

Binghamton University

The Open Repository @ Binghamton (The ORB)

Research Days Posters Spring 2020

Division of Research

2020

Pain-related Disability is Associated with Greater Consequences of Cannabis Use

Ashley Shayya

Binghamton University--SUNY

Michael Shaw

Binghamton University--SUNY

Brendan Walsh

Binghamton University--SUNY

Callon Williams

Binghamton University--SUNY

Follow this and additional works at: https://orb.binghamton.edu/research_days_posters_spring2020

Recommended Citation

Shayya, Ashley; Shaw, Michael; Walsh, Brendan; and Williams, Callon, "Pain-related Disability is Associated with Greater Consequences of Cannabis Use" (2020). *Research Days Posters Spring 2020*. 83.

https://orb.binghamton.edu/research_days_posters_spring2020/83

This Book is brought to you for free and open access by the Division of Research at The Open Repository @ Binghamton (The ORB). It has been accepted for inclusion in Research Days Posters Spring 2020 by an authorized administrator of The Open Repository @ Binghamton (The ORB). For more information, please contact ORB@binghamton.edu.

Ashley D. Shayya, Michael T. Shaw, Callon M. Williams, Brendan E. Walsh & Emily L. Zale

BACKGROUND AND PURPOSE

- Chronic pain and cannabis use are highly prevalent in college student populations.^{1, 2}
- A growing literature indicates maladaptive responses to pain are associated with problematic substance use, including cannabis and alcohol use.^{3, 4, 5}
- No studies have examined the association between pain-related disability and cannabis use among college students.

METHODS AND DATA

Participants and Procedure

- A sample of 167 Binghamton University undergraduates (18-24 years old) who reported any lifetime cannabis use completed psychological measures regarding cannabis use and pain for course credit.

Measures

- Pain-related disability and intensity:** Assessed using the pain-related disability and intensity subscales of the Graded Chronic Pain Scale (GCPS)
 - Pain-related disability is the degree to which pain interferes with an individual's social, recreational and vocational activities (in the last three-months).
 - Pain intensity is the level of pain an individual experiences (in the last three-months).
 - A sum of the GCPS responses represented the degree of pain-related disability and intensity.
- Cannabis-related consequences:** Assessed using the Marijuana Adolescent Problem Inventory (MAPI)
 - Cannabis-related consequences are the negative events associated with cannabis use (within the past year).
 - Scores ranged from 0 to 92; higher scores indicated more consequences.
 - A sum of the responses represented the amount of cannabis-related consequences.

Data-Analytic Strategy

- Linear regressions with pain-related disability and intensity predicting cannabis-related consequences were tested.
- Gender differences were tested using an interaction term in the linear regressions.

RESULTS

Sample Descriptive Statistics

- $M_{age} = 19.28$ (SD = 0.96); 76.0% female; 70.7% White
- The sample, on average, endorsed using cannabis at least once a month ($M = 1.96$; SD = 1.20).
- On average, the sample reported low levels of pain-related disability ($M = 6.38$; SD = 6.74) and pain intensity ($M = 8.68$; SD = 4.80).
- The average cannabis related consequences individuals in this sample faced were 5.93 (SD = 9.15).

Linear Regressions

- Frequency of use was not found to be associated with pain-related disability ($p = 0.54$) or pain intensity ($p = 0.84$).
- In this sample, gender does not moderate the relation between pain-related disability and cannabis-related consequences ($p = 0.25$) or pain intensity and cannabis-related consequences ($p = 0.46$).

