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Perceptions of Substance Abuse, Attachment Style, and Personality

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Abstract

There is substantial, empirical research on the bidirectional relationship between personal substance abuse and one's attachment style and personality traits. For example, insecure attachment and impulsivity correspond with greater substance abuse. However, it is not known whether attachment style and personality traits are related to people's attitudes towards *others'* substance abuse. In a sample of 166 participants, we examined whether attachment and personality showed a similar pattern of results with attitudes towards other people abusing substances as they do with personal substance abuse. Results mostly implicated the same attachment and personality variables, and exploratory analyses suggest that impulsivity is a particularly important predictor of attitudes toward others' substance abuse.

Keywords: substance abuse, coping mechanism, attachment, personality, preliminary study

Perceptions of Substance Abuse, Attachment Style, and Personality

Substance addiction is a clinical, psychiatric disorder which is characterized by pathological and compulsive drug-seeking and drug-use behaviors that preoccupy the addict, leading to significant functional impairment (Alvarez-Monjaras et al., 2019). Previous literature characterizes substance abuse as seeking out and using drugs with impaired emotional and behavioral control (Alvarez-Monjaras, Mayes, Potenza, & Rutherford, 2019; Khan & Shah, 2014; Stautz, Dinc & Cooper, 2017). Psychiatric symptoms include cravings for, withdrawal from, and tolerance to one's drug(s) of choice that leads to significant disruptive patterns, which continue despite negative consequences (Alvarez-Monjaras et al., 2019). There is abundant empirical research on how substance abuse may be predicted by interpersonal relationship quality and individual difference measures. (Alvarez-Monjaras et al., 2019; Both & Best, 2017; Castellani, Perinelli, Gerbino & Vittorio Caprara, 2016; Creswell, Wright, Flory, Skrzynski & Manuck, 2019; Estévez, Jáuregui, Sánchez-Marcos, López-González, & Griffiths, 2017; Fairbairn, Briley, Kang, Fraley, Hankin, & Ariss, 2018; Fletcher, Nutton, & Brend, 2014; Renaud, Barker, Hendricks, & Bornstein, 2019 & Zilberman Yadid, Efrati, Neumark, & Rassovsky, 2018). Although much is known about the connection between an individual's own substance abuse and measures of relationship attachment and personality, little is known about the extent to which attachment and personality predict general attitudes toward other peoples' use of substances as a coping mechanism. This paper will review previous literature on attachment and personality as predictors of substance abuse, with the idea that these variables may have a similar relationship when substance abuse is replaced as the independent variable by attitudes toward substance abuse. Attitudes towards individuals using substance abuse as a

coping mechanism are important to research because social attitudes may cause interpersonal distress for individuals who abuse illicit substances, worsening disruptive patterns.

Attachment and Substance Abuse

Close social bonds have been repeatedly linked to the development of substance abuse issues. Individual patterns in relationships can be understood using attachment theory. Attachment theory is a useful model for understanding contributing factors to substance abuse pathology because it specifically addresses the importance of interpersonal bonds throughout development, while providing an overarching framework for considering individual affective, cognitive, and behavioral processes. (Alvarez-Monjaras et al., 2019; Both & Best, 2017; Castellani et al., 2016; Estévez et al., 2017; Fairbairn et al., 2018; Fletcher et al., 2014 & Marrero-Quevedo, Blanco-Hernández, & Hernández-Cabrera, 2019). On one hand, secure attachment is developed through consistent attunement of caregiver to infant needs, which results in strong emotional regulation skills, a dynamic communication style, and a trust that others will be reliable (Alvarez-Monjaras et al., 2019; Both & Best, 2017; Castellani et al., 2016; Estévez et al., 2017; Fairbairn et al., 2018; Fletcher et al., 2014; Haddad, 2019; Marrero-Quevedo et al., 2019; Renaud et al., 2019 & Weisskirch, 2018).

