The Role of Experiential Avoidance

in Predicting Help Seeking Among College Students

by

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ABSTRACT

Research indicates that mental health issues are highly prevalent among college students (e.g., American College Health Association, 2018) and that first-generation students could be a higher risk of experiencing psychological distress compared to continuing-generation college students (House et al., 2019). Research also documents approximately two thirds of psychologically distressed college students do not seek help or mental health services (Hunt & Eisenberg, 2010). The purpose of the study was to contribute to the line of research on help seeking attitude and intention among college students by (1) examining potential group differences in the relationships between self-stigma, experiential avoidance, and help seeking attitude between first-generation college students and continuing-generation college students and (2) proposing the integrative model including variables from the moderated mediation model proposed by Brenner et al. (2019) and the theory of planned behavior (Ajzen, 1991; Ajzen & Fishbein, 1980). The final sample for the study consisted of 295 college students (M_{age} = 22.95, SD_{age} = 5.94). Of the final sample consisting of 295 participants, 174 (59%) students identified themselves as continuing-generation college students whereas 121 (41%) students identified as first-generation college students. The data were collected via an online survey and were analyzed through descriptive statistics and structural equation modeling. The results did not support the proposed differences between first-generation college students and continuing-generation college students in the moderated mediation model of help seeking. The inconsistent results between the present study and previous research may be attributable to sample size, diversity factors of samples, and/or timing of data collection. The results rendered some support for adding self-stigma as a modifying

variable to the theory of planned behavior. The implications of the results in relation to research and practice are discussed.

DEDICATION

I would like to thank my family, especially my grandmother, for keeping faith in me for all these years and for encouraging me to take my chance to live, study, and thrive in another country as a future psychologist.

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TABLE OF CONTENTS

CHAPTER Page

LIST OF TABLES

Table Page

LIST OF FIGURES

Figure Page

CHAPTER 1

INTRODUCTION

Despite many universities and colleges increasingly attending to students' mental health needs, approximately two thirds of psychologically troubled students do not seek out services (Hunt & Eisenberg, 2010). Research suggests that a multitude of barriers, both physical (e.g., cost and availability) and psychological (e.g., stigma), hinder individuals' willingness to seek help (e.g., Andrade et al., 2013; Brenner et al., 2019; Cauce et al., 2002; Corrigan, 2004, 2006, Garriott et al., 2017). Resource-wise, individuals may not have access to service providers and/or financial resources to afford mental health services. Psychologically, one may be afraid that others would view one negatively by seeking help (i.e., public stigma) or that seeking help would damage one's belief in their own competence/resiliency (i.e., self-stigma) (Brenner et al., 2019; Vogel et al., 2006; Vogel et al., 2007). Research indicates that psychological or attitudinal variables, including public stigma and self-stigma, are more strongly associated with help seeking than other variables (Andrade et al., 2013). Furthermore, the relationship between self-stigma and help seeking attitudes appears to be more pronounced among first-generation students than among continuing-generation students (Garriott et al., 2017). Additionally, research has indicated that self-stigma rather than public stigma is a proximal predictor of help seeking (Eisenberg et al., 2009; Vogel et al., 2006; Vogel et al., 2017). Eisenberg et al. (2009) have also suggested that students with certain demographic backgrounds, including being male, younger, of Asian or international origin, religious, and/or from lower socioeconomic status, would experience higher levels of self-stigma than others. Overall, self-stigma plays an important role in the help-seeking

decision making process among college students and perhaps even more so among first-generation students.

Research over the past few decades has shown that an alarmingly high number of college students experience some forms of psychological stress, particularly depression and anxiety, that are severe enough to interfere with their functioning (American College Health Association, 2018; Castillo & Schwartz, 2013; Hunt & Eisenberg, 2010; Kitzrow, 2003). In light of such ongoing mental health crises on campus, first-generation college students, who represent approximately one third of the current college student population (U.S. Department of Education, 2018) hold a distinctive presence because of unique stressors facing them (House et al., 2019; Kalkbrenner, et al., 2021). First-generation students are more likely to be ethnic/racial minorities, come from lower socioeconomic backgrounds, and have little financial resources and social support (House et al., 2019), which are known as risk factors for increased vulnerability to mental health problems (Hunt & Eisenberg, 2010; Tran et al., 2018). Furthermore, first-generation students typically experience an added layer of academic, social, and financial stressors on top of general stressors associated with college life compared to continuing-generation students; such stressors include inadequate academic preparation, lack of support from family and friends, difficulty juggling school and work, and cultural adjustment issues (House et al., 2019; Kalkbrenner, et al., 2021). Given these findings that may indicate first-generation students' heightened vulnerability to mental health concerns as compared to continuing-generation students, it is crucial that research focuses on mental health and help seeking among these students.

Given the documented mental health crises on campus as well as risk factors for

psychological distress and difficulty overcoming self-stigma among college students, particularly among first-generation students, it is imperative for mental health professionals to reach out to these students and help promote their mental health. However, despite decades of research supporting the effectiveness of psychotherapy and potential mechanisms of how it works (e.g., Norcross & Lambert, 2011; Norcross & Wampold, 2011; Wampold, 2001), reaching out to those who can benefit from mental health services has been tremendously challenging. Indeed, Vogel et al. (2006) has referred to the underutilization of mental health services as "an unsettling paradox" (p. 325). More research is clearly needed to help resolve the challenge to our field.

As an attempt to help resolve the challenge of promoting help seeking behavior, a novel line of research focused on psychological flexibility has emerged. In a recently published study, Brenner et al. (2019) examined whether psychological flexibility or one's ability to consider a wide range of behavioral, cognitive, and affective options in response to perceived demands may serve as a moderator between self-stigma and help seeking behavior among college students within Vogel et al.'s (2006, 2017) model of help seeking. In operationalizing psychological flexibility, Brenner et al. (2019) focused on a specific dimension of psychological flexibility within the acceptance and commitment therapy framework (ACT; Hayes & Smith, 2005). Experiential avoidance refers to any attempts by an individual to suppress or avoid typically unpleasant internal and external stimuli, including one's own feelings and thoughts (Hayes & Smith, 2005). Brenner et al. (2019) found that self-stigma appears to hinder help-seeking intentions among those with high experiential avoidance or one's tendency to avoid unpleasant internal experiences (i.e., emotions and thoughts), but not among those with low

experiential avoidance. They have suggested that those with high experiential avoidance are likely to avoid help seeking so that they can avoid experiencing unpleasant emotions (Brenner et al., 2019). Their mediated moderation model is promising in terms of highlighting a new venue of intervention (e.g., reducing experiential avoidance; increasing mindfulness and acceptance) and provides an alternative to ongoing attempts to directly reduce such stigma that have been met with mixed results (e.g., Henderson et al., 2013). Overall, Brenner et al.'s (2019) mediated moderation model of help seeking provides an alternative approach to promote help seeking, which in turn may help resolve the challenge of reaching out to those who can benefit from psychological services but who are hesitant to engage.

To further investigate the extent to which psychological flexibility— experiential avoidance in particular— plays a role in one's decision-making process related to help seeking among college students, particularly those who identify themselves as first-generation, the present study will attempt to integrate psychological flexibility into the broader framework of the theory of planned behavior (TPB; Ajzen, 1991; Ajzen & Fishbein, 1980). In the study referenced previously, Brenner et al. (2019) examined the mediator/moderator role of experiential avoidance focusing on the specific path of the barriers (i.e., stigma) and help seeking within Vogel et al.'s (2006, 2017) model of help seeking, which in turn drew on the TPB (Ajzen, 1991; Ajzen & Fishbein, 1980). Clarifying the role of experiential avoidance in help seeking is important because such understanding of psychological flexibility as a predictor of help seeking will help inform outreach efforts, which is a major area of focus particularly in university counseling settings (e.g., Boone et al., 2011).

Overall, the proposed study will further investigate the role that psychological flexibility plays in help seeking behavior among college students with a special focus on first-generation vs. continuing-generation status. The proposed study's main goal is to test whether the mediated moderation model, which is an extension of the TPB proposed by Brenner et al. (2019), is applicable to first-generation students. To achieve this goal, the proposed study will explore differences in path loadings within the context of structural equation modeling between the hypothesized model between first-generation and continuing-generation students to examine any notable differences in the phenomenon of help seeking between first-generation and continuing-generation students. Increasing help seeking among students at risk of developing serious mental health conditions can benefit both students themselves and colleges. From a student perspective, improved mental health helps ensure full college experiences and achieving personal/professional successes (House et al., 2019; Hunt & Eisenberg, 2010). From a university perspective, such efforts can help ensure students' learning outcomes, including improved retention and graduation rates, which are significantly lower among first-generation students (U.S. Department of Education, 2018). In the following sections, a review of literature relevant to the present study's theoretical background as well as hypotheses will be provided.

CHAPTER 2

REVIEW OF THE LITERATURE

In the following review of literature, I will provide theoretical and empirical bases of the proposed study.

College Mental Health Crises

Research for the past few decades has shed light upon the growing significance of mental health concerns on university campuses across the United States (e.g., American College Health Association, 2018; Kitzrow, 2003). Anxiety and depression are endorsed as common mental health problems among college students. According to the National College Health Assessment, which is an annual survey conducted by the American College Health Association (2018), 64.3% of current students reported severe anxiety, 42.9% debilitating depressive symptoms, and 13% suicidal ideation in the past 12 months. Of concern, there is a noticeable number of students who have engaged in self-injurious behavior (8.6%) as well as students who have attempted suicide (2%) within the last 12 months. The high prevalence of mental illnesses is comparative between student population and non-student population with some subtle differences in the prevalence of substance use in which alcohol use appears to be more problematic among college students than their same-aged non-student peers (Hunt & Eisenberg, 2010). Overall, the existing data suggest that the college-aged population experiences mental health issues to a concerning degree.

College can be a stressful time for any student in terms of adjustment; however, some students are more at risk of experiencing difficulties than others. Socioeconomic

backgrounds, interpersonal difficulties, low or lack of social support, or prior exposure to trauma have been suggested to be risk factors for psychological distress among college students (Adams et al., 2016; Hunt & Eisenberg, 2010). First-generation students are more likely to endorse one or more risk factors than their continuing-generation peers. Furthermore, first-generation students report stressors specific to their circumstances, including inadequate academic preparation, lack of support from family and friends, and cultural adjustment issues (House et al., 2019). Consistently, researchers found that first-generation students would report significantly higher levels of academic stress, hours spent working, and financial concerns than continuing-generation students (House et al., 2019). Furthermore, in one study the risk of dropout was found to be 71% higher for first-generation students than for continuing-generation students even after controlling for race, gender, high school GPA, and household income (Ishitani, 2003). Similarly, Soria and Stebleton (2012) found lower levels of academic engagement and the lower retention rate among first-generation students as compared to continuing-generation students (Soria & Stebleton, 2012). These reported differences in educational outcomes between first-generation students and continuing-generation students could be related to various factors and stressors unique to first-generation students, including relative lack of academic self-efficacy as well as lack of belongingness at university (Pratt et al., 2019). Given the suspected higher vulnerability to mental health concerns among first-generation students, it is crucial that research focuses on how to better connect these students with services available on campus. College is a transformative period of time in one's life (Hunt & Eisenberg, 2010), and promoting mental health among the population has long-term implications for their personal and professional successes.

