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BARRIERS TO MENTAL HEALTH TREATMENT IN FIRST- AND LATER-GENERATION IMMIGRANT-ORIGIN EMERGING ADULTS: A MIXED METHODS INVESTIGATION

A dissertation submitted in partial fulfillment

of the requirements for the degree of

DOCTOR OF PHILOSOPHY

to the faculty of the

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of

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at

ST. JOHN'S UNIVERSITY

New York

by

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Date Submitted _____

Date Approved _____

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ABSTRACT

BARRIERS TO MENTAL HEALTH TREATMENT IN FIRST- AND LATER-GENERATION IMMIGRANT-ORIGIN EMERGING ADULTS: A MIXED METHODS INVESTIGATION

Ryan Salim

Emerging adulthood (ages 18-29) is a time where youth face many challenges as they work towards assuming the full-time roles of adulthood. For first- and latergeneration youth, the challenges during this time can take unique forms. The current study sought to address limitations in the extant immigrant mental health literature by exploring the barriers that prevent first- and later-generation emerging adults in the U.S. from accessing mental health treatment. This study did so using a concurrent mixedmethods paradigm in the form of an online survey which collected both qualitative and quantitative data. Qualitative analysis consisted of examining themes that arose in participants' description of cultural stigma around seeking mental health treatment or having mental health problems, as well as knowledge that first- and later-generation immigrant-origin emerging adults lack about mental health treatment. Quantitative data consisted of self-report measures of stigma, depressive symptoms, and demographic characteristics. Results of qualitative analysis yielded several overarching domains for both knowledge- and stigma-related concerns.

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I would like to thank Dr. Andrea Bergman for her support and flexibility throughout the whole process of this project and her help in enabling me to learn about the richness of qualitative analysis. My research assistant, Manuel Orellana, for help with data collection and codebook development. My fiancée, ellen Wuest, for her love and support through this entire process. And, last but not least, my mom, whose unwavering support has empowered me to always pursue my dreams, grow, and learn, throughout both my academic career and my life. Thank you all.

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Introduction

Emerging adulthood, defined as the period between ages 18-29, is a distinct developmental period where youth experience uncertainty, have potential for new experiences and new choices, and experience more autonomy and freedom (Arnett, 2000). This period can be overwhelming for individuals who find themselves unable to successfully manage the challenges they face or who have not decided on their long-term career decisions or life goals (Arnett, 2007). Concordant with this, a survey of 1,029 emerging adult college students found that 72% of participants described this period as stressful, 56% reported often feeling anxious, and 32% reported often feeling depressed (Arnett & Schwab, 2012). Evidence further suggests emerging adults are at higher risk for developing mental health problems. Data from several large-scale epidemiological studies similarly suggests that emerging adults are at increased risk for anxiety, mood, substance use, and impulse control disorders, with some estimates finding that 35% of emerging adults meet criteria for at least one disorder (Kessler & Wang, 2008; Auerbach, et al., 2018; Twenge, et al., 2019). However, it should be noted that the risk of mental health problems is not equal amongst all groups of emerging adults. Immigrant-origin emerging adults, in particular, face problems related to mental health, specifically when seeking mental health treatment.

First- and Second-Generation Immigrant-Origin Emerging Adults

First-generation (e.g., persons who immigrate to the U.S.), second- (e.g., persons born in the U.S. to immigrant parents), and later-generation (e.g., persons with parents born in the U.S. but grandparents who immigrated to the U.S.) immigrant-origin individuals are a growing portion of the U.S. population (Camarota & Ziegler, 2017; Pew Research Center, 2013). These individuals face a different version of emerging adulthood than their non-immigrant-origin peers. Importantly, they are forced to navigate two sets of expectations, namely adapting to an outside culture (e.g., acculturation) while also facing pressure to learn and adhere to their cultural norms and practices (e.g., enculturation) (Katsiaficas, Suarez-Orozco, & Dias, 2015). Moreover, for these individuals, emerging adulthood is a time to explore ethnic identity and determine which groups they belong to, a task which is critical to their psychological well-being (Chacko, 2018). Most youth are able to find ways to incorporate aspects of both U.S. culture and their home culture into their identities, and thus fare well; however, those that are unable to do so have been found to experience increased psychological distress (Sirin, Bikmen, Mir, Fine, Zaal, & Katsiaficas, 2008).

First- and Second-Generation Immigrant-Origin Emerging Adults and Mental Health

The literature on the mental health of first- and second-generation immigrantorigin youth is currently limited. What information there is often comes from the wider literature on immigrant mental health. Previously, research supported the idea that immigrants are generally healthier than native counterparts, known as the "healthy migrant paradox," or "healthy immigrant effect," which found support in many epidemiological and medical studies (i.e., Alegria, et al., 2008; Lau et al., 2013; Singh & Hiatt, 2006; Singh, Yu, & Kogan, 2013). In contrast to this line of thinking, many studies demonstrate that persons from immigrant groups experience mental health problems at equal or higher rates than non-immigrants, though this research is limited. Estimates for the prevalence of any mental health problem amongst various immigrant groups vary widely, ranging from 1.91-30.2% (Alegria, et al., 2007; Alegria, et al., 2008; Williams, et al., 2007; Jackson, et al., 2007; Abe-Kim, et al., 2007).

