Impulsivity in Sexual Trauma Survivors and their Use of Alcohol and Substances

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Impulsivity of Sexual Trauma Survivors and their use of alcohol and substances

Kayla McLean, Jasmin Vassileva, Ph. D.

Abstract

The current study investigates the associations of neurocognitive ‘choice’ impulsivity (delay discounting) and personality ‘trait’ impulsivity (UPPS) with alcohol and substance use among college students reporting history of sexual trauma. Spit For Science data was used as the sample, specifically looking at the 2017 cohort (N=2476). Spit for Science is an university-wide project conducted by Virginia Commonwealth University, that collects data primarily through survey questions with an optional DNA sample from participants. Participants were asked about both choice and trait impulsivity the spring of their freshman year. A bivariate correlation was used to compare different substances and alcohol use to different facets of the UPPS trait impulsivity. The results revealed that only cannabis and prescription stimulants were correlated significantly with discounting delayed rewards overall (In overall k) and particular rewards of small magnitude (In small k).

Results/Discussion

The results also concluded that the positive correlations within the sub-factors of the UPPS show relationships between one’s emotions and the specific substance used. This could possibly indicate substance use as a means of coping when one has experienced sexual trauma. Future studies with this sample may examine differences between students who experienced sexual trauma and those who have not. Studies could also measure the effects of different types of traumatic events on impulsivity and substance use and how certain stressors may influence choice and trait impulsivity as well as drug of choice.

Methodology

The overall Spit 4 Science population of cohort 5 was filtered for any female-identifying student who have experienced any form of sexual trauma prior to and since attending college, resulting in a population of (N=688). Each substance was then coded to identify those experiencing some form of sexual trauma. Impulsivity is one potential mechanism that may mediate the link between history of trauma and substance misuse. The medium magnitude showed positive correlations with prescription opioids and prescription stimulants. Alcohol and other types of substances were not statistically related to discounting of delayed rewards. Different facets of UPPS trait impulsivity (lack of perseverance, lack of premeditation, negative urgency, positive urgency, and sensation seeking), showed positive relationships with the following substances; cannabis, opioids, stimulants, prescription sedatives and prescription anxiolytics.

Introduction

Sexual trauma is often a common event in the average life of the female-identifying college student. With the “national rate of over 20% of female-identifying persons experiencing some form of sexual trauma before the end of their first year”, alcohol and substance use are some of the most common coping mechanisms to deal with traumatic events (Conley et al., 2017). The wide availability of different substances and alcohol on college campuses may further increase the possibility of addiction and reoccurrence of sexual victimization. Impulsivity is one potential mechanism that may mediate the link between history of trauma and substance misuse. We examine the associations of two types of impulsivity: personality trait impulsivity (UPPS) and neurocognitive choice impulsivity (delay discounting, [k]) with self-report of alcohol and substance use (i.e., cannabis, cocaine, opioids, sedatives, stimulants, and prescription stimulants, opioids, sedatives, and anxiolytics).

Conclusions

The current study reveals significant associations of choice impulsivity to lifetime substance use among students with history of sexual trauma. The results indicated that cannabis and prescription stimulants have positive correlations with discounting of delayed rewards, particularly rewards of small magnitude and the overall magnitude. The results also concluded that the positive correlations within the sub-factors of the UPPS show relationships between one’s emotions and the specific substance used. This could possibly indicate substance use as a means of coping when one has experienced sexual trauma. Future studies with this sample may examine differences between students who experienced sexual trauma and those who have not. Studies could also measure the effects of different types of traumatic events on impulsivity and substance use and how certain stressors may influence choice and trait impulsivity as well as drug of choice.

Conclusion

The current study reveals significant associations of choice impulsivity to lifetime substance use among students with history of sexual trauma. The results indicated that cannabis and prescription stimulants have positive correlations with discounting of delayed rewards, particularly rewards of small magnitude and the overall magnitude. The results also concluded that the positive correlations within the sub-factors of the UPPS show relationships between one’s emotions and the specific substance used. This could possibly indicate substance use as a means of coping when one has experienced sexual trauma. Future studies with this sample may examine differences between students who experienced sexual trauma and those who have not. Studies could also measure the effects of different types of traumatic events on impulsivity and substance use and how certain stressors may influence choice and trait impulsivity as well as drug of choice.

Works Cited


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