Barriers to Mental Health/Help Seeking

Research suggests a multitude of barriers, both physical and psychological, that hinder individuals' willingness to seek help (e.g., Andrade et al., 2013; Cause et al., 2002; Garriott et al., 2017). Resource-wise or structurally, individuals may not have access to service providers and/or financial resources to afford mental health services. Intriguingly, research has indicated that psychological or attitudinal variables such as stigma toward mental health and help seeking are more strongly associated with help seeking than physical or structural obstacles (Andrade et al., 2013). Among psychological or attitudinal variables, there is an extensive literature on the role that stigma plays in an individual's help-seeking intentions (Corrigan, 2004, 2006). The literature distinguishes two types of stigma, namely public stigma and self-stigma (Vogel et al., 2017). Public stigma refers to one's perception that society regards individuals who seek help as socially inadequate (Vogel et al., 2006, 2017). This is "an external form of stigma" (Vogel et al., 2017, p. 3) that can be internalized to form self-stigma. Self-stigma in turn is defined as "the reduction of an individual's self-esteem or self-worth caused by the individual self-labeling oneself as someone who is socially unacceptable" (Vogel et al., 2006, p. 325). In other words, one could be afraid that others would view oneself negatively by seeking help (i.e., public stigma) or that seeking help would damage one's belief in their own competence/resiliency (i.e., self-stigma; Vogel et al., 2017). In the literature, the two types of stigma are closely linked yet serve different functions.

Theoretical Understanding of Help Seeking

Indeed, the understanding of what roles public stigma and self-stigma play in students' help seeking intentions provides a foundation for Vogel et al.'s (2007, 2017) model of help seeking, which in turn draws on the theory of planned behavior or TPB (Ajzen, 1991; Ajzen & Fishbein, 1980). The TPB (Ajzen, 1991) is a classical theory in social psychology, which posits that whether or not deliberate behavior (e.g., help seeking) is carried out by an individual relies on three determinants: one's attitude toward the behavior in question (i.e., positive or negative feelings/thoughts related to engaging in the target behavior), subjective norms (i.e., one's perception of how engaging in the target behavior is evaluated by others and in a given culture/society), and perceived behavioral control (i.e., one's beliefs related to the perceived level of difficulty with engaging in the target behavior)— three factors predict one's intention to engage in the target behavior. According to Ajzen (1991), the TPB predicts that:

> As a general rule, the more favorable the attitude and subjective norm with respect to a behavior, and the greater the perceived behavioral control, the stronger should be an individual's intention to perform the behavior under consideration. The relative importance of attitude, subjective norm, and perceived behavioral control in the prediction of intention is expected to vary across behaviors and situations. (p. 188)

The TPB has been applied to predict a wide range of behavior (Ajzen, 1991), including help seeking (e.g., Vogel et al., 2007, 2017), and has ample empirical evidence to support its predictive utility (e.g., Nejad et al., 2005; Quine et al., 2001).

In Vogel et al.'s (2007, 2017) model of help seeking, public stigma and self-stigma have been introduced as antecedents of one's attitude toward help seeking within the TPB framework. More specifically, public stigma is conceptualized as a source of self-stigma that directly predicts one's attitude toward help seeking, which in turn informs one's intention to actually seek help (Vogel et al., 2007, 2017). Vogel et al. (2007) tested their model, which was an expansion of the TPB, with a sample of 676 college students to find empirical support for the mediation. Furthermore, Vogel et al. (2017) found support for their model in a cross-cultural study of 3,276 college students across 10 countries. In summary, Vogel et al.'s (2007, 2017) work provides a theoretical basis to understand help seeking among the college population.

A recent study has also indicated that self-stigma may be more impactful on first-generation students' attitudes and willingness to seek help compared to public stigma (Garriott et al., 2017). Garriott et al. (2017) tested Vogel et al.'s (2017) model with a sample of first-generation students and continuing-generation students. They found that self-stigma was more strongly associated with help seeking attitudes/intentions among first-generation students whereas perceived/public stigma was more strongly associated with help seeking attitudes/intentions among continuing-generation students. Drawing on the literature of first-generation students (e.g., Orbe, 2004; Ward et al., 2012), the researchers suggested that seeking help might pose an imminent threat to one's self-efficacy for succeeding in college, which is detrimental to those students who tend to come in with lower self-efficacy compared to their continuing-generation peers. Given such findings, addressing self-stigma or one's negative self-evaluation toward seeking help, as opposed to public stigma or one's appraisal of how others would view help

seeking in general, appears to be an important step to reach out to first-generation students.

The Promising Role of Psychological Flexibility

As mentioned in the previous section, there has been extensive literature on stigma toward mental health, and interventions have been made to reduce public stigma; however, such efforts have been met with mixed results (Corrigan et al., 2012; Henderson et al., 2013; Mittal et al., 2012). Given the difficulty of reducing stigma toward help seeking, a group of researchers have started looking into what may help mitigate the relationship between stigma and help seeking (Brenner et al., 2019). Brenner et al. (2019) integrated experiential avoidance, a dimension of psychological flexibility which is a key construct in acceptance and commitment therapy (ACT; Hayes & Smith, 2005), into Vogel et al.'s (2007) model of help seeking. Experiential avoidance refers to one's inability to tolerate and embrace their inner, private experience as it is (Hayes & Smith, 2005). Brenner et al. (2019) hypothesized that experiential avoidance might help suppress painful or unpleasant emotions such as shame while also hindering help seeking intention among those who experience high self-stigma and that those with less experiential avoidance would be able to seek help due to their acceptance of such negative emotional experiences. Brenner et al. (2019) tested their mediated moderation model of help seeking in a college sample to find empirical support.

The significance of Brenner et al.'s (2019) findings is evident in terms of paving a new direction of intervention to promote help seeking. More specifically, it may be possible to deliver interventions focused on reducing emotional avoidance, instead of change-resistant stigma, to increase help seeking. There is some promising evidence to

suggest that a self-affirmation exercise completed before receiving psychoeducation resulted in more intentions to seek help a week later, however; there was no change in levels of self-stigma (Seidman et al., 2018). Interestingly, Brenner et al. (2019) found that the mediated moderation of experiential avoidance was not significant among those who reported low experiential avoidance, indicating that other factors might play a more important role in the help-seeking decision making process among those individuals. One goal of the present study is to provide a more comprehensive picture of how psychological flexibility may figure into the help-seeking decision making process among college students, particularly first-generation students, through integrating the variable into the original holistic framework of the TPB (Ajzen, 1991). According to Ajzen (1991), such expansion and modification of the TPB would be recommended to increase precision in predicting complex behavior as he has stated as follows:

> The theory of planned behavior is, in principle, open to the inclusion of additional predictors if it can be shown that they capture a significant proportion of the variance in intention or behavior after the theory's current variables have been taken into account. The theory of planned behavior in fact expanded the original theory of reasoned action by adding the concept of perceived behavioral control. (p. 199)

As such, expanding the model according to new findings (i.e., Brenner et al., 2019) would be a theoretically sound approach to increase predictive validity or model fit of the TPB with regard to help seeking among college students with a special focus on first-generation vs. continuing-generation status.

The Present Study

The present study has two purposes. First, the proposed study will test whether Brenner et al.'s (2019) mediated moderation model, which is based on the TPB, holds invariant among a sample of diverse first-generation college students. The invariance will be examined through comparing differences in path loadings in the hypothesized model between first-generation and continuing-generation students through structural equation modeling. Second, the proposed study will test whether an inclusion of public stigma, self-stigma, and experiential avoidance help explain more variance in help seeking intentions among college students as predicted by the TPB.

Research Questions and Hypotheses

Research questions (RQs) and hypotheses for this study are as follows.

RQ1: Does the moderated mediation model by Brenner et al. (2019; see Figure 1) hold invariant among first-generation and continuing-generation students?

H1a: The relationship between self-stigma and help seeking intention is hypothesized to be stronger among first-generation students than among continuing-generation students.

H1b: The direct and moderating effect of experiential avoidance is hypothesized to be greater for first-generation students.

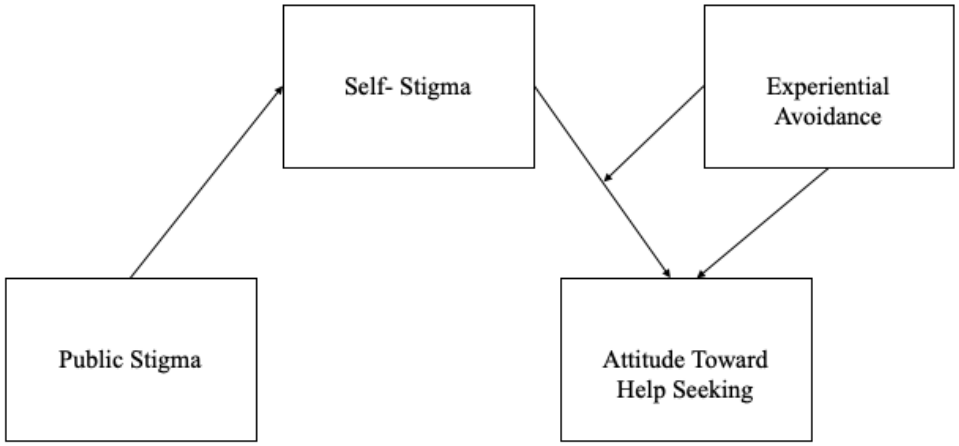

Figure 1. The Moderated Mediation Model Public Stigma, Self-Stigma, Help Seeking, and Experiential Avoidance. The figure shows the adapted moderated mediation model of help seeking proposed and tested by Brenner et al. (2019).

RQ2: Does an inclusion of public stigma, self-stigma, and experiential avoidance increase the model fit of the TPB (Ajzen, 1991) with regard to help seeking intentions among college students?

H2: I hypothesize that compared to the original TPB model (Figure 2), the expanded TPB model (Figure 3) will provide a better model fit to explain the relationships among the focal variables.

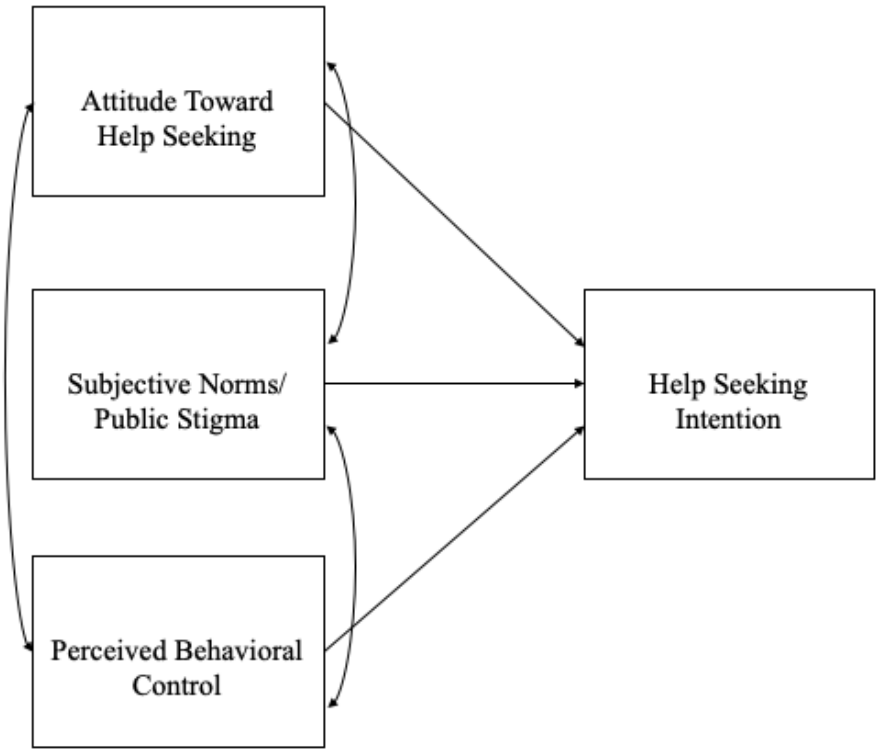

Figure 2. The Model of Help Seeking Based on the Original Theory of Planned Behavior by Ajzen (1991).