On the other hand, insecure (i.e. anxious and avoidant) attachment styles lead to issues with the co-regulation skills acquired through secure attachment (Weisskirch, 2018). A caregiver's neglect of infant needs may cause an avoidant attachment style, implying an individual will be deterred by the prospect of vulnerability or intimate relationships due to the fear of broken trust (Alvarez-Monjaras et al., 2019; Estévez et al., 2017; Fairbairn et al., 2018; Fletcher et al., 2014, Haddad, 2019 & Weisskirch, 2018). Therefore, in an attempt to protect themselves, avoidant individuals engage more frequently in emotionally superficial relationships

(Alvarez-Monjaras et al., 2019; Estévez et al., 2017; Fairbairn et al., 2018; Fletcher et al., 2014, Haddad, 2019 & Weisskirch, 2018). Moreover, inconsistent caregiver responses to infant needs may develop into an anxious attachment style, resulting in spending excessive energy to elicit and maintain affection from partners due to fear of rejection or abandonment (Alvarez-Monjaras et al., 2019; Estévez et al., 2017; Fairbairn et al., 2018; Fletcher et al., 2014, Haddad, 2019 & Weisskirch, 2018).

Empirical research suggests a strong positive correlation between insecure attachment style and substance abuse (Alvarez-Monjaras et al., 2019; Both & Best, 2017; Castellani et al., 2016; Estévez et al., 2017; Fairbairn et al., 2018 & Fletcher et al., 2014). It is theorized that when emotional regulation skills are not properly developed through a secure attachment in childhood, those individuals may be inclined to self-regulate through substance abuse, rather than assume the perceived risk of forming interpersonal relationships due to their negative perception of human attachment (e.g. experiences of violence, unpredictability, neglect) (Alvarez-Monjaras et al., 2019; Estévez et al., 2017; Fairbairn et al., 2018, Fletcher et al., 2014 & Haddad, 2019). The fundamental influence attachment style has on interpersonal bonds and substance abuse suggests it may also influence social attitudes towards substance abuse as a coping mechanism.

Personality and Substance Abuse

Personality traits are quite stable, and they encompass the individual differences in how people think, feel, and behave. Research suggests that personality traits determine individual behavioral, emotional, and cognitive patterns (Both & Best, 2017; Marrero-Quevedo et al., 2019). The Big Five Factor Model of personality, which includes agreeableness, conscientiousness, and neuroticism (as well as openness and extraversion, and 6 facets for each

factor) is one of the most empirically supported models of personality (Both & Best, 2017; Marrero-Quevedo et al., 2019 & Zilberman et al., 2018).

Neuroticism

Neuroticism is characterized as a tendency towards negative thoughts and emotions, as well as a difficulty with emotional regulation (Khan & Shah, 2014 & Zilberman et al., 2018). Difficulty regulating emotions is characterized by vulnerability to impulses based in negative emotions, and challenges engaging in goal-directed behaviors (Weisskirch, 2018). Researchers have found that higher neuroticism is positively correlated with substance abuse (Khan & Shah, 2014 & Zilberman et al., 2018). This is likely because individuals with higher neuroticism have difficulty with both emotional regulation and interpersonal relationships (neuroticism is linked with insecure-anxious attachment), which leads to self-medication (Marrero-Quevedo et al., 2019, & Zilberman et al., 2018). Individuals with higher neuroticism may be more socially accepting towards substance abuse as a coping mechanism because they empathize with the desire to self-medicate.

Conscientiousness

Conscientiousness is a Big Five personality trait characterized as being careful, efficient and organized. Researchers found that low conscientiousness is positively correlated with substance abuse (Zilberman et al., 2018). Moreover, literature suggests conscientiousness is a trait that is also associated with self-discipline and self-control (Mao, Weigang, Zhu, Yanga, Donga, & Zhou, 2018 & Zilberman et al., 2018). Low self-control and low self-discipline (i.e. difficulty resisting impulses and compulsions) are cognitively and behaviorally consistent with impulsivity (Mao, et al., 2018; Stautz, et al., 2017 & Zilberman et al., 2018). Impulsivity is defined as a lack of planning that is associated with short-term gains despite long-term losses

(Berg, Latzman, Bliwise, & Lilienfeld, 2015; Creswell et al., 2019; Mao et al., 2018; Stautz et al., 2017 & Zilberman et al., 2018). Impulsivity is prominent in most externalizing pathologies, and is strongly correlated with substance abuse (Berg et al., 2015; Creswell et al., 2019 & Zilberman et al., 2018).

