Intention to Seek Help among Three Categories of Substance-Using College Students: Which Factors Matter?

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Abstract

The current study examined which promising help-seeking factors accounted for unique variance in help-seeking intention among substance-using college students. Participants included 8,416 substance-using college students from a USA national sample. Three separate logistic regressions were conducted to predict help-seeking intention among varying categories (i.e., marijuana, alcohol, and polysubstance) of substance-using college students. Tests of the full models against constant only models were statistically significant for all models, which indicated that the predictors collectively distinguished between substance-using college students who intended to seek help and those who did not. Wald criteria indicated that perceived treatment effectiveness, perceived need for psychological help, and perceived knowledge of mental illness made significant unique contributions to help-seeking intention for all three groups. Perceived public stigma was not a significant predictor of help-seeking intention in all models and personal stigma was not a significant predictor among the alcohol-using college students. These findings provide evidenced-based rationale for prioritizing these factors among substance-using college students.

Keywords: substance use; help seeking; stigma; perceived need; college; alcohol

Intention to Seek Help among Three Categories of Substance-Using College Students: Which Factors Matter?

For many, college is associated with excessive partying, binge drinking, and experimental drug use (Martens et al., 2006). Many college students report having access to substances (i.e., drugs and/or alcohol; Allen et al., 2017). Annual prevalence rates for illicit drug use continue to rise and are at a thirty year high (i.e., 43%; Schulenburg et al., 2017). Furthermore, the annual prevalence rate of drinking among college students is approximately 80% (Schulenburg et al., 2009), with more than 44% endorsing binge drinking (i.e., consuming 5 or more drinks) in the past two weeks (Hingson et al., 2009). Notably, the prevalence rates of alcohol (i.e., daily use and binge drinking) and amphetamine (e.g., Adderall, Ritalin) use were higher among college students than their non-college peers (Schulenberg et al., 2017). Substance use has significant adverse effects on student emotional and physical well-being and academic success, with many substance-using college students endorsing consequences such as poor physical health, failing to complete daily and academic responsibilities, and feelings of guilt and shame (Arria et al., 2013; Arria et al., 2015; Caldeira et al., 2008; Kertesz et al., 2007; Palmer et al., 2012).

Despite these negative outcomes, very few substance-using college students seek formal (i.e., from a mental health professional) treatment (Buscemi et al., 2010; Caldeira et al., 2009; Cellucci, Krogh, & Vik, 2006; Knight et al., 2002; Wu et al., 2007). Young adults are the least likely age group to seek help for substance use (Kessler et al., 2001). This provides support for the continued examination of factors that promote formal help seeking among substance-using college students. Broadly, research has found that personal stigma of seeking help (i.e., an individual's own stigmatizing attitudes toward seeking help; Eisenberg et al., 2009) and knowledge of mental illness (Beatie & Walker, 2016; Coles & Coleman; 2010) were

significantly related to psychological help seeking among college students.

Researchers have also begun identifying factors that promote formal help seeking among substance-using college students, specifically. Less perceived public stigma of seeking treatment (i.e., an individual's perception of the public's stigmatizing attitudes toward seeking treatment; Pedersen & Paves, 2014).), greater perceived treatment effectiveness (i.e., viewing therapy as effective; a key determinant of one's attitudes toward seeking help), and higher perceived need for psychological help promoted help seeking among substance-using college students (Caldeira et al., 2009; Cellucci et al., 2006; Wu et al., 2007). Importantly, there may also be differences in the predictors of help seeking as it relates to specific substances used. For instance, some substances are more stigmatized than others (Link et al., 1999; Martin et al., 2000). There have been differences in the endorsement of perceived need among adult community-dwellers depending on the substance used (e.g., Edlund, 2010; Falck et al., 2007; Oleski et al., 2010) and distinctions in perceived need and help seeking among college students who have marijuana or alcohol-use disorders (Caldeira et al., 2009).

However, much of the literature examines these factors in isolation, leaving unanswered the question of which factors are the most powerful predictors of the intention to seek formal help. Efficient prevention and intervention efforts require the identification of the narrow set of factors that account for unique variance in intention and thus deserve to be targeted by clinical and policy efforts. Researchers also often combine substances into a single broad category (e.g., substance use disorders; Mojtabai et al., 2002) or combine informal and formal help seeking (Buscemi et al., 2010), which prevents precise examination of predictors of formal help seeking as it relates to specific groups of substance-using college students.