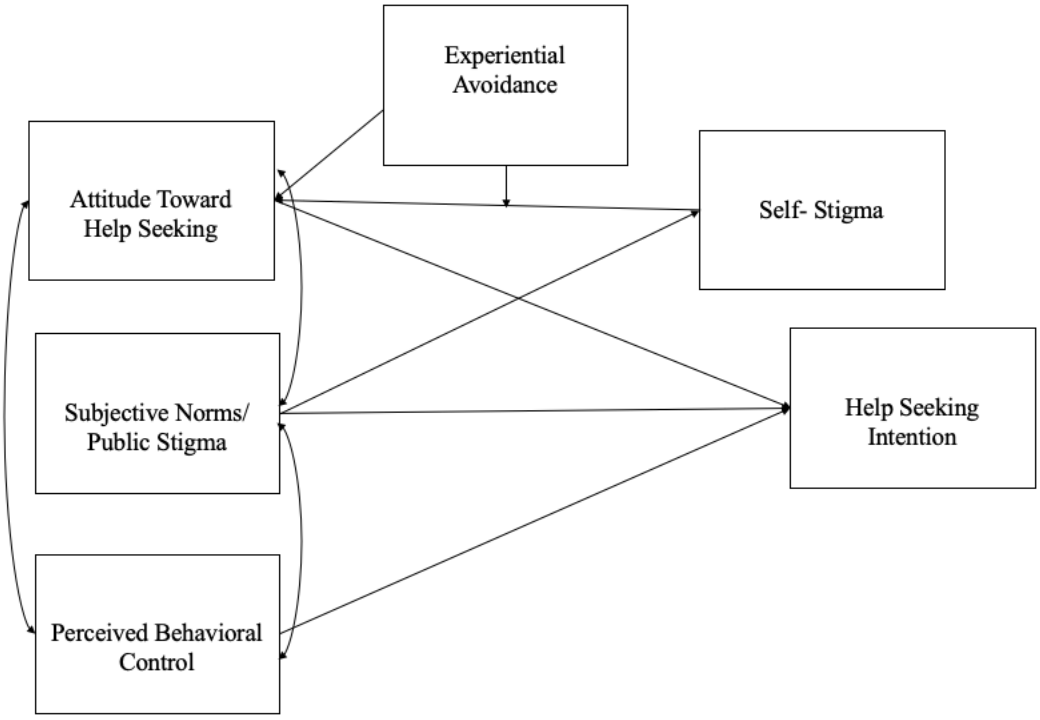

Figure 3. The Expanded Model of Help Seeking Based on the Theory of Planned Behavior.

CHAPTER 3

METHODOLOGY

Participants

Participants were recruited online through various undergraduate courses being conducted in the Spring 2021 semester at a large public university in the U.S. southwest. Those courses included Psychology 101, upper psychology courses, and Counselor Education courses along with other courses offered in various disciplines. The author reached out to course instructors and university departments across disciplines via email to request sharing of the present study's flyer and recruitment message with current students, which were both approved by the Institutional Review Board at Arizona State University. Inclusion criteria for the proposed study were the following: being 18 years or older, holding a U.S. citizenship or permanent residency, being enrolled as a full-time undergraduate student, and currently attending a university in the United States.

Participants were compensated with Amazon gift cards ($5 per participant) for their study participation. The funding for the present study was provided by the Graduate and Professional Student Association at Arizona State University. Per priori power analysis that was conducted based on the framework proposed by MacCallum et al. (1996) and using the R code generator developed by Preacher and Coffman (2006), I conducted a priori sample size analysis with an alpha of .05 level (one-tailed test), *df* of 10 (for path model), and statistical power of .80. Effect size (ε) is defined as RMSEA, and I adopted a null value of $\varepsilon 0 = .09$ because .08 is the cutoff value for model evaluation in this study. Under these conditions, minimum required sample sizes for different values of ε were 213 ($\varepsilon 1 = 0$), 219 ($\varepsilon 1 = .01$), 237 ($\varepsilon 1 = .02$), 273 ($\varepsilon 1 = .03$), 341 ($\varepsilon 1 = .04$), 472

(ε1 = .05), 766 (ε1 = .06), 1613 (ε1 = .07), 6250 (ε1 = .08). This result showed that the size of sample needs to be at least 213 to yield an adequate fitting model.

A total of 317 college students participated in the survey. Of the participants, 15 participants did not complete any items after the informed consent page and 5 completed demographic items (Appendix B) partially; these entries were deleted prior to the data analysis. Additional 2 participants were eliminated from the original data final set due to having only 64% completion rate. The other 10 cases that contained less than 10% missing data were retained for the data analysis.

The final sample consisted of responses from 295 participants (M_{age} = 22.95, SD_{age} = 5.94). Table 1 shows the demographic information for the overall sample as well as by groups (i.e., first-generation students and continuing-generation students). Of the final sample consisting of 295 participants, 174 (59%) students identified themselves as continuing-generation college students whereas 121 (41%) students identified as first-generation college students.

In terms of gender, 222 (75.3%) were female, 64 (21.7%) were male, and 9 (3%) identified as nonbinary, questioning, or transgender. Regarding sexual identity, 210 (71.2%) identified themselves as heterosexual, 37 (12.5%) as bisexual, 13 (4.4%) as pansexual, 12 (4.1%) as questioning, 6 (2%) as Lesbian, and 4 (1.4%) as Gay. The remaining 13 participants preferred not to report their sexual identity. With regard to ethnic/racial backgrounds, 155 (52.5%) identified themselves as White, 58 (19.7%) identified as Latinx/Hispanic, 27 (9.2%) as Asian American, 25 (8.5%) as multiracial, 14 (4.7%) as Black/African American, 5 (1.7%) as Native American, and 3 (1%) as Native Hawaiian or Pacific Islander. The remaining 7 participants preferred not to report their

ethnicity/race. As for socioeconomic status (SES), 222 (75.3%) reported perceiving themselves as from middle class, 53 (18%) from lower class, and 18 (6.1%) from upper class. The remaining 2 participants opted out from answering the SES item.

Table 1
Demographics of The Final Sample (N = 295)

		Overall (*n* = 295)		First-Gen (*n* = 121)		Continuing (*n* = 174)	
Gender		*Frequency*	*%*	*Frequency*	*%*	*Frequency*	*%*
	Male	64	21.7	19	15.7	45	25.9
	Female	222	75.3	101	83.5	121	69.5
	Other	9	3	1	.8	8	4.6
Sexual Orientation		*Frequency*	*%*	*Frequency*	*%*	*Frequency*	*%*
	Heterosexual	210	78.8	92	76.0	118	67.8
	Gay/Lesbian	10	9.1	2	1.6	8	4.6
	Bisexual	37	6.1	13	10.7	24	13.8
	Questioning	12	3.0	4	3.3	8	4.6
	Pansexual	13	0.0	5	4.1	8	4.6
	Prefer Not To Answer	13	3	5	4.1	8	4.6
Race/Ethnicity		*Frequency*	*%*	*Frequency*	*%*	*Frequency*	*%*
	White	155	48.5	53	43.8	102	58.6
	Latinx/Hispanic	58	12.1	33	27.3	25	14.4
	Black/African American	14	12.1	8	6.6	6	3.4
	Asian American	27	18.2	11	9.1	16	9.2
	Native American	5	0.0	3	2.5	2	1.1
	Native Hawaiian or Pacific Islander	3	0.0	2	1.7	1	.6
	Biracial/Multiracial	25	6.0	10	8.3	15	9.2
	Prefer Not To Answer	7	3.0	1	.8	7	4.0

As for the academic level, 54 (18.3%) reported their year in school as freshman, 80 (27.1%) as sophomore, 83 (31.5%) as junior, and 68 (23.1%) as senior. The participants also varied in their choice of academic field; 117 (39.7%) identified their discipline as social sciences, 93 (31.5%) as natural sciences, 37 (12.5%) as Arts & Humanities, 22 (7.5%) as interdisciplinary, and 6 (2.0%) as undeclared. The remaining 20 participants preferred not to report their current majors. Of the final sample, 149

(50.5%) identified themselves as ground/in-person college students whereas 146 (49.5%) identified themselves as online college students.

Measures

Current Psychological Functioning

One's current psychosocial functioning has been suggested as an important condition to control for in previous research (Brenner et al., 2019). As such, the measure was treated as control variables or covariates in the study when testing the model fit of Brenner et al.'s (2019) moderated mediation model and that of the modified TPB model. Hess and Tracey (2015) found that the decision-making process concerning help seeking did not vary across different mental health-related issues, namely depression/anxiety, career-related concerns, and substance use. Thus, in the present study, having measures of depression and anxiety are expected to account for help seeking intentions across problem domains among college students.

Anxiety. The Generalized Anxiety Disorder 7-Item (GAD-7; Spitzer et al., 2006; Appendix D) was used to assess students' current levels of psychological functioning. The GAD-7 has 7 items. Each item is rated on a 4-point Likert scale ranging from 0 (*not at all sure*) to 3 (*nearly everyday*). The GAD-7 has been validated with as ample of 2,740 adults in primary care settings (Spitzer et al., 2006) and has been reported to have acceptable to excellent reliabilities (Richardson et al., 2017). Cronbach's α for the GAD-7 was .91 in the current sample.

Depression. The Patient Health Questionnaire (PHQ-9; Kroenk et al., 2001; Appendix E) has 9 items. Each item is rated on a 4-point Likert scale ranging from 0 (*not at all sure*) to 3 (*nearly everyday*). The PHQ-9 has been validated with a sample of 6,000

individuals (Kroenke et al., 2001) and has been reported to have acceptable to excellent reliabilities (Richardson et al., 2017). Cronbach's α for the PHQ-9 was .88 in the current sample.

Attitude Toward Help Seeking

The Attitudes Towards Seeking Professional Psychological Help Scale-Short Form (ATSPPHS-SF; Fischer & Farina, 1995; Appendix F) is a 10-item measure rated on a 4-point Likert scale ranging from 0 (*disagree*) to 3 (*agree*). It assesses an individual's subjective perception of seeing a psychologist or seeking therapy. The measure was utilized as an index of subjective attitudes toward help seeking when testing the model fit of the TPB. A sample item from the measure is: "The idea of talking about problems with a psychologist strikes me as a poor way to get rid of emotional conflicts." Fischer and Farina (1995) found correlation between the ATSPPHS-SF and previous experience with therapy. Fischer and Turner (1970) reported a good internal consistency of .84 as well as test-retest reliability of .80 in college samples. Vogel et al. (2017) further utilized in a cross-cultural sample of college students from 10 countries and found adequate to excellent internal consistency coefficients. After reverse-scoring relevant items, a sum of all the item scores was computed to obtain a total score for each participant. In the current study, Cronbach's α for the ATSPPHS-SF was .77 in the current sample.

Public Stigma/Subjective Norms

The 5-item Ingroup Stigma (IGS) Subscale from the Barriers to Seeking Mental Health Counseling Scale (BMHCS; Shea et al., 2019; Appendix G) was utilized as a measure for public stigma and as a proxy of perceive norms when testing the model fit of the modified TPB model. In their original scale development study Shea et al. (2019)

validated the measure with diverse college student samples. A sample item the subscale is: “My family or significant other would judge me poorly if I disclose my problems to a mental health counselor.” Each item is rated on a 6-point Likert scale, ranging from 1 (*strongly disagree*) and 6 (*strongly agree*). The mean score was used. Cronbach’s α for the IGS was .70 in the current sample.

Perceived Behavioral Control

The 3-item Lack of Knowledge (LK) Subscale and the 4-item Lack of Access (LA) Subscale from the BMHCS (Shea et al., 2019; Appendix G) were used as indices for perceived behavioral control (i.e., one’s beliefs regarding whether he or she feels capable of seeking help when struggling with mental health concerns) when testing the model fit for the modified TPB model. A sample item from the LK subscale would be “I don’t know how to where to seek mental health counseling.” A sample item from the LA subscale would be “I don’t have the time to seek or stay in counseling.” Each item is rated on a 6-point Likert scale, ranging from 1 (*strongly disagree*) and 6 (*strongly agree*). Cronbach’s α for the LK subscale was .92 in the current sample. Cronbach’s α for the LA subscale was .87 in the current sample. A composite score was created by calculating the mean scores for the LK and LA subscales.