Optimism

Optimism is defined as a cognitive, emotional, and motivating tendency to have a positive outlook towards oneself, the future, and the world (Marrero-Quevedo et al., 2019 & Renaud, 2019). Optimism is linked to favorable psychological and physiological pathways, such as less cortisol release during stressful situations in individuals with higher optimism than lower optimism (Yu, Putnick, Hendricks, & Bornstein, 2019). Optimism may be linked with less emotional dysregulation because optimism is a factor for predicting personal well-being and secure attachment (Creswell et al., 2019). Researchers have found there is a negative correlation between optimism and neuroticism (neuroticism aforementioned as being positively correlated with substance abuse), which suggests higher emotional regulation in optimistic individuals, and therefore less use for self-medication (Yu et al., 2019).

The Present Study

There is an abundance of research on the relationship(s) between attachment style, personality, and substance abuse. However, there is little to no research on whether the same variables will predict individual attitudes towards substance abuse. The present study sought to fill this gap in research by examining the relationship between attachment style, personality traits (neuroticism, conscientiousness, and optimism) and attitudes towards substance abuse as a coping mechanism. Attachment and personality may be linked to attitudes towards substance

abuse because both provide a functioning framework that seems to mediate between external events and an individual's interpretation on them.

We have two hypotheses for our present study. First, insecure attachment will correspond with more accepting attitudes towards substance abuse as a coping mechanism. Second, higher neuroticism, higher impulsivity, lower conscientiousness, and lower optimism will correspond with more accepting attitudes towards substance abuse as a coping mechanism.