In summary, there has been scant research comparing previously-identified factors that

promote help seeking among college students that are using varying substances. Therefore, the purpose of this study was to examine the unique relationships between five key factors (i.e., perceived public stigma of seeking help, personal stigma of seeking help, perceived treatment effectiveness, perceived need, and perceived knowledge of mental illness) and formal help-seeking intention among three categories of substance-using college students (i.e., marijuana, alcohol, polysubstance). By examining specific help-seeking variables among varying substance-using college students we may gain a better understanding of the help-seeking process for these underserved populations and begin identifying specific areas to intervene to promote formal help seeking for specific substance use concerns.

Method

Study Design

This study is a secondary analysis of the 2015-2016 Healthy Minds Study (HMS) dataset. The HMS is an annual web-based survey that examines health and treatment utilization in a national college sample across 23 large and small institutions in the United States (Healthy Minds Network, 2018). The HMS is approved by the Health Sciences and Behavioral Sciences Institutional Review Board at the University of Michigan and covered by a Certificate of Confidentiality from the National Institutes of Health.

Participants

The initial dataset comprised 9,992 substance-using (i.e., marijuana, alcohol, and polysubstance) college students. Institutions selected the modules that college students completed. Because not all participants completed all modules and logistic regression uses complete cases, we retained the 8,416 cases that had complete data on all variables. The sample was primarily between the ages of 18-24 (72%), female (63%), heterosexual (87%), U.S. citizens

(91%), attending a bachelor's program (76%), in their first (27%) or second year (24%), as a full-time student (93%). Regarding race, the respondents identified as White (78%), Asian or Asian American (11%), multiracial (6%). and Black or African American (2%). Among respondents that completed the item regarding current therapy, 12% indicated they were currently in talk therapy.

Measures

Formal help-seeking intention. Intention (0 = no, 1 = yes) to seek professional help was assessed by selecting "professional clinician (e.g., psychologist, counselor, or psychiatrist)" to the question "If you were experiencing serious emotional distress, whom would you talk to about this?"

Substance use. Personal substance use was assessed by the question "Over the past 30 days, have you used any of the following drugs?" and selecting all substances that applied. Selection options included marijuana, cocaine, heroin, methamphetamines, other stimulants (e.g., Ritalin, Adderall), and ecstasy. For the purpose of this study, the authors recoded all responses that included multiple (e.g., marijuana and alcohol) substances into a "polysubstance" category. Each group's data was separate from each other and the polysubstance group only included illicit substances.

Alcohol use. Personal alcohol use was assessed by the dichotomous (yes/no) question "Over the past 2 weeks, did you drink any alcohol?"

For the following items. higher scores indicated more of the construct (e.g., more perceived public stigma of seeking help, greater perceived treatment effectiveness).

Stigma. Both perceived public stigma and personal stigma were assessed with single-item measures adapted from the Devaluation-Discrimination Scale (Link, 1987; Link et al.,

1989) and used in past research (Eisenberg et al., 2009). Perceived public stigma of seeking professional help was assessed by the question "Most people think less of a person who has received mental health treatment." Personal stigma of seeking professional help was assessed by the question "I would think less of a person who has received mental health treatment." Both items were rated on a 6-point Likert-type scale from 1 (*strongly disagree*) to 6 (*strongly agree*).

Perceived treatment effectiveness. The perceived effectiveness of treatment was assessed with an item adapted from the Healthcare for Communities Study (Wells, Sturm, & Burnam, 2003) and used in previous research (e.g., Downs & Eisenberg, 2012). Perceived treatment effectiveness was assessed by a 4-point Likert-type scale from 1 (*not helpful*) to 4 (*very helpful*) to the question "How helpful on average do you think therapy or counseling would be for you if you were having mental or emotional health problems?"

Perceived need. Perceived need for psychological help was assessed by a 6-point Likert-type scale from 1 *(strongly disagree*) to 6 (*strongly agree*) to the question "In the past 12 months, I needed help for emotional or mental health problems such as feeling sad, blue, anxious or nervous."

Perceived knowledge of mental illness. Perceived knowledge of mental illness was measured consistent with previous research (i.e., Lipson et al., 2014). Perceived knowledge of mental illness was assessed by a 5-point Likert-type scale from 1 (*well below average*) to 5 (*well above average*) to the question "Relative to the average person, how knowledgeable are you about mental illnesses (such as depression and anxiety disorders) and their treatments?"