Help Seeking Intentions

The Mental Help Seeking Intentions Scale (MHSIS; Hammer & Spiker, 2018; Appendix H) was used to measure participants’ reported willingness to seek professional help when in need. The measure was a focal outcome variable in the current study. The measure consists of 3 items, which are rated on a 7-point Likert-type scale ranging from 1 (*extremely unlikely*) to 4 (*extremely likely*). Higher scores are indicative of higher levels

of help-seeking intentions. The instrument has been validated with a community sample of predominantly White women with mental health concerns, and internal consistency has been reported to range from .94 and .97 (Hammer & Spiker, 2018). Its variation has been used with a college student sample (Hess & Tracey, 2013) for whom the Cronbach's alphas ranged from .87 to .91. The MHSIS was found to have higher predictive validity than the Intentions to Seek Counseling Inventory (ISCI; Cash et al., 1975) and the General Help Seeking Questionnaire (GHSQ; Wilson et al., 2005) in terms of predicting actual help seeking behavior (Hammer & Spiker, 2018). The mean of all items was used to calculate total scores for participants. Cronbach's α for the MHSIS was .96 in the current sample.

Self-Stigma

The Self-Stigma of Seeking Help Scale (SSOSH; Vogel et al., 2006; Appendix I) was used to assess participants' levels of self-stigma toward seeking help. This is a 10-item scale rated on a 5-point Likert scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). Sample items are "I would feel inadequate if I went to a therapist for psychological help."; "Seeking psychological help would make me feel less intelligent."; and "It would make me feel inferior to ask a therapist for help." Vogel et al. (2006) reported internal consistency of .86 to 90 among college samples. In college samples across 10 countries, Vogel et al. (2017) similarly obtained high internal consistency estimates for the scale. After appropriate items were reverse scored, the sum of items was used to compute total scores. Cronbach's α for the SSOSH was .81.

Experiential Avoidance

The Acceptance and Action Questionnaire (AAQ-II; Bond et al., 2011; Appendix J) is a unidimensional measure of experiential avoidance which consists of 7 items. Each item is rated on a 5-point Likert scale ranging from 1 (*almost never*) to 5 (*almost always*). A sample item is "I'm afraid of my feelings." For analyses, a composite score was computed by summing responses to the 7 items. Higher scores mean higher levels of experiential avoidance. Bond et al. (2011) reported its internal consistency to be ranging from .78 and .88. In a most recent study Brenner et al. (2019) utilized the AAQ-II to find its internal consistency as .94 among a college sample. Cronbach's α for the AAQ-II was .91 for the current sample.

Procedure

The proposed study was based on a correlational design. The study was approved (STUDY00012624) by the Institutional Review Board at Arizona State University prior to the data collection. The data collection was conducted through an online platform setup on Qualtrics between January 2021 and April 2021. The data collection period corresponded to approximately one year into the COVID-19 pandemic. Upon accessing the study site set up on Qualtrics, participants were informed of the purpose and overview of the study, potential risks and benefits, and voluntary nature of participation (Appendix A). They were then asked to provide informed consents in the form of completing the entire online survey, which would take 15-20 minutes. Participants were offered Amazon Gift Cards ($5 per participant) for their participation. The gift cards were purchased using a $2,000 research grant that this project has received from the Arizona State University

Graduate and Professional Student Association. Upon completion of the online survey, they were automatically directed to a page showing an Amazon Gift Card code. To avoid any ethical/legal implications of collecting data regarding current psychological functioning or danger to self in particular, the Qualtrics survey was set up in a way that any participants who have endorsed Item 9, which assesses suicidal ideation, on the PHQ-9 (Kroenk et al., 2001; Appendix E) would be directed to a page listing crisis resources (e.g., National Suicide Prevention Lifeline and Crisis Text Line; Appendix K) at the end of their participation.

CHAPTER 4

RESULTS

Data Cleaning

The data were screened for missing data and tested for statistical assumptions, including univariate outliers and normality (Tabachnick & Fidell, 2019). A total of 15 cases were started but with blank responses to the actual survey. A total of 7 participants partially completed the demographic portion of the survey yet did not proceed with the remaining portion. Those cases were deleted prior to the data analyses. There were 10 cases for which more than 90% of responses were complete; the missingness was determined as happening at random given that Little's (1988) Test of Missing Completely at Random was not significant, $\chi^2(150, n = 295) = 170.965$, $p = .116$. The missing responses for the 10 cases were imputed by linear trend point (Martin & Bridgmon, 2012). The final data set included responses from 295 participants.

Descriptive Analysis

Means, standard deviations, and zero-order correlations for focal variables of the study are presented in Table 2. Regarding the observed mental health statuses of the participants, the average PHQ-9 or depression score in the overall sample was 10.13 (*SD* = 6.37) and the average GAD-7 or anxiety score in the overall sample was 10.36 (*SD* = 5.85). For the first-generation students, the average depression score was 10.42 (*SD* = 6.07) and the average anxiety score was 10.94 (*SD* = 5.94). For the continuing-generation students, the average depression score was 9.92 (*SD* = 6.58) and the average anxiety score was 9.95 (*SD* = 5.77). In the overall sample, 224 (75.9%) denied suicidal ideation in the past two weeks, 42 (14.2%) endorsed suicidal ideation on several days, 21 (7.1%)

reported suicidal ideation on over half the days, and 8 (2.7%) on nearly every day, according to responses for Item 9 of PHQ-9.

Table 2
Correlations, Means, and Standard Deviations of Study Variables

	1	2	3	4	5	6	7	8	9	*M*	*SD*
1. Depression	--									10.13	6.37
2. Anxiety	.738**	--								10.36	5.85
3. EA	.692**	.647**	--							22.57	9.76
4. Intention	.058	.055	.043	--						4.74	1.88
5. Attitude	.084	.098	.097	.696**	--					19.21	5.29
6. SS	.126*	.110	.116*	-.477**	-.599**	--				22.42	7.16
7. PS	.259**	.199**	.250**	-.176**	-.243**	.424**	--			2.15	1.02
8. LK	.172**	.136*	.149*	-.171**	.230*	.285**	.268**	--		2.23	1.41
9. LA	.384**	.333**	.365**	-.327**	-.267**	.282**	.323**	.520**	--	2.86	1.47

Note. Depression = Patient Health Questionnaire-9 scores. Anxiety = Generalized Anxiety Disorder-7 scores. EA = Experiential Avoidance. Intention = Intention to seek help. Attitude = Attitude toward help seeking. SS = Self-Stigma. PS = Public Stigma. LK = Lack of knowledge regarding mental health support. LA = Lack of access to mental health support.
* $p < .05$
** $p < .01$

A set of independent *t*-tests was conducted to examine mean differences between (a) first-generation students and continuing-generation students and (b) male students and female students. The difference in age was significant between first-generation students ($M = 23.98$, $SD = 6.31$) and continuing-generation students ($M = 22.25$, $SD = 5.58$), $t(293) = -2.478$, $p = .014$. The effect size for this analysis ($d = -.29$) exceeded Cohen's (1988) convention for a small effect. The first-generation students were older on average than the continuing-generation students. No other differences were found except for lack of access ($p > .05$); first-generation college students ($M = 3.08$, $SD = 1.53$) endorsed a higher level of perceived lack of access to mental health services than continuing-generation students ($M = 2.71$, $SD = 1.42$), $t(293) = -.214$, $p = .033$. The effect size for

this analysis (d = .25) represented a small effect.

Regarding gender differences in the focal variables, only the two categories, male and female, respectively were included in the following analyses due to a significantly low number of gender nonbinary or nonconforming participants (n = 9) as compared to the other two gender groups. There was a significant gender difference in reported anxiety levels, $t(284) = -5.11$, $p < .001$. Female students (M = 11.22, SD = 5.64) reported significantly higher anxiety symptoms than male students (M = 7.19, SD = 5.27) in the overall sample. The effect size for this analysis (d = 5.56) represented a large effect. Female students (M = 10.93, SD = 6.24) reported significantly higher depressive symptoms than male students (M = 6.94, SD = 5.42) in the overall sample, $t(284) = -4.64$, $p < .001$. The effect size for this analysis (d = 6.01) represented a large effect. Female students (M = 23.67, SD = 9.39) reported significantly higher levels of experiential avoidance than male students (M = 17.50, SD = 8.56) in the overall sample, $t(284) = -4.72$, $p < .001$. The effect size for this analysis (d = 9.21) represented a large effect. Female students (M = 5.00, SD = 1.78) reported significantly higher intention to seek help than male students (M = 3.84, SD = 1.98) in the overall sample, $t(284) = -4.48$, $p < .001$. The effect size for this analysis (d = 1.83) represented a large effect. Female students (M = 20.18, SD = 4.89) reported significantly more positive attitudes to seek help than male students (M = 15.61, SD = 5.27), $t(284) = -6.48$, $p < .001$. The effect size for this analysis (d = 4.98) represented a large effect. Male students (M = 26.17, SD = 7.80) reported significantly higher levels of self-stigma toward help seeking than female students (M = 21.36, SD = 6.70), $t(284) = 4.88$, $p < .001$. The effect size for this analysis (d = 6.95) represented a large effect. There were no significant differences between

female students and male students in public stigma, $t(284) = .87$, $p = .386$, $d = 1.03$, lack of knowledge, $t(284) = 1.52$, $p = .131$, $d = 1.41$, or lack of access, $t(284) = -1.03$, $p = .303$, $d = 1.47$.

Structural Equation Modeling

Structural equation modeling (SEM; Raykov & Marcoulides, 2000) was used to test (a) whether the data support the moderated mediation model (Brenner et al., 2019) as invariant across first-generation vs. continuing-generation students and (b) whether the data support the modified TPB with self-stigma, public stigma, and experiential avoidance as having more predictive validity than the original TPB with regard to helping seeking intentions among college students. SEM shares the same assumption of linear relationships among focal variables as classical statistical approaches such as regression analyses, ANOVA, and ANCOVA; however, it distinguishes itself in terms of explicitly accounting for errors of measurement to test model fit whereas the classical approaches would test model fit against raw data (Raykov & Marcoulides, 2000). Furthermore, SEM allows for flexibility in terms of assessing mediated or indirect effects across variables and for comparing models across groups, which is relevant for the present study. In the present study path analyses with observed variables were conducted and compared for best fit through Mplus Version 7.11 (Muthén & Muthén, 2012).

The model fit was assessed using four criteria, including model chi-square statistics, root mean square error of approximation (RMSEA; Browne & Cudeck, 1993), comparative fit index (CFI; Hu & Bentler, 1999), and the standardized root-mean-square residential (SMPR; Hu & Bentler, 1999). The RMSEA value of .08 or less, CFI value of .95 or above, and the SMPR value of .08 or less indicate better fit. Additionally, the

Akaike Information criterion (AIC; Akaike, 1974) and Bayesian information criterion (BIC; Schwartz, 1978) were reviewed to assess model fit. Lower values of the AIC and BIC indicate better model fit. Differences between model Chi-square statistics were assessed as a measure of model fit as well (Satorra & Bentler, 2010). All the parameter estimates reported are standardized coefficients.