Method

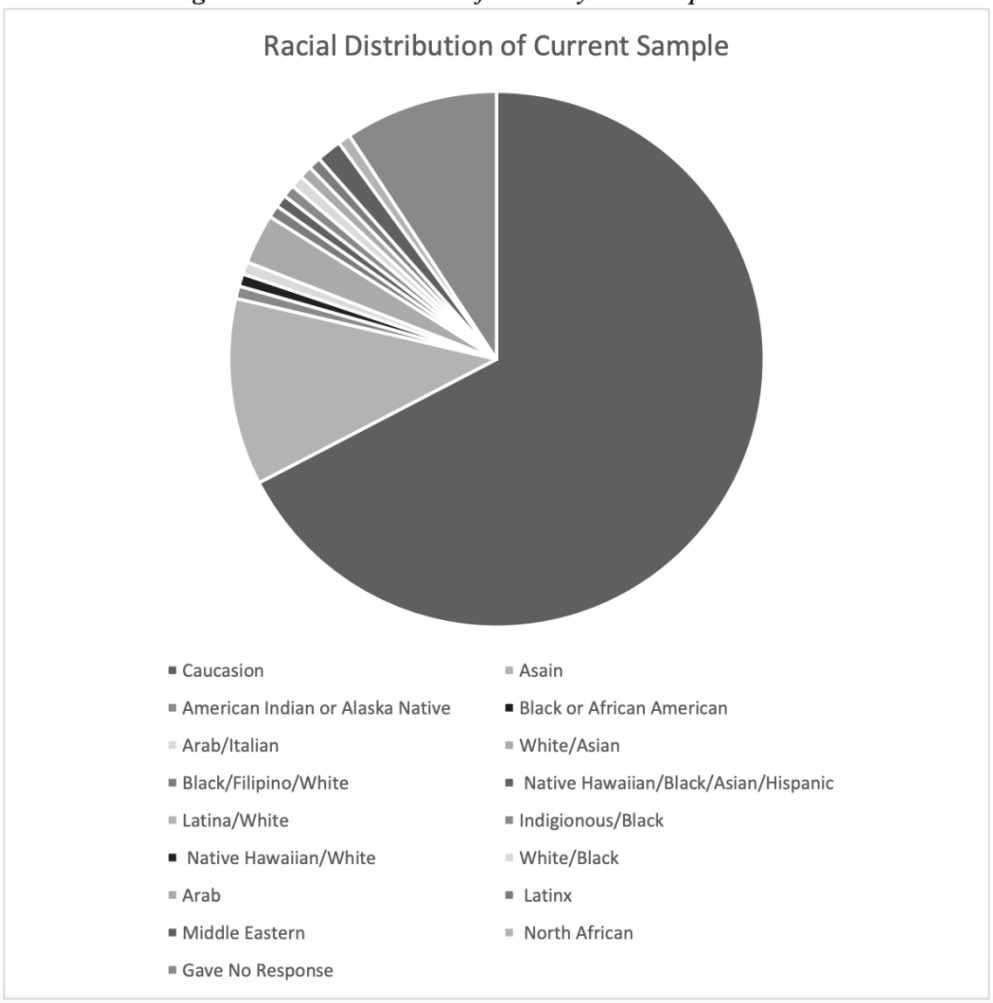
Participants

Participants in this study were primarily Seattle University students from the United States. The survey was administered via Qualtrics, which was posted to the Seattle University Psychology Department SONA page and Survey Monkey (if participants were not students at Seattle University). Links to the survey were also posted on the PI's Facebook, Snapchat, and Instagram accounts. Approximately 200 people were exposed to the study via these methods. Out of this convenience sample, 166 emerging adults participated. Of those responses, 33 were not used due to incomplete surveys. All surveys included a consent form that included participant eligibility. The consent forms stated that participants must be within 18 to 29 years old. Each survey included a consent form and a cover letter inviting respondents to participate in the study. The consent forms stated that participants will get no compensation upon the completion of the study unless they are a psychology student at Seattle University completing the study through SONA (in which they received credit for their psychology courses). The consent forms also stated that all information will remain confidential. All procedures were approved by the Institutional Review Board of Seattle University.

In this sample, 28 of the participants identified as a men, 95 participants identified as a women, 1 participant identified as a trans woman, 2 participants identified as trans men, 5 participants identified as non-binary/genderqueer/gender fluid, 1 participant identified as questioning/unsure, and 1 identified as agender. The sample consisted of 66.9% Caucasian, 11.2% Asian, .75% American Indian or Alaska Native, .75% Black or African American, .75% Arab/Italian, 3% White/Asian, .75% Black/Filipino/White, .75% Native Hawaiian/Black/Asian/Hispanic, .75% Latina/White, .75% Indigenous/Black, .75% Native Hawaiian/White, .75% White/Black, .75% Arab, .75% Latinx, 1.5% Middle Eastern, .75% North African, 5.2% no response individuals (See Figure 1). The median age was 21. 50% were current students at Seattle University, and 68.7% of participants had completed some college at the time of survey completion.

Figure 1

Pie Chart Showing the Racial Distribution of the Study's Participants



Materials

Age

Participants responded to age in the survey using a drop-down menu answering the question "What is your age in years?" Age was defined as a participant's age measured in whole numbered years from ages 18-29 at the time of survey completion.

Gender

Participants responded to the following: “What term below that best describes your gender?” in the survey. Participants were able to choose woman, man, trans woman, trans man, non-binary/genderqueer/gender fluid, agender, questions or unsure, prefer to self-describe, and prefer not to say. Gender was defined as the gender identified as at the time of survey completion.

Hispanic or Latino/Latina/Latinx origin

Participants responded to the survey question “Are you of Hispanic or Latino/Latina/Latinx origin?” Participants were able to choose yes, no, do not know, and prefer not to say. Hispanic or Latino/Latina/Latinx origin was defined as the origin of the participants lineage being from a Latin America or a Spanish speaking country.

Race

Participants responded to the survey question “What is your race?” Participants were able to choose American Indian or Alaska Native, Asian, Black or African American, Native Hawaiian or Other/Pacific Islander, White, don’t know, and prefer not to say. Participants were also able to choose more than one race and prefer to self-describe. Race was defined as a participant’s self-identification with one or more social groups.

Seattle University Student Status

Participants responded to the survey question “Are you currently an undergraduate student at Seattle University?” by marking yes, no, or prefer not to say. Seattle University status was defined as being an active student who is at least part-time and attending Seattle University.