A Contextual View of Mental Health

More recent research on immigrant mental health focuses on contextual factors affecting mental health. Immigration is a complex process from beginning to end, filled with stressors that may negatively impact a person's mental health. Kirmayer and colleagues (2015), identified different kinds of stressors at pre-migration (i.e., disruption of education, family separation), mid-migration (i.e., exposure to violence, uncertainty about the future), and post-migration (i.e., discrimination, social exclusion). A growing body of literature has begun to examine these factors in more depth. Some important factors that impact mental health outcomes are age at immigration (Gong, et al., 2011; Leu, et al., 2008), duration lived in the U.S. (Abe-Kim, et al., 2007), documentation status (Gonzalez, Suarez-Orozco, Dedios-Sanguineti, 2013; Javanbakht, et al., 2019), planning put into the journey (Gong, et al., 2011), and family, neighborhood, and social context after immigration (Alegria, Alvarez, & DiMarzio, 2017).

Generational Status. One important factor is generational status. The lives of immigrant-origin youth change over successive generations. Second-generation immigrant-origin persons' experiences are very different than their first-generation counterparts. Different generations of immigrant-origin persons face different challenges and have different resources. First-generation immigrants may struggle with learning a new language and coping with more extended absences from family members, while second-generation immigrant-origin individuals may have comparatively limited access to their parents' native language, and may identify more with the cultural practices of their new country (Rumbaut, 2004; Suarez-Orozco, Bang, & Kim, 2011; Suarez-Orozco, Suarez-Orozco & Todorova, 2008; APA, 2012). Later generations are also at higher risk for developing mental health problems. Several epidemiolocal studies have found that second- and later-generation (i.e., third- and onward) individuals have higher risk of developing mood and anxiety disorders (Georgiades, et al., 2018; Alegria, et al., 2007). Importantly, when these individuals experience mental health problems, they do so more chronically and at higher severity. Studies of Mexican, African American, Caribbean, and Puerto Rican immigrants find that these individuals were more likely to experience recurrent major depressive episodes than their non-immigrant counterparts (Gonzalez, et al., 2010; Williams, et al., 2007). These findings about chronicity highlight the importance of ensuring that immigrant-origin persons are able to engage in mental health treatment.

Generational status, however, raises the question of cutoffs with regard to persons of immigrant origin. That is, the literature has not distinctly identified how many generations need to pass before there is negligible difference between immigrant-origin persons and non-immigrants. Some guidance exists in the extant body of literature in that few studies look past third-generation individuals, with the majority of studies focusing on first- and second-generation immigrant-origin persons. However, there is no established "cut point" at which it is no longer meaningful to distinguish between different generations of immigrant-origin persons.

Immigrant Mental Health Treatment

Immigrant-origin persons have been found to use mental health services at much lower rates than their non-immigrant counterparts. Research across immigrant groups estimates that anywhere from 1.91-3.93% of immigrants use mental health services, with some indication that only 34% of immigrants with probable mental health diagnoses sought treatment in the past year (Alegria, et al., 2007; Jackson, et al., 2007; Abe-Kim, et al., 2007) By comparison, epidemiological studies estimate that 43.1 to 64.8% of adults use mental health services for any mental illness (NIMH, 2017). In a similar vein, when immigrant-origin persons need mental health treatment, they are less likely to receive treatment (Gonzalez, et al., 2010). This contrast represents a mental health disparity between immigrants and non-immigrants. Health disparities exist when health outcomes that are preventable, unjust, or unnecessary, are seen in greater or lesser proportions between different groups and are typically caused by differences in access to, use of, and quality of care (Commission on Social Determinants of Health, 2008). Addressing these disparities is critical to ensuring these individuals are able to receive mental health treatment.

Barriers to Treatment

Barriers to treatment create health disparities for persons of immigrant backgrounds. Broadly, barriers can be structural (i.e., systemic factors like lack of insurance) or cultural (i.e., cultural beliefs, stigma, and lack of knowledge) (Saechao, et al., 2012; Derr, 2015). A prevalent subtype of cultural barriers, especially for persons with more severe forms of mental illness, is attitudinal barriers, (Sareen, et al., 2007; Motjabai, et al., 2011). Attitudinal barriers refer to negative health beliefs, misinterpretations about the effects of mental health and how treatment works, (i.e. lack of knowledge), and stigma about seeking mental health treatment (Andrade, et al., 2014; Leong & Kalibatseva, 2011). Another model of barriers is put forth by Leong and Kalibatseva (2011), to include several types of attitudinal barriers, specifically (1) cognitive barriers (i.e., conceptions of causes, nature, and cure of mental illness), (2) affective (i.e., willingness to report, stigma, and shame), and (3) value orientation barriers (i.e., focus on others versus on oneself). From this perspective, attitudinal barriers capture many ways that people think about illness, themselves, and about the acceptability of treatment. Amongst cultural barriers, stigma about mental health appears to be a frequently identified barrier to treatment seeking behavior (e.g., Derr, 2015; Saechao, et al., 2012). Another important attitudinal barrier is lack of knowledge about mental health treatment, including how to access treatment or what treatment may consist of (i.e., Garcia, Gilchrist, Vazquez, Leite, & Raymond, 2011; Ruiz, Aguirre, & Mitschke, 2013).

Lack of Knowledge. Lack of knowledge about mental health is a commonlycited barrier that takes many forms. These include lack of perceived need for treatment, knowledge about how mental disorders are treated, and about the nature and effectiveness of mental health treatment, low perceived need for treatment, low mental health literacy, and lack of understanding about explanatory models of mental health treatment (Motjabai, et al., 2011; Bonabi, et al., 2016). Many immigrants report lacking knowledge about mental health and treatment for mental health problems. Estimates indicate that anywhere from 25-35% of immigrants do not know that they have a diagnosable mental health problem, or do not know where to go to get treatment (Ruiz, Aguirre, & Mitschke, 2013; Wong, et al., 2006; Bauer, Rodriguez, Quiroga, & Flores-Ortiz, 1999). These findings are consistent across many different ethnic and cultural groups in the U.S., as several groups in the U.S. consistently report not knowing where to access mental health treatment (Abe-Kim, et al., 2002; Ruiz, Aguirre, & Mitschke, 2013). Lack of knowledge consistently negatively impacts treatment engagement. In one study, participants identified fear about the effects of medication, or not knowing how services could be helpful, as barriers to treatment (Ghafoori, Barragan, & Palinkas, 2015). Similarly, a study of Hispanic/Latino immigrants found that participants were unsure if their immigration status would be protected by confidentiality, which led to lower rates of treatment-seeking behaviors (Kaltman, Hurtado de Mendoza, & Gonzales, 2014).