To test the present study's first set of research hypotheses, Brenner's (2019) moderated mediation model was tested for measurement invariance between first-generation students and continuing-generation students. Maximum likelihood estimation with bootstrapped test statistics were used for robust procedures. The Mplus syntax for Model 14 (Stride et al., 2015) was applied for the study variables. This model consists of 1 predictor X, 1 mediator M, 1 moderator V (of Mediator-DV path), and 1 outcome Y. The model equation is expressed as follows:

$$Y = b0 + b1M + b2V + b3MV + cX$$

$$M = a0 + a1X$$

With the present study's variables, the equation would be expressed as follows:

$$Attitude = b0 + b1Self\text{-}Stigma + b2Experiential\ Avoidance + b3Self\text{-}Stigma*Experiential\ Avoidance + cPublic\ Stigma$$

$$Self\text{-}Stigma = a0 + a1Public\ Stigma$$

Multigroup analysis was conducted using the grouping command (i.e., first-generation students vs. continuing-generation students). The unconstrained model, partially unconstrained models, and constrained model were conducted sequentially to test the present study's first set of hypotheses. The *df* and χ^2 have been recorded as well as values of CFI, AIC, BIC, RMSEA, and SRMR for model comparisons. First, the

unconstrained model was run for paths between the focal variables to vary between the two groups. Among first-generation students, attitude toward help seeking was predicted by self-stigma (β = -.678, *SE* = .105, $p < .001$) but not by experiential avoidance (β = .081, *SE* = .182, $p = .658$) or public stigma (β = -.043, *SE* = .082, $p = .600$). The moderation effect of experiential avoidance on the path between self-stigma and attitude toward help seeking was not significant among first-generation students (β = .105, *SE* = .239, $p = .661$). Self-stigma was significantly predicted by public stigma (β = .437, *SE* = .065, $p < .001$). Among continuing-generation students, attitude toward help seeking was predicted by self-stigma (β = -.643, *SE* = .086, $p < .001$) but not by experiential avoidance (β = .037, *SE* = .159, $p = .815$) or by public stigma (β = -.033, *SE* = .088, $p = .710$). The moderation effect of experiential avoidance on the path between self-stigma and attitude toward help seeking was not significant among continuing-generation students (β = .181, *SE* = .192, $p = .344$). Self-stigma was significantly predicted by public stigma (β = .426, *SE* = .065, $p < .001$). The path diagram for the group of first-generation students is shown in Figure 4. The path diagram for the constrained model for the group of continuing-students is shown in Figure 5.

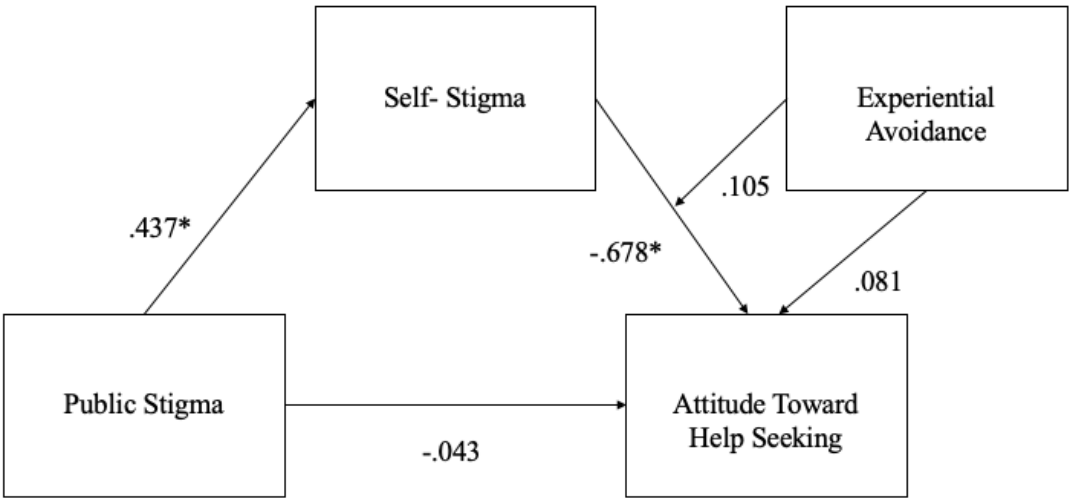

Figure 4. The Unconstrained Model for First-Generation Students (*$p < .001$).

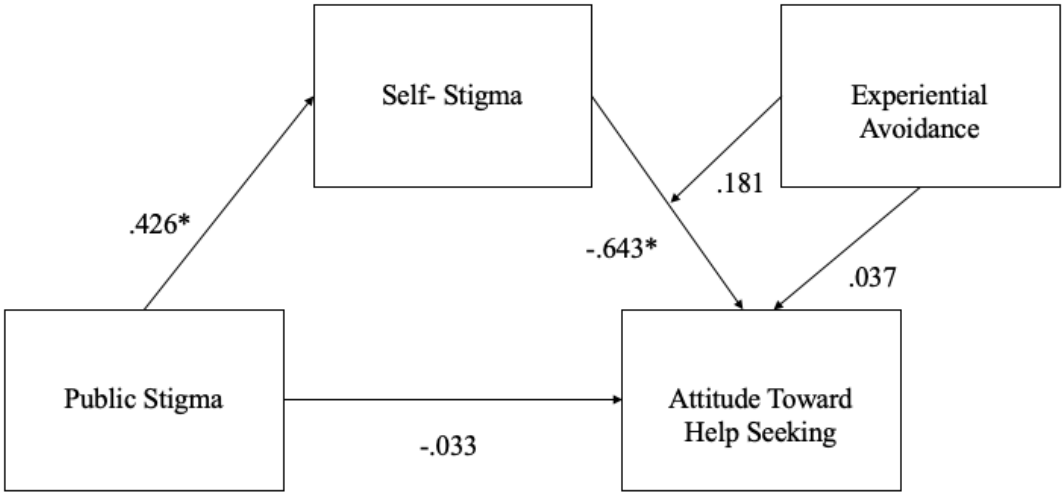

Figure 5. The Unconstrained Model for Continuing-Generation Students (*$p < .001$).

Partially unconstrained models were further conducted to test structural invariance of the moderated mediation model between first-generation students and continuing-generation students. The models conducted as well as associated model fit indices are presented in Table 3. Finally, the constrained model in which all the paths were fixed was also run to establish the baseline for model comparisons. Help seeking intention was directly predicted by self-stigma (β = -.655, *SE* = .078, $p < .001$) but not by experiential avoidance (β = .058, *SE* = .148, p= .694) or by public stigma (β = -.036, *SE* = .054, p = .507). The moderation effect of experiential avoidance on the path between self-stigma and attitude toward help seeking was also not significant in the current sample (β = .146, *SE* = .177, p = .408). Self-stigma was significantly predicted by public stigma (β = .424, *SE* = .057, $p < .001$). The path coefficients for this model are shown in Figure 6. The summary of goodness of fit indices for the models compared are shown in Table 3 on the next page. Given that experiential avoidance's hypothesized direct and moderating effects did not seem significant in all the models run and that the obtained goodness of fit indices for the models appeared to indicate poor fit (i.e., the RMSEA value greater than .08; the CFI value less than .95; the SRMR value greater than .08), an exploratory model without experiential avoidance and the interaction term was additionally run to achieve better model fit indices (see also Table 3).

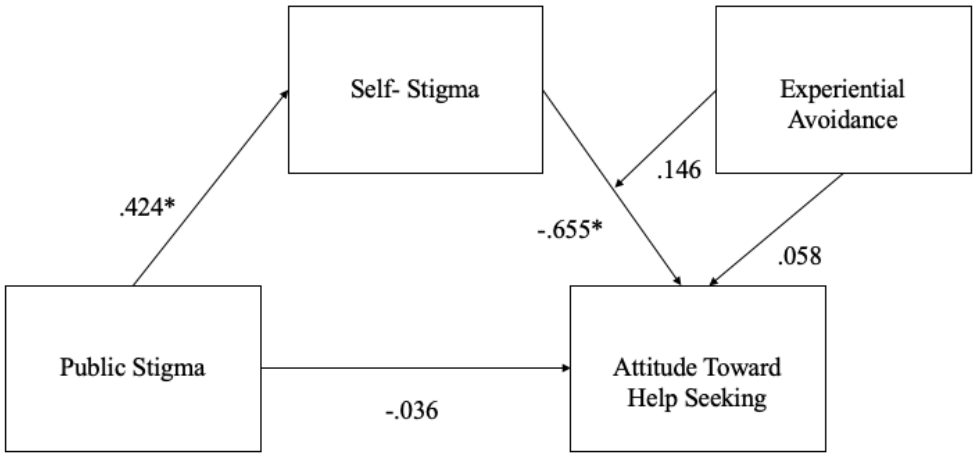

Figure 6. The Constrained Model (*$p < .001$).

Table 3
Goodness of Fit Indices for Models Comparing the Paths Between First-Generation Students and Continuing-Generation Students

Model	df	χ^2	CFI	AIC	BIC	RMSEA	SRMR
1. Unconstrained Model	6	440.353	.315	3640.080	3699.072	.701	.165
2. Model 1	8	442.426	.314	3638.154	3689.772	.607	.168
3. Model 2	10	442.769	.317	3634.497	3678.740	.542	.168
4. Model 3	9	442.811	.315	3636.538	3684.469	.572	.172
5. Model 4	10	442.899	.317	3634.626	3678.870	.542	.171
6. Model 5	10	442.975	.317	3634.703	3678.946	.542	.171
7. Constrained Model	2	430.694	.317	3630.945	3664.128	.852	.163
8. Exploratory Model	5	2.810	1.000	3642.680	3675.863	.000	.049

Note. Model 1 = the paths between Self-Stigma and Attitude, between Experiential Avoidance and Attitude, and between the interaction term (Self-Stigma*Experiential Avoidance) and Attitude were allowed to vary between the two groups. Model 2 = only the path between Self-Stigma and Attitude was free to vary between the two groups. Model 3 = the paths between Experiential Avoidance and Attitude and between the interaction term (Self-Stigma*Experiential Avoidance) and Attitude were allowed to vary between the two groups. Model 4 = the path between Experiential Avoidance and Attitude was allowed to vary between the two groups. Model 5 = the path between the interaction term and Attitude was allowed to vary between the two groups. Exploratory Model = Experiential Avoidance and the interaction term were removed.

The Satorra-Bentler Chi Square test (Satorra & Bentler, 2010) and comparison of fit indices were conducted to determine whether the difference between the constrained model and each of the unconstrained models would be significant. The results showed that although the difference between the unconstrained and constrained models appeared significant at the significance level of .05 yet the comparison of fit indices revealed that the constrained model overall showed a better fit. Therefore, the present study's hypotheses were not supported. More specifically, the path between self-stigma and help seeking did not differ between first-generation students and continuing-generation students. The direct and moderating paths of experiential avoidance also did not significantly differ across the two groups.

To test the present study's second hypothesis, another set of models were tested and compared. The basic model based on the TPB was run as attitude toward help seeking, subjective norms, and perceived behavioral control as predictors of help seeking intention. As expected, help seeking intention was significantly predicted by attitude toward help seeking (β = .672, *SE* = .034, $p < .001$) and perceived behavioral control (β = -.104, *SE* = .050, $p = .038$), but not by subjective norms (β = .023, *SE* = .044, $p = .603$). Each of the predictors were significantly correlated with one another as expected, $p < .001$. The coefficients for the paths are shown in Figure 7.