Education Status

Education status was determined through a list provided on the survey of the following options: 8th grade or less, some high school, high school graduate or GED, vocational or technical school, some college, college graduate, graduate school or professional school, prefer not to say. Participants responded to the following: "How many years of education have you completed?" by marking the option that best matches their education status at the time of survey completion. Education status was defined as the highest level of education completed by the participant at the time of survey completion.

Adult Attachment Style

Adult attachment styles were measured using the 18-item Adult Attachment Scale (AAS) comprising avoidant attachment ($\alpha = .71$), anxious attachment ($\alpha = .76$), and secure attachment ($\alpha = .63$) (Collins & Read, 1990). Participants were asked to rate each item on a 5-point Likert scale (1 = "not at all characteristic of me", 2 = "somewhat not characteristic of me", 3 = "neutral", 4 = "somewhat characteristic of me, 5 = "very characteristic of me"). Adult attachment style was defined as the attachment style that the adult participant had at the time of survey completion. Secure attachment was determined through high scores on dependent and close subscales in addition to low scores on anxiety subscales. And dependent subscales, low scores on anxiety subscales. Anxious attachment was determined through high scores on anxiety subscales in addition to moderate scores on both close and dependent subscales. Avoidant attachment was determined through low scores on close, dependent, and anxiety subscales.

Personality

Personality was measured using the Big Five Inventory (BFI; John & Srivastava, 1999). The BFI is made up of 44 separately rated single sentence questions describing the different Big Five personality traits: openness ($\alpha = .70$), conscientiousness ($\alpha = .74$), extraversion ($\alpha = .85$),

agreeableness (α = .80), and neuroticism (α = .85). The BFI is rated on a 5-point Likert scale (1 = "disagree strongly", 2 = "disagree a little", 3 = "neither agree nor disagree", 4 = "agree a little", 5 = "agree strongly").

Impulsivity

Impulsivity was measured using a revised version of the Barratt Impulsiveness Scale (α = .83) (BIS-11; Patton et al., 1995). The BIS-11 is made of 29 separately rated single sentence items describing impulsive and non-impulsive actions. BIS-11 is scored on a 4-point Likert scale (1 = "rarely/never", 2 = "occasionally", 3 = "often", 4 = "almost always/always"). Impulsivity was defined using the DSM-V definition; impulsivity is understood in terms of an aspect of disinhibition, and considered as an immediate reaction to stimuli, an unplanned reaction with no regard for its consequences, problem in programming or adhering to programs, sense of urgency and self-harming behavior in the time of emotional turmoil (Bakhshani, 2014).

Optimism

Optimism was measured using the Life Orientation Test Revised (LOT-R; α =.82; Scheier et al. 1994) and was defined as a tendency to expect favorable results in the future. The LOT-R is made up of 10 separately rated single sentence questions describing optimism. LOT-R is scored on a 4-point Likert scale (0 = strongly disagree, 1 = disagree, 2 = neutral, 3 = agree, and 4 = strongly agree).

Attitudes Towards Substance Abuse as a Coping Mechanism

Attitudes towards drug usage as a coping mechanism was measured using an adapted version of the Drug Abuse Screening Test (DAST) Survey. This survey is scored on a 'yes,' 'neutral,' or 'no' basis in response to the presented questions within the survey.

Procedure

The research design of this study was non-experimental and correlational, as it studied the relationship between attachment styles and personality on the attitudes toward substance abuse as a coping mechanism. Before the participants took the online survey, they all read and signed the consent form which included the purpose of the study, any risks and benefits included in the study, and ensured the understanding of the participants right to withdraw. Participants then read the cover page which provided instructions on how to proceed with the study if they chose to participate. There was one online survey that the participants took, this survey was made up of six parts that participants had to complete. These surveys were examining demographics, adult attachment, impulsivity, personality traits, optimism, and attitude towards substance use. Each participant answered the questions in the same order -- demographics, Adult Attachment Scale, Barrat Impulsivity Scale Revised ($\alpha = .83$), Life Orientation Test Revised ($\alpha = .82$)**,** The Big Five Inventory (extraversion [$\alpha = .85$], agreeableness [$\alpha = .80$], conscientiousness [$\alpha = .74$], neuroticism [$\alpha = .85$], and openness [$\alpha = .70$]), and attitude towards substance abuse ($\alpha = .83$). The Adult Attachment Scale measured: avoidant attachment ($\alpha = .71$), anxious attachment ($\alpha = .76$), and secure attachment ($\alpha = .63$). After reading the cover page, participants began filling out the survey via Qualtrics which was posted to the Seattle University Psychology Department SONA page or via Survey Monkey depending on Seattle University Status. All participants completed the survey via an online platform. The demographic portion of the survey assessed specifically: age, gender, education level, ethnicity, race, and Seattle University student status. The average amount of time spent taking the survey was 10 minutes.