Related to lack of knowledge, it is important to consider what immigrant-origin persons do know about mental health problems. Many cultural groups have different explanatory models for mental illness, which inform their preferences for treatment. Studies of South Asian, Afro-Caribbean, and West African immigrants consistently find that these individuals conceptualize the cause of mental health problems as partially spiritual or social (Tirodkar, et al., 2011; McCabe & Priebe, 2004). Different cultural or ethnic groups also have beliefs about acceptable treatments for their problems. Evidence indicates that Spanish-speaking Hispanic/Latino persons were less likely to prefer antidepressant medications for treatment of depression (AOR = 0.41; 95% CI, 0.19-0.90) than White persons (y Garcia, et al., 2011).

Stigma and Discrimination. Stigma has generally referred to characteristics that link a person to undesirable or devalued attributes (Jones, et al., 1984). Stigma is thought of in terms of interrelated cognitive (i.e., stereotypes), affective (i.e., prejudice), and behavioral (i.e., discrimination) responses (Fox, et al., 2018). The functions of stigma have also been clearly outlined. An important function of stigma is the oppression of members of non-mainstream groups (Phelan, Link, & Dovido, 2008; Link & Phelan, 2001). Regarding mental health, experiencing stigma related to having a mental illness or being in treatment is common. Data from the National Comorbidity Survey Replication indicates that 21.2% of persons with mental illness of any severity cited stigma as a reason for dropping out of treatment, with this number increasing to 36.6% for persons with severe mental illness (Motjabai, et al., 2011). Further, the impact of stigma on mental health treatment is clear. Stigma is associated with increased symptom severity (i.e., Boyd, et al., 2014), decreased treatment-seeking behaviors, and poorer adherence to treatment (i.e., Corrigan, 2004; Sirey, et al., 2001). These impacts on symptoms, treatment retention, and treatment outcomes, make understanding stigma critical to helping patients successfully engage in and benefit from treatment.

In the U.S., first- and second-generation immigrant-origin persons with mental health problems encounter multiple forms of stigma. Public stigma refers to stigmatizing beliefs endorsed by the majority groups within a population (Corrigan, 2004; Vogel, Wade, & Haake, 2006; Vogel, et al., 2013). Public stigma also influences the ways people treat members of stigmatized groups. For mental health, the most commonly-identified reaction due to stigma is maintaining social distance from persons known to have mental illness or who seek mental health treatment, though other forms of discrimination are also common (Parcesepe & Cabassa, 2013). Self-stigma occurs when a person with mental illness or who is seeking mental health treatment label themselves as socially unacceptable, thus internalizing a negative stereotype (Corrigan & Shapiro, 2010; Vogel, et al., 2013).

Cultural stigma. Importantly, first and later-generation individuals face cultural stigma about mental health from members of their home cultural groups. Cultural stigmas

about mental health have been identified in many immigrant groups, including Chinese (Chung, 2010), as well as Hispanic/Latino immigrants from Central America, Mexico, and South America (Kaltman, Hurtado de Mendoza, Gonzales, & Serrano, 2014). A qualitative study of Vietnamese culture found that mental health disorders are labeled as "disgraceful" and having disgracing effects on their families (Sadavoy, et al., 2004). Other cultural groups have beliefs about religion as a curative factor, which places stigma on the use of other sources to treat mental health problems (Ghaffari & Ciftci, 2010). Persons may also have concerns about how others will treat them. Some studies identified family-related concerns like parental dismissiveness of mental health, being labeled as "crazy" and cultural concerns like emphasizing "saving face" and disapproval of "burdening others with problems," (Augsberger, Yeung, Dougher, & Hahm, 2015; Saechao, et al., 2012). Collectively, these findings illustrate ways stigma experienced from one's cultural and familial groups can have a significant impact on whether persons of immigrant-origin backgrounds utilize mental health services.

Perceived stigma. Perceived stigma refers to an individual's perceptions of the stereotypes, prejudices, and discrimination held by society towards persons with mental illness (Bos, et al., 2013; Link, 1987). The literature has broadly indicated that this type of stigma is related to lower rates of mental healthcare use. One study found this to be true for Korean American immigrants (Wu, Kviz, & Miller 2009). Another study found higher levels of perceived stigma and lower levels of mental health literacy about depression in a group of immigrants from former Yugoslavia compared to their native-born counterparts (Copelj & Kiropoulos, 2011). These authors further found that depression literacy was significantly negatively correlated with stigma held towards

persons with depression (r = -.55, p < .01). This indicates that increasing the knowledge a person has about depression may have an impact on reducing the amount of stigma they hold towards individuals with depression, as well as the impact of having a lack of knowledge about mental health.

Perceived Discrimination. A related aspect of perceived stigma is perceived discrimination. Perceived discrimination has been linked to adverse mental health outcomes for both overt (i.e., directly experienced) or perceived acts of discrimination. Experiences and perceptions of discrimination are commonly linked to higher rates of depressive symptoms for a variety of immigrant groups, including Hispanic/Latino, Korean, and African-origin immigrants (Singh, et al., 2017; Bernstein, et al., 2011; Simons, et al., 2002; Russell, et al., 2018).