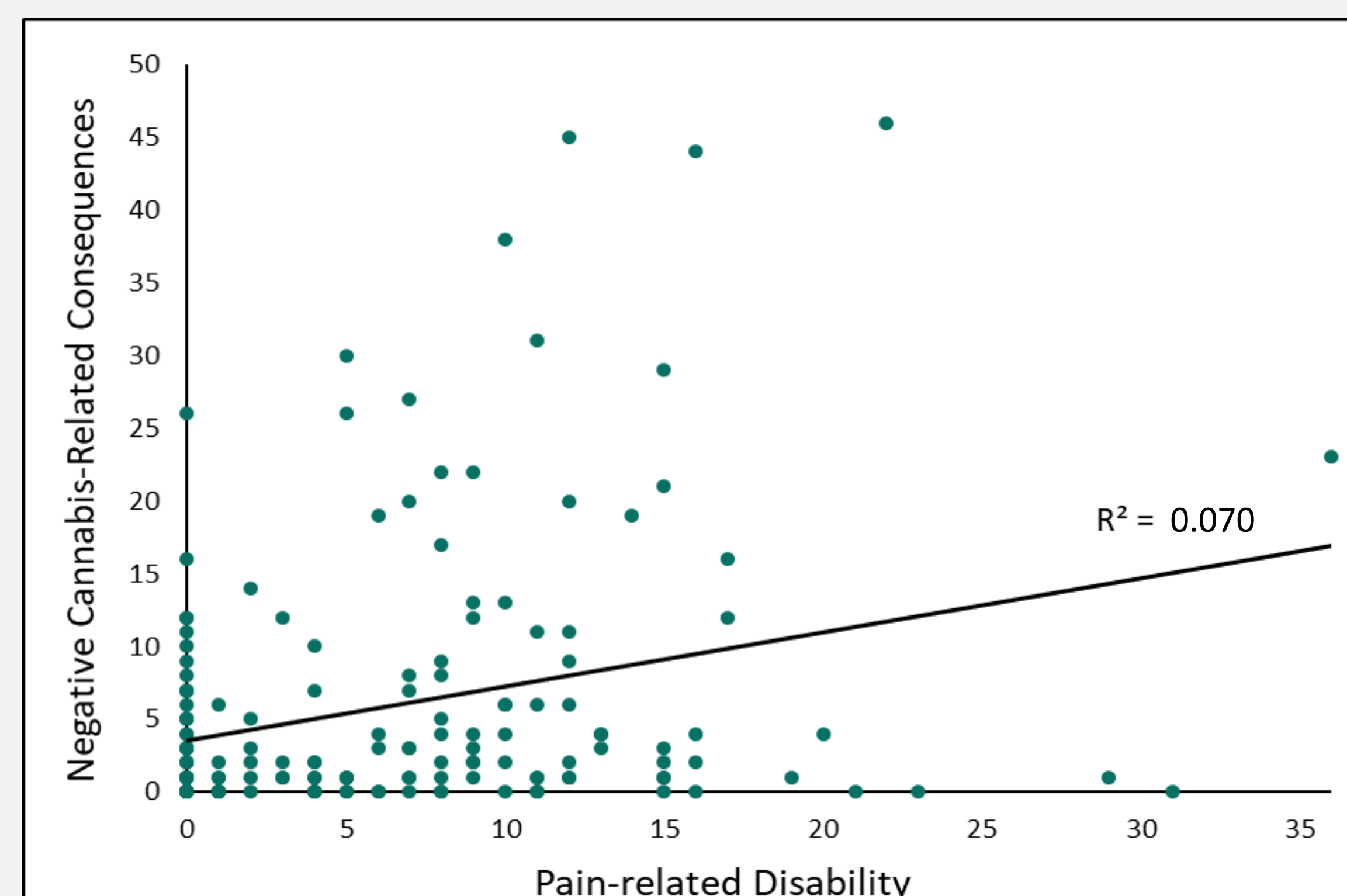


Figure 1. The association between pain-related disability and cannabis-related consequences in college students ($\beta = 0.264$; $p = 0.001$).