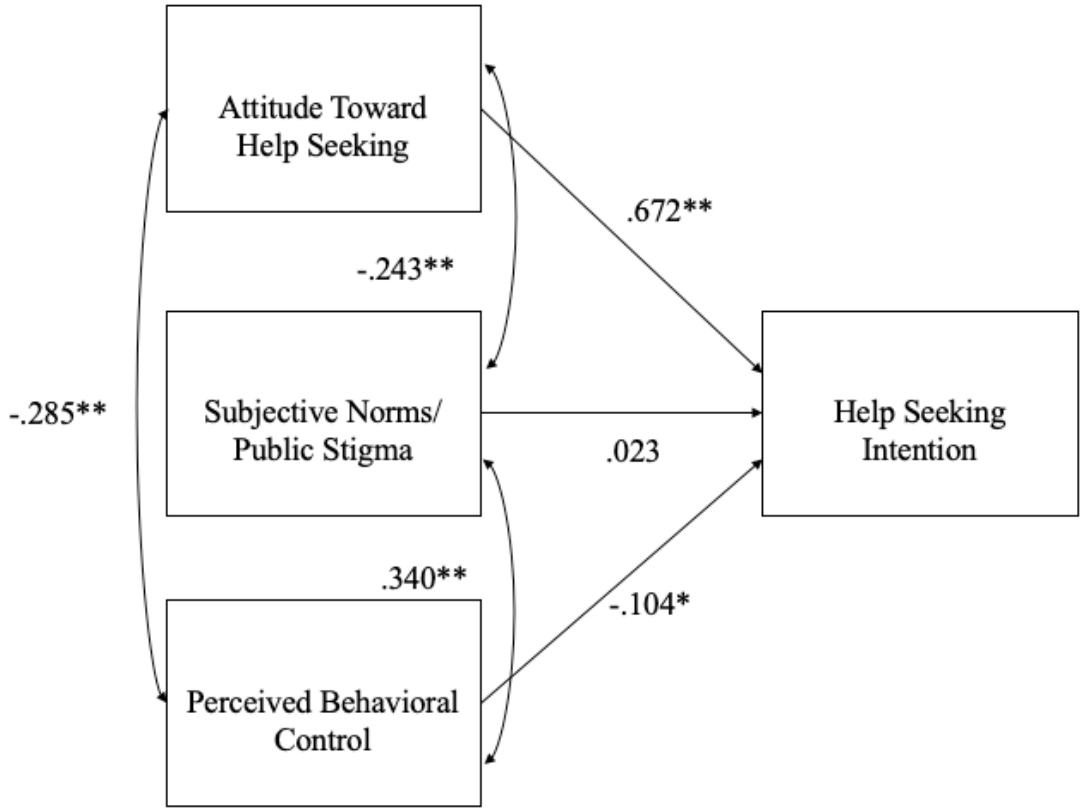

Figure 7. The Theory of Planned Behavior Model (*$p < .05$, **$p < .01$).

Next, the extended model was run to integrate Brenner's (2019) moderated mediation model into the TPB model. The standardized coefficients for the paths of the extended model are shown in Figure 8. Table 4 lists fit statistics for the two models, the TPB model and the extended model run.

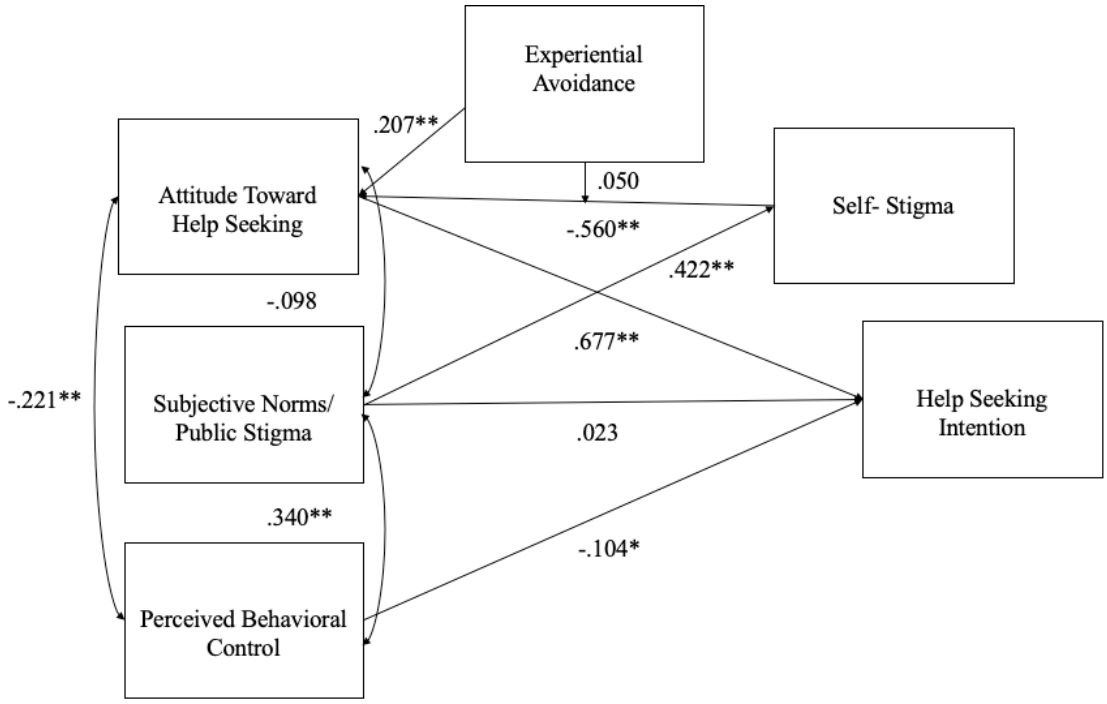

Figure 8. The Extended Model (*$p < .05$, **$p < .01$).

Table 4

Goodness of Fit Indices for the Theory of Planned Behavior Models

Model	df	χ^2	CFI	AIC	BIC	RMSEA	SRMR
Basic Model	3	200.885	1.000	4602.854	4654.471	.000	.000
Extended Model	8	64.553	.866	6434.366	6515.480	.155	.095

Help seeking intention was significantly predicted by attitude toward help seeking (β = .677, *SE* = .035, $p < .001$) and perceived behavioral (β = -.104, *SE* = .050, $p = .039$), but not by subjective norms or public stigma (β = .023, *SE* = .044, $p = .603$). Unlike the previous model, the association between attitude toward help seeking and subjective norms was insignificant (β = -.098, *SE* = .057, $p = .058$). The associations between attitude and perceive behavioral control (β = -.221, *SE* = .063, $p < .001$) and between subjective norms and perceived behavioral control (β = .340, *SE* = .058, $p < .001$) remained significant. Attitude toward help seeking was predicted by self-stigma (β = -.560, *SE* = .048, $p < .001$) and experiential avoidance (β = .207, *SE* =.047, $p <.001$) but not by subjective norms (β = .013, *SE* = .048, $p = .786$). The moderation effect of experiential avoidance on the path between self-stigma and attitude toward help seeking was not significant in the current sample (β = .050, *SE* = .050, $p = .290$). Self-stigma was significantly predicted by subjective norms or public stigma (β = .422, *SE* = .057, $p < .001$).

CHAPTER 5

DISCUSSION

The research questions for this study were as follows: (1) whether the moderated mediation model by Brenner et al. (2019) would hold invariant among first-generation and continuing-generation students and (2) whether the moderated mediation model could be integrated into a help seeking model based on the TPB (Ajzen, 1991) for a better model fit to predict help seeking intention among college students. For the first research question, I hypothesized that the relationship between self-stigma and help seeking would be stronger among first-generation students than among continuing-generation students. I also hypothesized that the direct and moderating effects of experiential avoidance would be greater for first-generation students. The results of the multigroup analysis did not support the hypotheses as there were not statistically significant differences in the constrained and various unconstrained models in which the paths of interest were tested between first-generation college students and continuing-generation college students. The preliminary analyses also did not reveal significant differences in current levels of psychological distress (i.e., PHQ-9 and/or GAD-7 scores), experiential avoidance, attitude toward help seeking, intention to help seeking, self-stigma, public stigma, and lack of knowledge regarding mental health services between first-generation and continuing-generation students.

Although the proposed group differences between first-generation students and continuing-generation students were not found in the structural equation models tested, the present study revealed a significant difference in perceived lack of access to mental health services between first-generation college students and continuing-generation

students. The LA subscale from the BMHCS (Shea et al., 2019; Appendix F) used to measure participants' perceived lack of access to mental health support assess participants' perception of time available, financial resources, and the volume of workload and obligations as related to their perceived accessibility of counseling support. The significant difference between first-generation students and continuing-generation students found in the present study is consistent with previous research indicating relative lack of time and resources to seek professional help among first-generation students (House et al., 2019). In the present study, lack of access was also found to be negatively correlated with both attitude toward help seeking and intention to seek help and positively with both public stigma and self-stigma toward help seeking. That is, those who reported higher levels of lack of access to mental health services had less positive attitude toward help seeking or less likelihood to intend to seek help. Consistently, those who reported higher levels of lack of access to mental health services endorsed higher levels of public stigma and self-stigma toward help seeking. Although the zero-order correlational findings of the present study would not allow for causal inferences, the TPB model tested in the present study also supports the links between perceived lack of access or behavioral control, public stigma or subjective norms, attitude toward help seeking, and help seeking intention among college students. Previous research further indicates the importance of addressing both physical and attitudinal obstacles toward help seeking (Andrade et al., 2013). To help address both the lack of perceived access to mental health and attitudinal obstacles toward help seeking, colleges and universities may consider providing free, confidential telehealth services (Hadler et al., 2021; Holtz et al., 2020) and/or outreach programming such as *Let's Talk* (Boone et al., 2011).

It is important to point out that contrary to Brenner et al.'s (2019) findings, the moderation effect of experiential avoidance was not significant in the current sample. The range and variance of the experiential avoidance variable in the present study did not reveal a restricted range that could have significantly impacted the results. The inconsistent findings between this study and Brenner et al.'s (2019) study may relate to the timing of data collection (i.e., before the COVID-19 pandemic and in the middle of the COVID-19 pandemic) as well as differences in college student samples across the two studies. More specifically, the sample of the present study was significantly more diverse than the sample of the previous study. First, the current sample of college students (M_{age} = 23.0, SD_{age} = 5.9) was significantly older than the sample of college students (M_{age} = 19.5, SD_{age} = 1.6) for Brenner et al.'s (2019) study, $t(528) = 8.84$, $p < .001$. Mahoney et al. (2015) reported that older individuals reported higher levels of mindfulness or ability to tolerate one's inner experience as it is (i.e., a psychological process that is effective in countering experiential avoidance) than younger individuals. It may be that levels of experiential avoidance reported in the current sample were less heightened than they were in the previous sample, resulting in the non-significant finding.

The current sample also appears to have significantly differed from Brenner et al.'s (2019) sample in terms of ethnic/racial backgrounds. White students constituted only 52.5% in the current sample compared to 74.2% in the previous study (Brenner et al., 2019). The present study further included significantly more Latinx students (19.7% vs. 6.3%), Asian American students (9.2% vs. 5.55%), and Black/African American students (4.7% vs. 2.5%) as well as multiracial students (8.5% vs. 3.8%), respectively. Research indicates that different constructs may serve as moderators of help seeking attitudes or

intention among ethnically and racially diverse individuals. For example, religious values or spirituality has been indicated as a culturally relevant factor in help seeking among Latinx individuals (Choi et al., 2019; Moreno & Cardemil, 2013). A meta analysis conducted by Sun et al. (2016) found that one's identification with own culture or enculturation was a significant predictor of help seeking among Asians and Asian Americans, but not for other ethnic/racial minorities. They further found that specific Asian cultural values or beliefs such as conformity to norms, collectivism, self-control, and humility were negatively associated with positive attitudes toward help seeking (Sun et al., 2016). Taylor and Kuo (2019) suggested that how stigma toward mental health in general, societal pressure and/or subjective norms linking help seeking as a sign of weakness and lack of religious faith, and lack of perceived accessibility as manifested as a lack of Black/African American mental health professionals could account for underutilization of mental health services by Black/African Americans. In light of such findings from previous research, examining Brenner et al.'s (2019) moderated mediation model in relation to race/ethnicity may be a potential future direction to help validate the model with diverse college students.

Another diversity factor of social class may have also played a role in the inconsistent findings between the present study and Brenner et al.'s (2019) study. In the present study self-reported SES by participants revealed a significant range; while the majority (75.3%) identified themselves as from middle class, noticeable numbers of students were from lower class (18%) and from upper class (6.1%). Given social class and experience of classism have been reported as significantly associated with public stigma toward help seeking, which in turn predict self-stigma, (Choi & Miller, 2018),

future research may shed light on nuanced differences in help seeking and associated predictors (i.e., public stigma, self-stigma, attitude toward help seeking) among students from different SES backgrounds.