One contributing factor to discrimination related to immigrant groups comes from policy-level decisions made in the U.S. Research into attitudes towards immigrants indicates an increase in anti-immigrant sentiments, which is reflected in an increasing number of restrictions on immigrants within the last decade (Pew Foundation, 2013). The effects of these kinds of laws and practices on immigrant mental health are clear. One review of literature examining state-level immigration policies identified four pathways by which policy can affect mental health: (1) by affecting access to care and services, (2) stress related to structural racism, (3) affecting access to beneficial institutions and social programs, and (4) affecting access to sources of material support (Philbin, et al., 2018). Further, fear related to legal consequences has been shown to restrict the behaviors of immigrants when seeking treatment (Salas, Ayon, & Gurrola, 2013).

Limitations and Gaps in the Current Literature

Several limitations exist in the current literature on immigrant mental health and its barriers. First, more research is needed to examine the specific ways first- and secondgeneration immigrant-origin emerging adults experience barriers to mental health treatment. Several studies have identified lack of knowledge and stigma as barriers to treatment, but few look at the ways emerging experience these barriers. Even fewer studies look at how these barriers are experienced in later generations of immigrantorigin persons. However, each of these barriers can be expanded upon in meaningful ways. Additionally, it is unclear what persons do not know, but want to know, about mental health treatment. Because of the sheer heterogeneity characteristic of emerging adulthood, and the multiplicity of factors that may cause mental health problems in this group, it is important to understand the needs of this group to help connect them with treatment when they need it. Understanding the knowledge about mental health that these individuals want or need to know may help with developing interventions that can help them be more willing to engage in mental health treatment. Learning about their desired knowledge may also potentially decrease cultural stigma about mental health.

Another limitation comes from the methodologies used to study these barriers. Many studies in the barriers literature use either qualitative or quantitative methods, each of which bring specific limitations. While quantitative research paradigms allow for greater generalizability to the larger group of first- and later-generation individuals, these methods are limited in developing depth in understanding how contextual factors impact these persons' use of mental health services. Qualitative methods, on the other hand, are better suited to developing deeper understanding of a phenomenon but come with limitations related to reliability and validity; these methods are also well-suited to studying emerging adulthood as they can capture the heterogeneity of experience in this population but are harder to generalize to the larger population (Arnett & Schwab, 2012). Few studies, however, seek to combine qualitative and quantitative methods using mixed methodologies in an attempt to provide a more nuanced understanding of how barriers to treatment are experienced by emerging adults.

The Current Study

The current study sought to address the above limitations and gaps in the literature by expanding on the understanding of the ways lack of knowledge and stigma are experienced by first- and later-generation emerging adults. The current study differentiated itself from the extant literature on barriers to mental health in several ways. It first did so by focusing exclusively on first- and later-generation emerging adults and the barriers they face when seeking treatment. This study added third- and latergeneration individuals to help build on the small but extant literature on the mental health of first- and second-generation emerging adults, and findings that successive generations use mental health treatment more frequently than their predecessors. Secondly, this study aimed to expand on the literature by elaborating on how lack of knowledge and stigma were experienced by first- and later-generation immigrant-origin emerging adults. To do so, this study focused on identifying the specific cultural stigma these individuals face, as well as the specific aspects of mental health treatment they wanted to know about or did not already know about. The current study addressed limitations of qualitative or quantitative methods by employing a mixed-methods paradigm. The use of both qualitative and quantitative data streams helped overcome the inherent limitations posed

by qualitative and quantitative methods when used individually and thus deepen the field's understanding of barriers to treatment.

Research Questions

Due to the mixed-methods nature of this study, several types of research questions were posed. In line with recommendations by mixed methods literature (e.g., Creswell & Plano Clark, 2018), three types of questions were delineated for this study: (1) qualitative, (2) quantitative, and (3) mixed methods.

Qualitative Research Questions:

- 1. How do emerging adults experience lack of knowledge and negative cultural stigma about mental health on a day-to-day basis?
- 2. What have first- and later-generation emerging adults learned about mental health, mental illness, and mental health treatment? Where are they learning this from?
- 3. What information do these persons perceive themselves as "needing to know" in order to be more willing to engage in therapy or other mental health services?

Quantitative Research Questions:

- 1. How many first- and later-generation immigrant-origin emerging adults have pursued mental health treatment?
- 2. How many first- and later-generation immigrant-origin emerging adults endorse different stigmas about mental health?
- 3. How do patterns of mental health treatment use differ between successive generations of immigrant-origin emerging adults?

Mixed-Methods Question:

1. How do participants' reported behaviors and stigma around mental health align

with their descriptions of their experiences?

Method

Participants

Participants were recruited from the student population at a large undergraduate institution located in an urban setting. The student makeup of St. John's is mostly female (56.6% female and 43.4% male) with a diverse student body (17% African American, 17% Asian, 10% Hispanic/Latino, and 16% other, with approximately 3% of students falling into the non-resident category) (St. John's University, 2018). Participants were recruited from introductory Psychology courses. These students were required to participate in research as part of their course requirements. In exchange for study participation, students received partial course credit. These students can choose from several studies over the course of each semester, all hosted on the SONA system, and so they are not obligated to participate in the current study. Participants were eligible if they were between the ages of 18 and 29 and identify as being of immigrant descent. There were no additional exclusion criteria for the current study, other than age and immigrant-origin status. Although not explicit, an implied exclusion criterion for this study was English language proficiency, as the study was only available in English.