Statistical Methods

Preliminary analyses were conducted that included demographic factors found to correlate with help-seeking intention among college students (e.g., gender; Spitze, 2013). The

addition of these demographic factors did not change the significance of the help-seeking variables and engendered poor model fit and were thus excluded from final analyses. Three separate logistic regressions (see Table 1) were conducted using SPSS (v25) to predict help-seeking intention among three categories (i.e., marijuana, alcohol, and polysubstance use) of substance-using college students (Hosmer & Lemeshow, 2000). There was no evidence of problematic multicollinearity among the five independent variables (r's < .34). The independent variables were standardized as z-scores. Each logistic regression was conducted twice. The first regression analysis for each substance-use category was used to inspect standardized residuals and remove outliers (i.e., exceeding 2.58; King, 2008). This first regression analysis led to the removal of six cases for the marijuana-using category and 84 for the alcohol-using category. No cases were removed from the polysubstance-using category. The second analyses for each logistic regression are reported here. The Hosmer-Lemeshow goodness of fit test statistic was greater than .05 for all models, indicating that the models' estimates fit the data (King, 2008).

Results

Help-Seeking Intention among Marijuana-Using College students. A test of the full model against a constant only model was statistically significant, indicating that together the predictors distinguished between marijuana-using college students who intended to seek help compared to those who did not (χ^2= 124.897, p < .001, df = 5). Nagalkerke's R^2 of .366 indicated a moderate relationship between prediction and grouping. An examination of the classification table indicated that, compared to the constant only model, the full model had an increase of 60.9% for prediction success among the marijuana-using college students who would seek help. Overall prediction success increased from 60.7% to 71.8%. The Wald criterion indicated that only perceived treatment effectiveness, perceived need, and perceived knowledge of mental illness

accounted for significant variance in formal help-seeking intention.

Help-Seeking Intention among Alcohol-Using College students. The predictors distinguished between alcohol-using college students who intended to seek help compared to those who did not ($\chi^2 = 1952.992$, $p < .001$, $df = 5$). Nagalkerke's R^2 of .316 indicated a moderate relationship between prediction and grouping. The full model had an increase of 50.8% for prediction success among the alcohol-using college students who would seek help and overall prediction success increased from 65.1% to 73.3%. Personal stigma, perceived treatment effectiveness, perceived need, and perceived knowledge of mental illness made significant contributions to formal help-seeking intention.

Help-Seeking Intention among Polysubstance-Using College students. The predictors distinguished between polysubstance-using college students who intended to seek help compared to those who did not ($\chi^2 = 126.406$, $p < .001$, $df = 5$). Nagalkerke's R^2 of .291 indicated a small-moderate relationship between prediction and grouping. The full model had an increase of 52.5% for prediction success among the polysubstance-using college students who would seek help and overall prediction success increased from 61% to 70.4%. Personal stigma, perceived treatment effectiveness, perceived need, and perceived knowledge of mental illness made significant contributions to formal help-seeking intention.

Discussion

This study examined predictors of formal help-seeking intention among three categories of substance-using college students. This study demonstrated that perceived treatment effectiveness, perceived need, and perceived knowledge of mental illness each accounted for unique variance in intention in all three types of substance users, whereas personal stigma of seeking help was only relevant among alcohol-using and polysubstance-using college students

and perceived public stigma of seeking help was never able to predict intention. These findings, drawn from a national sample of college students, provide clarity and direction for future prevention and intervention efforts designed to increase formal help-seeking among college students using these three classes of substances. Specifically, certain factors (e.g., perceived treatment effectiveness) are reliably tied to help-seeking intention across substance use categories and thus suitable targets for intervention, whereas other factors (i.e., perceived public stigma) are less important targets, or are relevant targets only for specific substance-using college students (i.e., personal stigma).

These results suggest that intervention efforts may be most effective when they positively influence individuals' evaluation of formal psychological treatment, promote the perception of needing formal psychological treatment, and increase knowledge about mental illnesses among substance-using college students. This information may be useful considering the lack of financial and personal resources in counseling centers (New, 2017). Psychoeducational intervention efforts that promote mental health literacy for substance-use concerns may assist in fostering a perception of need for psychological help for substance-using college students. In fact, Mojtabai et al. (2013) suggested that improving problem recognition may promote help seeking by promoting perceived need. Yu et al. (2003) also found that educational interventions promoted more positive perceptions of treatment among substance-using college students.