Interestingly, the present study found significant gender differences in many of the focal variables. Experiential avoidance, which is a mechanism contributing to psychological inflexibility (Hayes & Smith, 2005), was higher for female students than for male students. Consistent which the ACT's theoretical premise that experiential avoidance contributes to psychological difficulties (Hayes & Smith, 2005), female students also reported significantly higher levels of anxiety and depressive symptoms compared to male students. Female students reported more positive attitudes toward help seeking as well as higher levels of intention to seek help compared to male students. Another significant gender difference was observed in self-stigma; male students reported significantly higher levels of self-stigma toward help seeking than female students. The underutilization of mental health services and less positive attitudes toward help seeking held by men compared to women regardless of age and race/ethnicity have been documented in previous research (e.g., Nam et al., 2010; Sagar-Ouriaghli et al., 2019; Wendt & Shafer, 2016). Addis and Mahalk (2003) suggested that such gender differences can be attributed to "a mismatch between available services and traditional masculine roles emphasizing self-reliance, emotional control, and power" (p. 12). The role of masculinity and/or gender role conflict may be another possible moderator to consider in further enhancing Brenner et al.'s (2019) help seeking model.

For the second research question, I hypothesized that compared to the original TPB model, the expanded TPB model would better fit the data to explain help seeking

intentions among college students. The fit statistics obtained did not support the hypothesis, indicating that the TPB model had a better fit as indicated by the values of CFI, AIC, BIC, RMSEA, and SRMR. In the TPB model, all but one path were significant as predicted by the TPB (Ajzen, 1991; Ajzen & Fishbein, 1980). Specifically, attitude toward help seeking, public stigma/subjective norms, and perceived behavioral control were significantly associated with each other. Attitude toward help seeking and perceived behavioral control both significantly predicted help seeking intention. Public stigma, which was used as a proxy for subjective norms, did not significantly predict help seeking intention. The lack of the significant relationship between subjective norms and intention in the present study may be attributed to error in measurement in subjective norms. The present study could have utilized a more sophisticated measure for subjective norms, encompassing both injunctive and descriptive norms (Ajzen, 2006), in assessing participants' subjective norms toward help seeking to provide accurate results.

The present study found the significant findings in the overall sample consistent with the existing literature on mental health crises on US colleges and universities (American College Health Association, 2018). The data from the present study highlighted significant distress being experienced by some college students. The average PHQ-9 score for the current sample was 10.13, which falls in the range of moderate severity (Kroenke et al., 2001). In the current sample, 224 (75.9%) denied suicidal ideation in the past two weeks, 42 (14.2%) endorsed suicidal ideation on several days, 21 (7.1%) reported suicidal ideation on over half the days, and 8 (2.7%) on nearly every day, according to participants' responses for Item 9 of PHQ-9. That is, a total of 24% of the students who participated in the study had experienced suicidal ideation in the past two

weeks at the time of data collection (a pop-up message listing crisis mental health resources was shown for all who endorsed Item 9 of PHQ-9 assessing for the presence and frequency of suicidal ideation). The average GAD-7 score for the current sample was 10.36, which falls in the range of moderate severity (Spitzer et al., 2006). The data confirm findings of previous research documenting the presence of significant psychological distress among college students in the US (American College Health Association, 2018).

Limitations

One major limitation of the current study is small sample size. Although the study's final sample size (n = 295) was deemed sufficient to yield an adequate fitting model per the priori power analysis conducted, a larger sample could have provided more power to detect effects being examined. Another limitation is related to the cross-sectional nature of the present study failing to account for the COVID-19 pandemic and associated changes in mental health and/or access to mental health services. Previous research suggested that college students have experienced increased levels of stress and anxiety among college students (e.g., Son et al., 2020; Wang et al., 2020). Moving forward, accounting for changes in college students' mental health and associated constructs through research based on longitudinal designs could contribute to an increased and updated understanding of help seeking among college students.

The other major limitation that needs to be acknowledged is reliance on participants' self-perceived definitions of who constitute first-generation college students. In other words, the current study lacked precision in operationalizing first-generation college students at the time of data collection. The lack of consensus on how to define

first-generation students has been raised by Toutkoushian et al. (2018), who have found that definitions varying in their specification on what counts as college education and the number of parents having to meet the educational attainment requirement are still used in higher education research. Their study has further indicated that the level of inclusivity in a given definition of first-generation college students has significant effects on outcomes/findings (Toutkoushian et al., 2018). The demographic data of the current study indicate that only 109 (36.9%) participants reported the highest educational attainment by a parent as full college education (i.e., bachelor's degree). This indicates that among 174 participants who reported that they were not first-generation college students, some could technically qualify as first-generation college students if the current study were to employ a definition of first-generation college students as someone neither of whose parents had obtained a bachelor's degree in a four-year college/university. More clarity and inclusivity in the operationalization of the term first-generation college students would likely have facilitated data collection and would have captured a more accurate picture of potential differences in the study's focal variables between first-generation vs. continuing-generation college students.

Future Directions

Future research may continue to apply and test the proposed model(s) (Brenner et al., 2019) with samples from diverse student populations, including but not limited to graduate students, ethnic-racial minority students, LGBTQIA+ students, veteran/ROTC students, student athletes, and international students. Another variable that may help enhance the proposed model(s) is belongingness to university/in-group identity. Kearns et al. (2015) has found stigma was higher among students who identified with their

universities more than those who identified less with their universities. With adjustment to college environments particularly challenging among first-generation students (House et al., 2019), the role of one's belongingness to college warrants more investigation and could be added as another mediated moderator in Brenner et al.'s (2019) model.

Researchers may investigate the role of other aspects of psychological flexibility (Hayes & Smith, 2005) in promoting or hindering help seeking among college students. For example, Lannin et al. (2020) found that those who strongly identify with *self-transcendence* values had less public stigma as well as less self-stigma. In other words, when individuals reported prioritizing others' needs and well-being, they were less likely to hold a negative view of help seeking. In ACT values are described as "the masters you serve" (Hayes & Smith, 2005, p. 165) being the compass guiding one's behavior. Future research could further investigate how some of the processes of psychological flexibility— acceptance, cognitive defusion, mindfulness, self as context, values, and committed action— may play a role in not just promoting psychological well-being but also proactive help seeking behavior.

Future research may also explore how help seeking among college students has changed in relation to the increased availability and accessibility of telehealth services. Due to the outbreak of the COVID-19 pandemic in 2020, the world has seen an exponential growth in telehealth mental health services. In a national survey of 2,619 licensed psychologists, Peirce et al. (2021) found approximately 85% of licensed psychologists provide telehealth services to date vs. 7% in the pre-pandemic time. Similarly, the 2021 American Psychological Association's (APA) COVID-19 Practitioner Survey revealed that the vast majority or 96% of psychologists provide some

variation of telehealth services and that over 90% of the psychologists anticipating the continued provision of telehealth services even after the pandemic (APA, 2021). Consistent with the general trend of increasing availability of telehealth mental health services in the broader US society, college students appear to be increasingly seeing telehealth support as accessible and beneficial (Hadler et al., 2021; Holtz et al., 2020). Telehealth applications such as MySSP (https://myssp.app/ca/home) by LifeWorks Inc. and TimelyMD (https://timely.md/) by Timely Telehealth, LLC have established partnerships with US colleges/universities to help make mental health services available to students. It would be an important area of research to examine and describe help seeking attitudes, intentions, and behavior among college student populations in this new era of telehealth mental health services to inform ways universities/university counseling centers could provide interventions and prevention not just in traditional, in-person individual and/or group therapy but also in innovative ways. Specifically, research could focus on clarifying how the increasing availability of telehealth mental health support on campus may help mitigate the effect of public stigma toward help seeking on self-stigma toward help seeking and/or the effect of self-stigma on help seeking attitudes, intentions, or behavior among college students.

Conclusion

The results of the study did not support the hypotheses concerning differences in help seeking as predicted by Brenner et al.'s (2019) moderated mediation model between first-generation college students and continuing-generation college students. The present study also did not find the moderation effect of experiential avoidance on the relationship between self-stigma and help seeking attitude among the current sample. There were

several notable differences in the timing of data collection (i.e., before and after the COVID-19 pandemic) and in the participants' demographic characteristics between the present study and previous study to which the inconsistent findings could be attributed. The results of the study confirmed the widely documented prevalence of mental health issues among college students and provided some interesting contrasts with previous research, indicating possible differences in help seeking by age, gender, race/ethnicity, and social class. The results of the study further showed some evidence that the TPB (Ajzen, 1991) could be further expanded to integrate moderators such as self-stigma toward help seeking and experiential avoidance to better account for help seeking intention among college students. Future research should focus on further investigating how diversity factors such as age, gender, race/ethnicity, and social class could figure into the help seeking models tested in this study to better understand help seeking among diverse college students on US campuses. Such understanding in turn could help mental health professionals reach out to diverse college students to help normalize help seeking and provide both interventions and prevention.

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APPENDIX A

IRB APPROVAL

IRB Approval

ASU Knowledge Enterprise Development

APPROVAL: EXPEDITED REVIEW

James Bludworth
CISA: Counseling and Counseling Psychology
480/965-6956
James.Bludworth@asu.edu

Dear James Bludworth:

On 10/19/2020 the ASU IRB reviewed the following protocol:

Type of Review:	Initial Study
Title:	The role of experiential avoidance in predicting help seeking behavior among college students
Investigator:	James Bludworth
IRB ID:	STUDY00012624
Category of review:	(7)(a) Behavioral research
Funding:	Name: Arizona State University (ASU)
Grant Title:	
Grant ID:	
Documents Reviewed:	• AAQ-II.pdf, Category: Measures (Survey questions/Interview questions /interview guides/focus group questions); • Aoyagi Dissertation IRB Protocol.docx, Category: IRB Protocol; • Aoyagi K. Dissertation Informed Consent.pdf, Category: Consent Form; • Aoyagi, K. Demographic Items.pdf, Category: Measures (Survey questions/Interview questions /interview guides/focus group questions); • ASU Survey Review Approval.pdf, Category: Other; • ATSPPHS-SF.pdf, Category: Measures (Survey questions/Interview questions /interview guides/focus group questions); • BMHC.pdf, Category: Measures (Survey questions/Interview questions /interview guides/focus group questions); • Crisis Resource List, Category: Resource list;

	• Dissertation Flyer.pdf, Category: Recruitment Materials; • GAD-7.pdf, Category: Measures (Survey questions/Interview questions /interview guides/focus group questions); • General Resources List (for all participants), Category: Resource list; • GPSA Funding Offer.pdf, Category: Sponsor Attachment; • MHSIS.pdf, Category: Measures (Survey questions/Interview questions /interview guides/focus group questions); • PHQ-9.pdf, Category: Measures (Survey questions/Interview questions /interview guides/focus group questions); • Recruitment Email.pdf, Category: Recruitment Materials; • SSOSH.pdf, Category: Measures (Survey questions/Interview questions /interview guides/focus group questions);

The IRB approved the protocol from 10/19/2020 to 10/18/2021 inclusive. Three weeks before 10/18/2021 you are to submit a completed Continuing Review application and required attachments to request continuing approval or closure.

If continuing review approval is not granted before the expiration date of 10/18/2021 approval of this protocol expires on that date. When consent is appropriate, you must use final, watermarked versions available under the "Documents" tab in ERA-IRB.

In conducting this protocol you are required to follow the requirements listed in the INVESTIGATOR MANUAL (HRP-103).