Procedure

All participants completed an online survey composed of a mix of open-ended qualitative questions and self-report questionnaires. After they opted to participate, participants were redirected to the Qualtrics system to obtain informed consent and complete the survey. Informed consent was presented electronically at the start of the survey, notifying participants of their rights. Participants were notified of their right to end participation at any time with no negative effects. If participants consented to study participation, they were directed to the survey; if they declined consent, they were directed to a page thanking them for their time. Following data collection, participants' responses were reviewed to identify and redact any identifying information (e.g., email addresses, SONA ID's, names).

Measures

Demographic Characteristics. Participants were asked several questions geared at identifying their demographic characteristics. The characteristics that were asked for were guided by the literature. Participants were asked about their nativity status (i.e., whether they are foreign- or U.S.-born, as well as how many generations their family has been in the U.S.) age, education level, and questions related to prior mental health treatment use (i.e., whether they have used treatment before, for what problems, etc.). The demographic questions that participants were asked are listed in Appendix A.

Online Survey. Participants completed a survey comprised of qualitative and quantitative measures. Qualitative questions were presented with text boxes beneath them to allow participants to type in their responses. Participants were encouraged to share as much detail as they were comfortable sharing in response to each question. They were able to skip questions they felt uncomfortable answering.

Qualitative Inquiry. Qualitative questions focused on several themes: knowledge about mental health, cultural and family beliefs and practices related to mental health, stigma, experience with mental health, At the end of the study, participants were presented with the option to learn about accessible campus-based mental health services (e.g., the Center for Counseling and Consultation), crisis resources (e.g., the National Suicide Prevention Hotline, 911), and resources to help them find community-based

treatment (e.g., PsychologyToday.com, ZocDoc.com). For a list of the questions posed to participants, please see Appendix A.

Quantitative Measures. Quantitative self-report measures were included to provide a different stream of information about lack of knowledge and stigma, as well as mental health experience.

Stigma. The Perceived Devaluation and Discrimination (PDD) Scale (Link, Struening, Nesse-Todd, Asmussen, & Phelan, 2001) is a twelve-item scale commonly used to assess the extent to which a person agrees with positive and negative beliefs commonly held by the public about persons with mental health conditions (i.e., Latalova, Kamaradova, & Prasko, 2014; Brohan, Slade, Clement, & Thornicroft, 2010). Participants rated each item on a Likert scale ranging from 0 (Strongly Disagree) to 3 (Strongly Agree); items representing positive beliefs about persons with mental illness (e.g., items 1, 3, 4, 7, 8, and 11) are reverse scored. Higher scores in response to each item thus indicate higher levels of endorsement of a given stereotype about persons with mental illness. Additionally, a total score is calculated by summing the total of participants' responses to each item and dividing by 12, thus producing an average score ranging from 0 to 3 (Link, et al., 2001; Link, Mirotznik, & Cullen, 1991). This scale has demonstrated good internal consistency (alpha = .86-.88) and test-retest reliability (Cronbach's alpha = .93) (Link, et al., 2001; Yang & Link, 2015). See Appendix E for a copy of this measure.

Depression. The PHQ-9 (Kroenke, Spitzer, & Williams, 2001) is a brief, widely used, nine-item screening tool used for assessing depression symptoms experienced within the past two weeks. Each item is anchored to DSM-5 criteria for depression.

Participants rated how often each problem has bothered them over the past two weeks on a Likert scale ranging from 0 (*Not at all*) to 3 (*Nearly every day*). Scores were summed to create a total score ranging between 0-27, with higher scores indicating more severe symptomatology. This measure also included a question assessing for functional impairment, which was not included in the total score. The PHQ-9 has established cutoffs that reflect different symptom severity levels, including minimal (0-4), mild (5-9), moderate (10-14), moderately severely (15-19), and severe (20-27) depressive symptoms.

The PHQ-9 has good criterion validity (88% sensitivity and 88% specificity), internal consistency (Cronbach's alpha range from .86-.89) and test-retest reliability (.84) (Kroenke & Spitzer, 2001). Importantly, the PHQ-9 has been validated for use with a number of different immigrant-origin groups, including undocumented Mexican migrant farmers (Donlan & Lee, 2010), elderly Korean immigrants (Donnelly & Kim, 2008) and Chinese American immigrants (Yeung, et al., 2008). Additionally, the PHQ-9 has been validated in several other countries, including Nepal (Kohrt, et al., 2016), Kenya (Monahan, et al., 2009), and Thailand (Lotrakul, Sumrithe, & Saipanish, 2008). Together, this body of literature provides evidence that the PHQ-9 is appropriate for use with various immigrant groups. See Appendix D for a copy of this measure.

Data Analytic Plan

Mixed Methods. Mixed methods paradigms are recommended when there is a need to develop, implement, and evaluate a program, or to obtain more complete or corroborated results to understand a phenomenon (Cresswell & Plano Clark, 2018). This study employed a convergent mixed methods design. This design involved (1) collecting both qualitative and quantitative data, (2) analyzing each individually, (3) merging or

comparing the separate data streams, and (4) interpreting the ways the two data sets relate, converge, or combine to form a better understanding of the phenomenon in question (Cresswell & Plano Clark, 2018). Previous studies have used convergent mixed methods paradigms to explore a variety of topics, including the connections between racial microaggressions and psychological functioning in high-achieving African Americans (Torres, Driscoll, & Burrow 2010) and barriers to using different recording systems in family practices (Pare, et al., 2014) An advantage to using mixed methods paradigms is that they allowed researchers to gain a deeper understanding of complex processes by using different streams of data (Hanson, et al., 2005).