Consistent with previous literature, perceived public stigma was not a significant contributor to help-seeking intention (Eisenberg et al., 2008; Eisenberg et al., 2009), although personal stigma was significant in the alcohol and polysubstance-using groups. This suggests that, as it pertains to help seeking, an individual's perception of the public's stigmatizing beliefs are not as important as the individual's own stigmatizing beliefs. Therefore, interventions may be

more effective when targeting an individual's beliefs rather than the public's. Future research should continue to examine these mixed findings.

Limitations and Future Directions

Findings should be considered in light of study limitations. First, the cross-sectional design prevents causal conclusions. Future research would benefit from longitudinal designs that can confirm the relationship between these factors and future help-seeking behavior. However, according to the Ajzen's (1991) Theory of Planned Behavior, intention is defined as "indications of how hard people are willing to try, of how much of an effort they are planning to exert, in order to perform the behavior" (p. 181). Therefore, the stronger the intention, the more likely the behavior is to occur. Despite the use of a large national sample, the respondents are not completely representative of the college student population (e.g. students of Color), so research focused on specific cultural groups of interest (e.g. Black students) is needed. While prior research has supported theoretically-consistent associations among these help-seeking factors using these single-item instruments (e.g., Cranford et al., 2008), such instruments preclude estimation of reliability and may not measure the constructs to the same degree of fidelity as multi-item instruments. Additionally, the current study examined help-seeking intention in the event the college student was experiencing serious emotional distress and not concerns related to their substance use. Although, individuals with substance use disorders, without any other diagnosable mental health condition, are approximately twice as likely to seek mental health treatment than they are specialty substance use treatment (Ali, Teich, & Mutter, 2015). Furthermore, the study included individuals who self-reported using substances, rather than diagnostic criteria. This is consistent with a public health perspective (West, 2013) and may include individuals who are using problematically (i.e., causing harm to themselves or others)

that may still benefit from clinical intervention. Lastly, participants may have been influenced by socially desirable responding (Lucas & Baird, 2006), especially when considering the endorsement of stigma (Corrigan & Shapiro, 2010). However, the anonymous nature of the survey likely reduced the potential impact of this response style.

Conclusion

In summary, these results provide initial support for the targeting of perceived treatment effectiveness, perceived need, and perceived knowledge of mental illness when seeking to enhance the help-seeking intention of three categories of substance-using college students. Addressing personal stigma among college students using alcohol and multiple illicit substances was also supported, while a focus on reducing the perceived public stigma of seeking help was not justified by the present results. Future research offers the opportunity to clarify and generalize these findings by examination of specific cultural groups in the context of longitudinal research.

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Conflict of Interest

Zachary A. Dschaak and Joseph H. Hammer declare that they have no conflict of interest.

Informed Consent

All procedures followed were in accordance with the ethical standards of the responsible committee on human experimentation (institutional and national) and with the Helsinki

Declaration of 1975, as revised in 2000 (5). Informed consent was obtained from all patients for being included in the study.

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Table 1
Logistic regression predicting formal help seeking among substance-using college students

Variable	Marijuana (*N* =397)				Alcohol (*N* = 7496)				Polysubstance (*N* = 523)			
	OR	95% CI		*p*	OR	95% CI		*p*	OR	95% CI		*p*
		Lower	Upper			Lower	Upper			Lower	Upper	
Constant	.404			.001	.416			.001	.417			.001
PPS	.942	.735	1.207	.638	1.004	.943	1.068	.907	1.114	.884	1.405	.361
PS	1.161	.868	1.554	.315	.819	.763	.879	.001	.746	.578	.962	.024
PTE	2.545	1.921	3.373	.001	2.027	1.901	2.162	.001	1.955	1.573	2.431	.001
PN	2.254	1.708	2.975	.001	2.213	2.088	2.345	.001	1.979	1.578	2.483	.001
PKMI	1.395	1.089	1.787	.008	1.566	1.476	1.663	.001	1.471	1.172	1.846	.001

Notes. Dependent variable coded as 1 = intend to seek help, 0 = do not intend to seek help, PPS = perceived public stigma of help seeking, SS = personal stigma of help seeking, PTE = perceived treatment effectiveness, PN = perceived need for psychological help, PKMI = perceived knowledge of mental illness, OR = odds ratio, CI = confidence interval