Sincerely,

IRB Administrator

cc: Keiko Aoyagi
Keiko Aoyagi

APPENDIX B

INFORMED CONSENT

Informed Consent

Greetings! My name is Keiko Aoyagi and I am a graduate student at Arizona State University (ASU) under the supervision of Dr. James Bludworth and Dr. Frank Dillon. I am conducting a study to better understand current US college students' attitudes toward mental health and help seeking. Your participation would involve completing an online survey, which takes approximately 15-20 minutes to finish. You will be compensated with a $5 Amazon gift card at the completion of your participation.

We invite you to participate in this study if you are:
a) 18 years of age or older;
b) a U.S. citizen and/or permanent resident;
c) a currently enrolled full-time undergraduate student;
d) a first-generation student (i.e., the first to attend college in your immediate family); and
e) residing and attending 4-year colleges and universities located in the United States.

Your participation in this study is voluntary, and you can withdraw from this study at any time without penalty. There are no foreseeable risks to your participation. Once your responses are collected through an encrypted online survey website, you will be assigned a random ID number so that your responses remain anonymous. The results of this study may be used in reports, presentations, or publications, but your name will never be used. The results will only be shared in the aggregate form.

If you have any questions regarding this study, please contact me at Keiko.Aoyagi@asu.edu or Dr. James Bludworth at James.Bludworth@asu.edu. If you have any concerns about your rights as a participant in this study, or if you feel you have been placed at risk, you can contact the Chair of the Human Subjects Institutional Review Board, through the ASU Office of Research Integrity and Assurance at (480) 965-6788. Alternatively, you can email them at research.integrity@asu.edu.

By clicking the "Yes" button below, it will be considered that you have thoroughly read this letter and have provided your consent to participate in the study. Thank you so much for your time and cooperation!

APPENDIX C

DEMOGRAPHIC ITEMS

Demographic Items

- What is your age?
- What is your gender?
    - Male
    - Female
    - Transgender
    - Nonbinary
    - Questioning
    - Prefer not to answer
- What is your sexual orientation?
    - Heterosexual
    - Gay
    - Lesbian
    - Bisexual
    - Pansexual
    - Questioning
    - Prefer not to answer
- What is your racial/ethnic background?
    - White
    - Latinx/Hispanic
    - Black/African American
    - Asian American
    - Native American
    - Native Hawaiian or Pacific Islander
    - Multiracial
        - Please describe here as much as you are comfortable with sharing (Text entry)
    - Prefer not to answer
- Generational Status
    - Did your parents or grandparents immigrate to the US from different countries?
        - Yes
            - What is your generational status?
                - 2nd Generation
                - 3rd Generation
                - Other
                    - Please describe your generational status (Text entry)
                - Prefer not to answer
        - No
        - Prefer not to answer
- Which socioeconomic status you think most accurately reflects one you grew up in?
    - Lower

    - Middle
    - Upper
    - Prefer not to answer
- What year (per the number of credits you have already taken) are you in currently?
    - Freshman
    - Sophomore
    - Junior
    - Senior
- What is your field of studies? Select one that most accurately captures your major(s).
    - Natural Sciences
    - Social Sciences
    - Arts & Humanities
    - Interdisciplinary
    - Undecided
    - Prefer not to answer
- Are you a first-generation student or the first to go to 4-year college/university in your immediate family?
    - Yes
    - No
- What is the highest education attained by your parents or guardians?
    - No High School
    - High School Diploma or GED
    - Some Community College
    - Community College/Associate Degree
    - Some College
    - Professional Certificate or Other Specialized Training
    - Not sure/Prefer not to answer
- Are you an online college student?
    - Yes
    - No
        - Are you currently taking ALL your classes online due to the COVID-19 pandemic?
- Are you an in-state (i.e., attending college or university in the state of your residence)?
    - Yes
    - No
    - Prefer not to answer

APPENDIX D

THE GENERALIZED ANXIETY DISORDER-7 ITEMS

The Generalized Anxiety Disorder-7 Items (GAD-7)
(Spitzer et al., 2006)

Over the last 2 weeks, how often have you been bothered by the following problems?

0	1	2	3
Not at all sure	Several days	Over half the days	Nearly everyday

1. Feeling nervous, anxious, or on edge

2. Not being able to stop or control worrying

3. Worrying too much about different things

4. Trouble relaxing

5. Being so restless that it's hard to sit still

6. Becoming easily annoyed or irritable

7. Feeling afraid as if something awful might happen

If you checked off any problems, how difficult have these made it for you to do your work, take care of things at home, or get along with other people?

Not difficult at all _____

Somewhat difficult _____

Very difficult _____

Extremely difficult _____

APPENDIX E

THE PATIENT HEALTH QUESTIONNAIRE-9

The Patient Health Questionnaire-9 (PHQ-9)
(Kroenke et al., 2001)

Over the last 2 weeks, how often have you been bothered by any of the following problems?

0	1	2	3
Not at all sure	Several days	Over half the days	Nearly everyday

1. Little interest or pleasure in doing things

2. Feeling down, depressed, or hopeless

3. Trouble falling or staying asleep, or sleeping too much

4. Feeling tired or having little energy

5. Poor appetite or overeating

6. Feeling bad about yourself— or that you are a failure or have let yourself or your family down

7. Trouble concentrating on things, such as reading the newspaper or watching television

8. Moving or speaking so slowly that other people could have noticed. Or the opposite— being so fidgety or restless that you have been moving around a lot more than usual.

9. Thoughts that you would be better off dead, or off hurting yourself.

If you checked off any problems, how difficult have these made it for you to do your work, take care of things at home, or get along with other people?

Not difficult at all _____

Not difficult at all _____

Somewhat difficult _____

Very difficult _____

Extremely difficult _____

APPENDIX F

THE ATTITUDES TOWARDS SEEKING PROFESSIOANL PSYCHOLOGICAL HELP SCALE-SHORT FORM

The Attitudes Towards Seeking Professional Psychological Help Scale-Short Form (ATSPPHS-SF; Fischer & Farina, 1995)

Read each statement carefully and indicate your degree of agreement using the scale below. In responding, please be completely candid.

0	1	2	3
Disagree	Partly disagree	Partly agree	Agree

1. If I believed I was having a mental breakdown, my first inclination would be to get professional attention.
2. The idea of talking about problems with a psychologist strikes me as a poor way to get rid of emotional conflicts.
3. If I were experiencing a serious emotional crisis at this point in my life, I would be confident that I could find relief in psychotherapy.
4. There is something admirable in the attitude of a person who is willing to cope with his or her conflicts and fears without resorting to professional help.
5. I would want to get psychological help if I were worries or upset for a long period of time.
6. I might want to have psychological counseling in the future.
7. A person with an emotional problem is not likely to solve it alone; he or she is likely to solve it with professional help.
8. Considering the time and expense involved in psychotherapy, it would have doubtful value fro a person like me.
9. A person should work out his or her own problems; getting psychological counseling would be a last resort.
10. Personal and emotional troubles, like many things, tend to work out by themselves.

APPENDIX G

THE BARRIERS TO SEEKING MENTAL HEALTH COUNSELING SCALE

The Barriers to Seeking Mental Health Counseling Scale (BMHC; Shea, Wong, Nguyen, & Gonzalez, 2019)

Read each statement carefully and indicate your degree of agreement using the scale below. In responding, please be completely candid.

Strongly Disagree 1 2 3 4 5 6 Strongly Agree

Ingroup Stigma (IGS)

1. My family or significant other would judge me poorly if I disclose my problems to a mental health counselor.
2. Most people in my cultural group would not approve of my decision to seek mental health counseling.
3. My friends would think less of me if they knew I sought mental health counseling.
4. Seeking mental health counseling would bring shame to my family.
5. My family or significant other would not see me negatively if I share my problems with a mental health counselor.

Lack of Knowledge (LK)

1. I don't know how to where to seek mental health counseling.
2. I don't know what kind of mental health counseling services are available.
3. I don't know how mental health counseling works.

Lack of Access (LA)

1. I don't have the time to seek or stay in counseling.
2. I have no financial means (e.g., insurance, money) to afford mental health counseling services.
3. I have too many responsibilities to other people (e.g., family, friends, significant other) that would prevent me from seeking mental health counseling.
4. I have too many academic or work-related obligations that would deter me from talking to a mental health counselor.

APPENDIX H

THE MENTAL HELP SEEKING INTENTIONS SCALE (MHSIS)

The Mental Help Seeking Intentions Scale (MHSIS)

(Cash et al., 1975)

Extremely Unlikely	1	2	3	4	5	6	7	Extremely Likely

For the purposes of this survey, “mental health professionals” include psychologists, psychiatrists, clinical social workers, and counselors. Likewise, “mental health concerns” include issues ranging from personal difficulties (e.g., loss of a loved one) to mental illness (e.g., anxiety, depression). Please mark the box that best represents your opinion.

1. If I had a mental health concern, I would intend to seek help from a mental health professional.

2. If I had a mental health concern, I would try to seek help from a mental health professional.

3. If I had a mental health concern, I would plan to seek help from a mental health professional.

APPENDIX I

THE SELF-STIGMA OF SEEKING HELP SCALE

The Self-Stigma of Seeking Help Scale
(SSOSH; Vogel et al., 2006)

Strongly Disagree 1 2 3 4 5 Strongly Agree

1. I would feel inadequate if I went to a therapist for psychological help.
2. My self-confidence would NOT be threatened if I sought professional help.
3. Seeking psychological help would make me feel less intelligent.
4. My self-esteem would increase if I talked to a therapist.
5. My view of myself would not change just because I made the choice to see a therapist.
6. It would make me feel inferior to ask a therapist for help.
7. I would feel okay about myself if I made the choice to seek professional help.
8. If I went to a therapist, I would be less satisfied with myself.
9. My self-confidence would remain the same if I sought help for a problem I could not solve.
10. I would feel worse about myself if I could not solve my own problems.

APPENDIX J

THE ACCEPTANCE AND ACTION QUESTIONNAIRE

The Acceptance and Action Questionnaire (AAQ-II; Bond et al., 2011)

Below you will find a list of statements. Please rate how true each statement is for you by using the scale below to fill in your circle.

1	2	3	4	5	6	7
Never true	Very seldom true	Seldom true	Sometimes true	Frequently true	Almost always true	Always true

1. My painful experiences and memories make it difficult for me to live a life that I would value.
2. I'm afraid of my feelings.
3. I worry about not being able to control my worries and feelings.
4. My painful memories prevent me from having a fulfilling life.
5. Emotions cause problems in my life.
6. It seems like most people are handling their lives better than I am.
7. Worries get in the way of my success.

APPENDIX K

MENTAL HEALTH RESOURCES

Resources List (Ver. 10/05/20)

Thank you for your participation in this study. If you are experiencing mental health issues such as depression and anxiety, know that there are resources available. Below are examples of such resources.

University Counseling Center
Chances are that your college/university offers counseling services on campus or via telehealth. For ASU students, ASU Counseling Services provide free consultation and affordable individual and group mental health services: https://eoss.asu.edu/counseling

Hotlines
If you are facing a challenging time and would like to talk to someone, there are crisis hotlines available at no cost.

Suicide Prevention Lifeline (https://suicidepreventionlifeline.org/): 1-800-273-8255
Crisis Text Line (https://www.crisistextline.org/): Text HOME to 741741

Other Useful Websites
If you are interested in learning more about your mental health and how to take better care of it, you can find a plenty of good resources online. Below are several examples.

HelpGuide: https://www.helpguide.org/

The Greater Good Science Center at the University of California, Berkeley: https://ggia.berkeley.edu/

Free Guided Meditations by UCLA Mindful Awareness Research Center: https://www.uclahealth.org/marc/mindful-meditations

Displayed Only To Those Who Endorsed Item 9 of PHQ-9
If you are feeling hopeless and suicidal, know that help is available. Below are resources you can utilize for free.

Suicide Prevention Lifeline (https://suicidepreventionlifeline.org/): 1-800-273-8255
Crisis Text Line (https://www.crisistextline.org/): Text HOME to 741741