Use of Qualitative vs. Qualitative Data. In this study, the primary purpose of quantitative research was data triangulation, which is the use of multiple kinds of data to help establish validity within study results and deepen understanding of a topic by creating a more nuanced understanding of a given phenomenon (Morse, 2015; Barusch, Gringeri, & George, 2011). Qualitative and quantitative data were compared to examine consistency and convergence within a participant's results. Participants may have, for instance, indicated that stigma prevented them from accessing mental health treatment without speaking to the content of the stigmatic beliefs they encounter. However, using this participant's responses to the PDD, some of the specific stigmatic beliefs they endorse can become clear. Taken together, responses to similar questions acted as a check on one another. In this way, the current study's use of qualitative and quantitative data maintains a relationship characterized by complementarity, wherein the data provided by quantitative measures helps further describe each case, rather than being generalized to a group of individuals (Cresswell, 2017; Sandelowski, 2000).

Qualitative Analysis

Qualitative Codebook Development. Qualitative analysis began with development of a codebook, which is a set of labels, including definitions and examples, used to analyze qualitative data. Codes provide a formal, operationalized, means for analyzing data that allow others to replicate the coding process. In qualitative research, codebook development is seen as essential, as it provides a means for replicability and increases the reliability of the findings (Fonteyn, et al., 2008; DeCuir-Gunby, Marshall, & McCulloch, 2011). Each code comprised a label that is applied to a chunk of text as a means of describing the content efficiently. Codes can be developed from pre-existing theory (e.g., *a priori*, or theory-driven), notable themes emerging from the data (e.g., data-driven), or the goals and questions that a project seeks to investigate (e.g., structural; Ryan & Bernard, 2003). Once codes are developed, they can be organized hierarchically to produce a taxonomy of more general codes and specific sub-codes in a process known as axial coding (Corbin & Strauss, 2008)

Codebook development was carried out by the principal investigator and a masters'-level graduate research assistant, and took place in two phases, consistent with methods described in other sources (Fonteyn, et al., 2008; Ryan & Bernard, 2003). First, both researchers read five randomly selected survey responses independently. Each individual survey response was analyzed using a standard approach to content analysis, where each research team member marked sections of text and applied tentative codes (see Ryan & Bernard, 2000). The research team met weekly to review survey transcripts and compare codes they had generated. This was repeated for a second set of five survey responses. After that point, both researchers agreed that the codes being generated were

no longer distinct from the already-established codes. Data- and theory-driven codes were developed for the codebook. Some higher-level codes were theory driven, while subcodes were derived from responses that emerged in the data.. Eventually, an initial list of 376 codes was generated. This list first narrowed down by removing duplicate or similar codes. Axial coding strategies were employed to organize the codebook hierarchically, such that as structure of broader codes and more specific sub-codes was developed. This process was repeated until the total codes were numbered less than 40, in line with recommendations for codebook development (DeCuir-Gunby, Marshall, & McCulloch, 2011).

Codebook Testing. The first version of codebook consisted of 10 codes. The codebook was then tested by having both members of the research team coded a sample of two novel survey responses. The research team met weekly via telephone to discuss coding, as before. Codes were compared during this meeting, with focus on identifying and resolving discrepancies in the ways both research team members applied codes. Discrepancies were resolved by discussing each team member's reasoning for applying (or not applying) given codes. These discussions included clarifying any misunderstanding as to what codes' definitions meant versus implied. With each discussion, the research team discussed whether a code was applied due to inferences on the part of the researcher; when this was the case, the code was not applied to the given chunk of text.

Several changes were made to the codebook after these initial meetings. These included refining code definitions, as well as identifying any relevant codes that emerged from the data but were missing from the codebook. Changes were judged to be necessary if codes were found to be applied to text that did not fit with the established definitions, or if either researcher was confused as to the applicability of codes after testing on the data. Sub-codes were added and subtracted to better represent challenges posed when using the original codebook. After any changes to codes or sub-codes, the research team paid attention to changes in how codes were applied to see if any confusion remained and to see if discrepancies in coding occurred less frequently. During this phase of testing, discrepancies in coding were noted to decrease after making changes to the codebook.

After making changes, the codebook was tested again, using a second, previously uncoded, set of survey responses. Testing proceeded in the same manner as before. During this second revision, further changes were made to codes and definitions. Both members of the research team also discussed whether any new codes were necessary. As a result of this discussion, some codes, which had been deemed too broad, were broken down into two distinct codes. This resulted in the addition of sub-codes delineating different types of stigma. At this point, the research team deemed the codebook was complete enough to begin assigning groups of response transcripts at a time for final coding. However, it was agreed that coding would take place in an iterative process, wherein the codebook was treated as a "living document," that could be revised as the analysis of more data shed light on different themes that were emergent in the data.

The final codebook consisted of a set of 14 codes. Codes focused, generally, on knowledge about mental health treatments, cultural and family beliefs and dynamics (e.g., behaviors) around mental health, and things participants identified wanting to know or have before being willing to engage in mental health treatment. All codes and subcodes were agreed upon by both members of the research team. See Appendix B for the finalized codebook used for analysis.

Qualitative Analysis. Once the codebook was developed, tested, revised, retested, all responses were coded. After this, since the codebook evolved over the course of analysis, the earliest half (first 40) of survey responses were reviewed to ensure that they were adequately coded. A similar process was used to re-code the survey responses used in developing the codebook. Once these tasks were completed, spot checks were conducted. Three sets of five survey responses were selected at random, with each reviewed to make sure that coding was accurate.

Analysis took place using the NVivo software package (Version 12), which is commonly used for qualitative analysis. This software package allows for the analysis of qualitative data by allowing researchers to upload participants' responses, recreate the codebook, and apply codes to specific chunks of text. Transcripts of participants' responses were uploaded to NVivo individually and then the appropriate codes were applied in line with decisions made during coding meetings held by the research team. Once all data was entered with its appropriate codes attached, analysis could take place. Analysis consisted of organizing the data, reducing it into themes via coding, and then representing the data in various forms such as figures, tables, or discussion (Cresswell, 2013).