All surveys were done confidentially and without supervision to maintain confidentiality and to allow participants to remain anonymous. All research materials and consent forms were stored in password protected laptops and only accessed by the investigators and faculty advisor.

Results

H1: Insecure-anxious and insecure-avoidant attachment will be positively correlated with more accepting attitudes towards substance abuse as a coping mechanism, whereas secure attachment will be negatively correlated with these attitudes.

The relationship between insecure-anxious attachment style and attitudes towards substance abuse as a coping mechanism was investigated using a Pearson correlation. Preliminary analyses were performed to ensure no violation of the assumptions of normality, linearity, and homoscedasticity. There was a significant modest, positive correlation between the two variables, $r = .26$, $n = 122$, $p < .001$, with higher insecure-anxious attachment being associated with higher acceptance of substance abuse as a coping mechanism.

The relationship between insecure-avoidant attachment style and attitudes towards substance abuse as a coping mechanism was also investigated using a Pearson correlation. Preliminary analyses were performed to ensure no violation of the assumptions of normality, linearity, and homoscedasticity. There was a small, positive correlation between the two variables, but it was not statistically significant, $r = .08$, $n = 122$.

The relationship between secure attachment style and attitudes towards substance abuse as a coping mechanism was investigated using a Pearson correlation. Preliminary analyses were performed to ensure no violation of the assumptions of normality, linearity, and homoscedasticity. There was a statistically insignificant small, negative correlation between the two variables, $r = -.15$, $n = 122$, $p = .08$.

H2: Higher neuroticism, higher impulsivity, lower conscientiousness, and lower optimism will correspond to more accepting attitudes towards substance abuse as a coping mechanism.

The relationship between neuroticism and attitudes towards substance abuse as a coping mechanism was investigated using a Pearson correlation. Preliminary analyses were performed to ensure no violation of the assumptions of normality, linearity, and homoscedasticity. There was a modest, positive correlation between the two variables, $r = .22$, $n = 122$, $p < .001$, with higher neuroticism being associated with higher acceptance of substance abuse as a coping mechanism.

The relationship between impulsivity and attitudes towards substance abuse as a coping mechanism was investigated using a Pearson correlation. Preliminary analyses were preformed to ensure no violation of the assumptions of normality, linearity, and homoscedasticity. There was a modest, positive correlation between the two variables, $r = .28$, $n = 122$, $p < .001$, with higher impulsivity being associated with greater acceptance of substance abuse as a coping mechanism.

The relationship between conscientiousness and attitudes towards substance abuse as a coping mechanism was investigated using a Pearson correlation. Preliminary analyses were performed to ensure no violation of the assumptions of normality, linearity, and homoscedasticity. There was a modest, negative correlation between the two variables, $r = -.27$, $n = 122$, $p = .001$, with lower conscientiousness being associated with higher acceptance of substance abuse as a coping mechanism.

The relationship between optimism and attitudes towards substance abuse as a coping mechanism was investigated using a Pearson correlation. Preliminary analyses were performed to ensure no violation of the assumptions of normality, linearity, and homoscedasticity. There was no statistically significant correlation between the two variables, r = -.09, n = 122, p = .31 (see Table 1).

