen individuals for trauma history to assess potential risk for opioid misuse. Further research is needed to evaluate the relationship of other negative affective states, and emotional pain, with opioid craving and chronic pain.

References

- Boscarino, J. A., Hoffman, S. N., & Han, J. J. (2015). Opioid-use disorder among patients on long-term opioid therapy: Impact of final DSM-5 diagnostic criteria on prevalence and correlates. *Substance Abuse and Rehabilitation*, 6, 83–91.
- Dahlhamer, J., Lucas, J., Zelaya, C., Nahin, R., Mackey, S., Debar, L., . . . Helmick, C. (2018). Prevalence of chronic pain and high-impact chronic pain among adults — United States, 2016. *MMWR. Morbidity and Mortality Weekly Report*, 67(36), 1001-1006. doi:10.15585/mmwr.mm6736a2
- Degenhardt, L., Bruno, R., Lintzeris, N., Hall, W., Nielsen, S., Larance, B., . . . Campbell, G. (2015). Agreement between definitions of pharmaceutical opioid use disorders and dependence in people taking opioid for chronic non-cancer pain (POINT): A cohort study. *Lancet Psychiatry*, 2, 314–322.
- Garland, E. L., Brown, S. M., & Howard, M. O. (2016). Thought suppression as a mediator of the association between depressed mood and prescription opioid craving among chronic pain patients. *Journal of Behavioral Medicine*, 39, 128–138.
- Wasan, A. D., Ross, E. L., Michna, E., Chibnik, L., Greenfield, S. F., Weiss, R. D., & Jamison, R. N. (2012). Craving of prescription opioids in patients with chronic pain: A longitudinal outcomes trial. *Journal of Pain*, 13, 146–154.
- Violence & Injury Prevention Program. (2014). Opioid Overdoses. Retrieved from <https://health.utah.gov/vipp/topics/prescription-drug-overdoses/>