Rigor. A common criticism of qualitative research is that it appears to lack reliability and validity in terms of the ability for it to be replicated. This does not mean, however, that qualitative methods are unreliable or lack validity. Instead of using statistical tests to test reliability and validity, qualitative research judges these from the

methods used to attain findings. In qualitative research, creditability (i.e., internal validity), transferability (i.e., external validity), dependability (i.e., reliability), and confirmability (i.e., objectivity) are used to evaluate the rigor, or trustworthiness, of a given study (Guba, 1985; Cresswell, 2012).

Several criteria for establishing rigor in qualitative work have been recommended, including (1) triangulation, (2) peer debriefing, (3) persistent observation or prolonged engagement, (4) reflexivity or use of self, (5) thick description, (6) negative case analysis, (7) member-checking, (8) external audit, and (9) development of a clear codebook (Cresswell, 2007; Morse; 2015). Triangulation is one of the most commonly-cited methods used and can consist of using different kinds of data (data triangulation), having multiple researchers conduct the research (investigator triangulation), and using diverse theoretical perspectives (theory triangulation) (Barusch, Gringeri, & George, 2011). Several of these approaches were applied in the current study to increase rigor. Data triangulation by having qualitative and quantitative streams of data, as well as analyst triangulation in the form of having two members of the research team. The development of the codebook using the above described process also added to the rigor of the current study.

Use of Quantitative Measures. Quantitative data was primarily used to provide more information about concerns and beliefs held by the participants. For example, a person who endorsed "Most people would accept a person who has been in a mental hospital as a close friend" on the PDD has provided information about their belief about mental health. Additionally, responses like these can be used to triangulate, or increase the verifiability of more open-ended questions. In this example, endorsing this item would provide verification for an answer to a qualitative question. However, some analyses were also conducted using quantitative data, as described below.

Quantitative Analyses. Simple descriptive statistics were calculated to identify trends in the data. These were computed in the SPSS statistical software package (SPSS Version 26.0). To allow for this, several transformations were conducted on the raw data. Primarily, descriptive statistics and frequencies were used to calculate means and raw counts for specific question responses, as necessary. Descriptive statistics were calculated to look at mean levels of depressive symptoms and perceived discrimination that participants reported, as well as looking at the spread of participants' demographic characteristics, including education, ethnicity, age, gender, and reported mental health treatment experience. Additional analyses were conducted to examine the relationships between relevant variables. A chi-square test of independence was conducted to examine the relationship between immigrants' generational status (i.e., first-, second-, or latergenerations) and reported use of mental health treatment. Finally, a one-way ANOVA was conducted to assess for differences in total PDD scores across different generations of immigrant-origin emerging adults.

Results

Participant Demographics

After duplicate responses were removed and empty responses trimmed from an initial 100 survey responses, a total of 89 survey responses were left for analysis. One participant's responses were excluded from analysis due to age requirements. Participants were mostly female (72.9%) and identified as second-generation (49.4%). Participants identified as being from a diverse array of ethnic backgrounds, though most participants identified as two or more ethnicities (11%); See Table 1 for a more detailed breakdown. Additionally, 13.5% of participants identified as two or more ethnic backgrounds. Educationally, the majority of participants were Psychology majors (59.5%), with the remainder of participants identifying as a variety of other majors. Of note, a large percentage of the sample participants reported using some form of mental health treatment (83.2%) or having at least one family member with a history of mental health problems (75.3%).

Quantitative Analyses

Depressive Symptoms. Results from participants' responses to the PHQ-9 indicated that participants, generally speaking, endorsed mild depressive symptoms (M = 8.63, SD = 6.78), with 30.3% endorsing minimal depressive symptoms, 33.7% reporting mild depressive symptoms, 12.4% endorsing moderate depressive symptoms, 11.2% endorsing moderately severe depressive symptoms, and 9.0% endorsing severe depressive symptoms. Depression was also reported by many participants (21.05%) as the problem they sought treatment for (see Figure 1).

Perceived Stigma. Analysis of total PDD scale scores indicated that participants reactions towards statements about public opinions about persons with mental illness fell between agreement and disagreement (M= 2.58, SD = .18). In line with this, trends at the item-level indicated a mix of agreement and disagreement with different items on the PDD. Few participants indicated strong agreement or disagreement with any item on the PDD. Because of this, and to facilitate comparison of agreement versus disagreement with PDD items across generations, each item was transformed to a dichotomous scale ranging from 1 ("Agree") to 2 ("Disagree,"). To examine differences in endorsements across generations, a series of independent-samples t-tests were conducted for each PDD item to examine differences in endorsement of public stigma across generations. No significant differences were found for any PDD item between any generations (all p > .05).

Trends in Mental Health Treatment Use. Given the findings that later generations of immigrants use mental health services at increased rates, statistical tests were conducted to examine this relationship in this sample of first- and later-generation immigrant-origin emerging adults. A chi-square test of independence found that the relationship between these variables was significant, $X^2(3, N = 86) = 86.0, P < .001$. These results indicate that later generation immigrant-origin emerging adults were more likely to use mental health services. A second chi-square test examining the relationship between generational status and reported family mental health history was not significant, $X^2(15, N = 86) = 14.589, p > .05$. This indicated that later generational status was not related to reporting more family members with experience with mental health treatment. Finally, another chi-square test was conducted to examine the relationship between ethnic

identity and mental health treatment use. This test was significant, $X^2(7, N = 86) =$ 14.997, p = .036. This indicates that treatment use in this sample of immigrant-origin emerging adults was related to participants' ethnic identity. Finally, a one-way ANOVA was conducted to assess for differences in stigma endorsement across different generations of immigrant-origin emerging adults. The results of this ANOVA indicate that there were no significant differences in stigma endorsement across different generations of immigrant-origin emerging adults, F(3,85) = .485, p = .694.