Table 1

Pearson Correlations Between Measures of Attitudes Toward Substance Abuse as a Coping Mechanism, Attachment Style, and Personality

Scale	1	2	3	4	5	6	7	8	9
1. Attitudes Toward Substance Abuse as a Coping Mechanism	-								
2. Anxious Attachment	.26**	-							
3. Avoidant Attachment	.08	.35**	-						
4. Secure Attachment	-.16	-.43**	-.67**	-					
5. Impulsivity	.26**	-.40**	-.28**	.43**	-				
6. Conscientiousness	-.28**	-.29**	-.15**	.28**	.70**	-			
7. Optimism	-.09	-.39**	-.46**	.57**	.37**	.29**	-		
8. Neuroticism	.22*	.46**	.43**	-.55**	-.42**	-.38**	-.64**	-	
9. Agreeability	-.24	-.37**	-.48**	.49**	.33**	.23**	.28**	-.31**	-

**$p < .001$ (2-tailed)
*$p < .05$ (2-tailed)

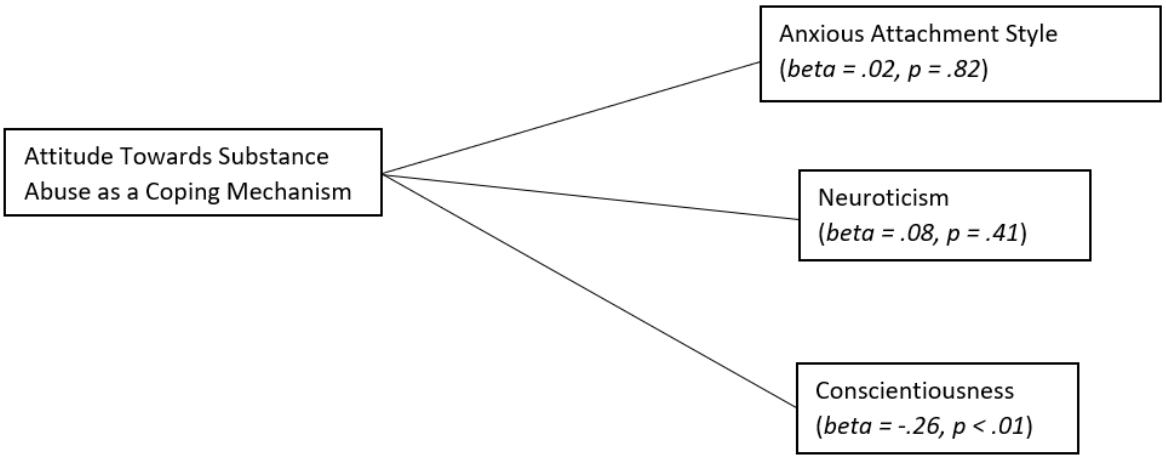
Exploratory Analysis: Attachment and Personality as Simultaneous Predictors of Attitudes Towards Substance Abuse

An exploratory multiple regression was conducted to examine the degree to which the attachment and personality variables simultaneously predict attitudes towards substance abuse as a coping mechanism. The multiple regression included variables that were significantly correlated with drug attitudes and were not too highly correlated with one another. Due to the strong correlation between impulsivity and conscientiousness, we only included conscientiousness in the multiple regression because there is more past literature on conscientiousness than impulsivity in the context of substance abuse. In the end, neuroticism, conscientiousness, and anxious attachment were included in the model. Preliminary analyses

were run to ensure no violation of the assumptions of normality, linearity, multicollinearity and homoscedasticity. One multivariate outlier was identified but not removed because the residual was close to -3.0.

The total variance explained by the model as a whole was 9.5% (F (3, 114) = 3.9, p = .01). Conscientiousness (*beta* =-.26) was found to have the largest impact on attitude towards substance abuse as a coping mechanism. Additionally, according to the standard multiple regression, anxious attachment (*beta* =.02) was found to have the smallest effect on attitudes towards substance abuse as a coping mechanism. Finally, neuroticism (*beta* = .08) was found to have a minor effect (see Table 2).

Table 2



Discussion

Our findings supported our first hypothesis. We found that insecure-anxious attachment was positively correlated with more accepting attitudes towards substance abuse as a coping mechanism. That is, those participants with insecure-attachment styles self-reported more accepting attitudes towards substance abuse as a coping mechanism than those with secure

attachment, with insecure-anxious attachment style being more highly correlated than insecure-avoidant attachment. These findings suggest that individuals with insecure attachment styles may be more accepting of others' abusing substances as a coping mechanism. Insecure-avoidant attachment, however, was found to not be related to drug attitudes.