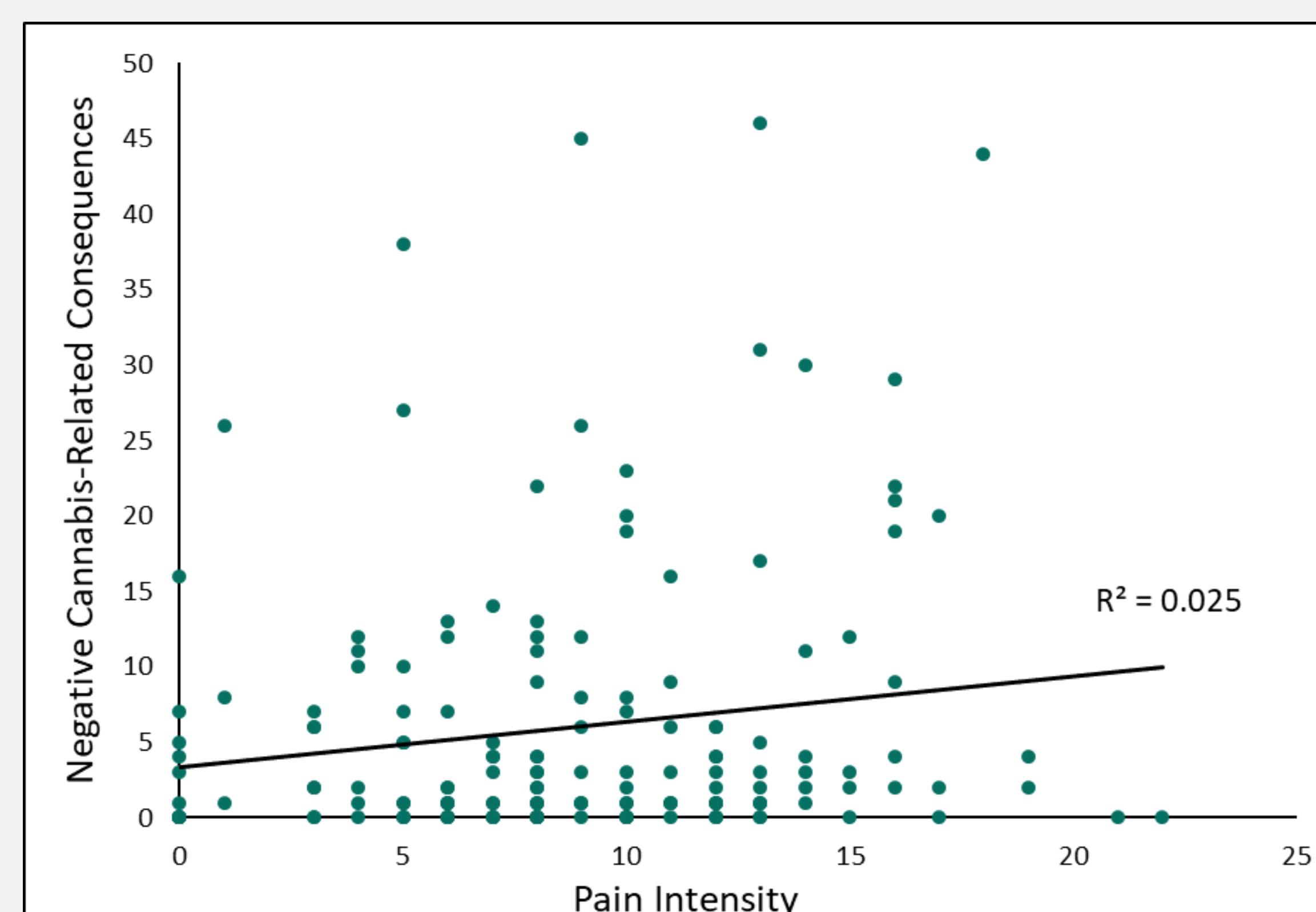


Figure 2. The association between pain-related intensity and cannabis-related consequences in college students ($\beta = 0.158$; $p = 0.041$).

CONCLUSIONS

- In this college student sample, pain intensity and disability were both positively associated with cannabis-related consequences, indicating that cannabis users experiencing greater levels of pain also face more cannabis-related consequences.
- These results are in concordance with findings derived from adult populations.
- In this sample, there were no gender differences in the correlations suggesting that these positive associations are present in both females and males.
- Further research is needed to determine:
 - The efficacy of pain-related interventions on cannabis-related consequences (to determine the clinical implications of these findings)
 - Temporal precedence of the associations in order to assess causality
 - Whether a dose-response association exists between cannabis and pain related outcomes

MAIN FINDING

In this college student sample, pain intensity and disability were predictive of cannabis-related consequences. Frequency of cannabis use was not found to be associated with pain intensity or disability. This finding supports claims that pain is important to consider when assessing substance use among college students.

REFERENCES

- Thomas, M., Roy, R., Cook, A., & Marykuca, S. (1992). Chronic pain in college students. *Canadian Family Physician*, 38, 2597-2601.
- Blavos, A. A., Glassman, T. J., Sheu, J., Thompson, A., DeNardo, F., & Diehr, A. (2017). Marijuana and college students: A critical review of the literature. *American Journal of Health Education*, 48(3), 167-184. doi: 10.1080/19325037.2017.1292878.
- Hasin, D. S., Shmulewitz, D., Cerdá, M., Keyes, K. M., Olfson, M., Sarvet, A. L., & Wall, M. M. (2020). U.S. adults with pain, a group increasingly vulnerable to nonmedical cannabis use and cannabis use disorder: 2001-2002 and 2012-2013. *The American Journal of Psychiatry*. doi: 10.1176/appi.ajp.2019.19030284.
- Zvolensky, M. J., Coughle, J. R., Bonn-Miller, M. O., Norberg, M. M., Johnson, K., Kosiba, J., & Asmundson, G. J. G. (2001). *The American Journal on Addictions*, 20, 538-542. doi: 10.1111/j.1521-0391.2011.00176.x.
- Zale, E. L., LaRowe, L. R., Boissoneault, J., Maisto, S. A., & Ditre, J. W. (2019). Gender differences in associations between pain-related anxiety and alcohol use among adults with chronic pain. *The American Journal of Drug and Alcohol Abuse*, 45(5), 479-487. doi: 10.1080/00952990.2019.1578968.