Insecure-anxious attachment style may have had a stronger correlation to accepting attitudes towards substance abuse as a coping mechanism than insecure-avoidant attachment style because insecure-avoidant attachment style is negatively correlated with agreeableness. That is, those participants with insecure-avoidant attachment style exhibited lower agreeableness than those participants with insecure-anxious attachment styles. Future research should examine the roles of insecure-anxious versus insecure-avoidant more meticulously.

There was also a modest relationship between higher neuroticism and more accepting attitudes towards substance abuse as a coping mechanism. That is, those participants with higher neuroticism self-reported more accepting attitudes towards substance abuse as a coping mechanism than those with lower neuroticism. These findings suggest that more neurotic individuals may be more accepting of others' abusing substances as a coping mechanism.

Our findings also supported our second hypothesis. There was a correlation between higher conscientiousness and less accepting attitudes towards substance abuse as a coping mechanism. Those participants with higher conscientiousness self-reported lesser accepting attitudes towards substance abuse as a coping mechanism than those with lower conscientiousness. These findings may suggest that more conscientious individuals may have lesser accepting attitudes toward substance abuse as a coping mechanism.

There was also a correlation between higher optimism and less accepting attitudes towards substance abuse as a coping mechanism. Those participants with higher optimism self-

reported lesser accepting attitudes towards substance abuse as a coping mechanism than those with lower optimism. These findings may suggest that more optimistic individuals may have lesser accepting attitudes toward substance abuse as a coping mechanism.

We chose to perform our multiple regression on the variables anxious-attachment, conscientiousness, and neuroticism. This was because each of the four variables we measured for our hypotheses, these three were significantly correlated with attitudes towards substance abuse as a coping mechanism. Moreover, we chose conscientiousness rather than impulsivity for our hypothesis, and later multiple regression, because conscientiousness (unlike impulsivity) is a predictor not a predictor of using illicit substances.

Analyses showed higher impulsivity was correlated with more accepting attitudes towards substances of abuse as a coping mechanism. That is, those participants with higher impulsivity self-reported more accepting attitudes towards substance abuse as a coping mechanism than those with lower impulsivity. These findings may suggest that more impulsive individuals may have more accepting attitudes toward substance abuse as a coping mechanism, which agrees with previous literature.

Analyses also showed there was also a correlation between higher secure attachment style and less accepting attitudes towards substance abuse as a coping mechanism. That is, those participants with secure-attachment styles self-reported lesser accepting attitudes towards substance abuse as a coping mechanism. These findings suggest that individuals with a secure attachment style may be less accepting towards substance abuse as a coping mechanism.

Previous studies have not explored attitudes towards others' substance abuse. However, our findings were consistent with previous literature that exists on the relationships between personal substance abuse, attachment styles, and personality traits. The most important take-

away from our study was that our findings are supported by previous research on the relationship between attachment style, personality traits and addiction. Moreover, it is possible we saw our findings were consistent with addiction research because those individuals who abuse substances are also more accepting towards others using substance abuse as a coping mechanism.

There were a few limitations to our study. Firstly, we had a small, limited, convenience sample. Secondly, we used a long questionnaire and participants could have suffered from survey exhaustion. Moreover, there may have been a more effective method of assessing attitudes towards substance abuse as a coping mechanism, such as assessing the variable qualitatively. It may also be beneficial to include data regarding individual history of substance abuse, as well as attitudes towards personal substance use, socio-cultural background, and family history of substance abuse.

Overall, the results of this preliminary study on the independent variable of attitudes towards substance abuse as a coping mechanism revealed that there is some overlap between the predictors for use of illicit substances (insecure-anxious attachment, neuroticism, conscientiousness) and the predictors for attitudes towards substance abuse as a coping mechanism. However, further research is necessary in order to ascertain more important and impactful predictors. Moreover, this study and future research on attitudes towards substance abuse as a coping mechanism may be beneficial to the treatment of substance use disorder(s) because quality of close social bonds may act as predictors for substance abuse, and therefore the attitudes towards substance abuse as a coping mechanism held by close family and friends may influence the behavior of individuals who suffer from addiction.

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