Qualitative Results

Given the most prevalent themes that participants described in the survey, several overarching domains of knowledge and stigma were identified. For knowledge, the following domains were identified: (1) incomplete or incorrect knowledge, (2) logistics of seeking treatment, and (2) desired knowledge. For stigma, the domains identified from the data were (1) cultural stigma, and (2) fear of negative judgment. See Table 2 for more examples of participants' responses to each qualitative question.

Perceived Stigma. Overall, participants' descriptions of perceived stigma revealed focus on how others in their cultural groups would treat them, based on cultural beliefs about mental health problems, persons who suffer with these problems, and persons who seek treatment for mental health problems.

Approximately 35.96% of participants described being concerned being viewed as "crazy" or cultural beliefs that persons with mental health problems are "crazy." An additional 6% of participants reported concerns about persons with mental health problems being viewed as "insane." Consistent with this, over half of participants

endorsed agreement with PDD items describing the public as viewing persons with histories of mental health problems as dangerous (59.6%) or untrustworthy (70.8%).

Cultural stigma. Participants often described perceived fears and beliefs about how others would treat them, with the expectation that they would be treated negatively by others. Several participants voiced concerns about how their family would view them. One second-generation Latina female described concerns about how her family would view her if they were to learn that she had sought treatment for anxiety:

"[I] would be treated like a sick girl or made fun of for going because they think very lowly of people who seek treatment."

Another, second-generation Bengali female participant echoed these sentiments, stating:

"If you need to seek mental health treatment, then you are considered weak or unstable."

Of note, responses from second-generation participants varied in the level of support or negative evaluation perceived. One participant, a second-generation Haitian female, described a mix of reactions from her immediate and extended family:

"my immediate family would want me to do what is best for me, but I am sure if people in my extended family were to find out that they would question it and try to be all in my business. They would certainly question my parents about it." Another participant, identifying as a second-generation Caucasian male, voiced similar

splits amongst his immediate family:

"My family has split opinions. My mom thinks that treatment should be used if it will help me. My dad thinks that treatment is a waste of time and money." Similar sentiments were echoed by members of different generations. One firstgeneration Asian female described fears about exclusion:

"I would feel excluded and be disowned by my family. Everyone would see me as a weird kid."

While fewer participants identified as third-generation (28.x%) than second-generation (45.x%), responses from these individual show further positive views about mental health. Several third-generation participants described anticipating positive reactions from their family members:

"My family would support me, and i would be treated with respect."

"I think if I was open enough about my mental health problems with my family/cultural group, they would encourage me to get better and if I needed mental health treatment, I should go get it."

Other third-generation individuals, however, detailed more negative perceived responses: "they would be upset and yell at me."

"I think my family would be worried and feel bad but still think I am just being self-pitying."

A key trend that emerged when looking at the beliefs described by different generations was shifting beliefs. these shifts in perceived attitudes or perceived reactions by family members were echoed by a number of persons, namely persons of second- and thirdgeneration:

"it's gradually becoming more accepted but I think its still considered as something unconventional."

One second-generation Haitian female participant attributed shifts in her family's attitudes to the time they have lived in the U.S.:

"their views on mental health and seeking treatment have changed tremendously in their time being here... My grandmother has also become very understanding of these issues, whereas when we were younger, I felt as if the topic was just brushed over."

Collectively, these responses indicate some variation in attitude across different generations, with successive generations beginning to note more acceptance of mental health treatment and mental health problems.

Another theme that emerged under stigma was perceptions that an individual's character would be judged negatively as a result of engaging in mental health treatment. As one participant described:

"They're seen as lazy and just coming up with excuses to exceed in life." This response highlights a way in which stigma about persons who seek mental health treatment extends to the person as a whole. Indeed, participants responses revealed that persons who sought mental health treatment were viewed wholly negatively, as opposed to being viewed as persons struggling with a problem. As one participant described:

"Within my culture there are people that believe if you have mental health

problems you are no good and just crazy."

Importantly, participants did not state that all members of their cultural groups endorsed stigma about persons who either have mental illness or seek mental health treatment. However, participants spoke generally about their cultural groups generally stigmatizing mental health treatment. These sentiments were echoed on responses to the PDD. These participants reported agreement or strong agreement PDD items stating that "Most people believe that entering a psychiatric hospital is a sign of personal failure," "Most people will not hire a person who has been hospitalized for serious mental illness to take care of their children, even if he or she had been well for some time," and "Most people think less of a person after he/she has been hospitalized for mental illness." Similarly, they disagreed or with some positive statements about the ways the public view those with mental health histories, specifically "Most people in my community would treat a person who has been hospitalized for mental illness just as they would treat anyone." These responses highlight a concern that having a mental health problem, or seeking treatment, leads to negative consequences of larger magnitude.

Of note, cultural stigma did not always refer to a person's ethnic group. Other participants described the ways in which expectations tied to other parts of their identity affected their views on seeking mental health treatment. One male participant spoke about the ways being male set expectations about mental health:

"Lots of men think that it is "unmanly" to have mental problems and to admit they

need help which holds men back from seeking the help they need."

This conceptualization of how male "culture" views mental health became further complicated when considering ethnicity. This participant went on to describe how stigma operated for him on two channels:

"a lot of Latin men still embody the "manly" "tough" "machismo" archetype and think being depressed makes you weak... if you needed to be hospitalized, my best guess is that would be moment of people in my culture certifiably calling you "el loquito" (The crazy boy), and outcasting you."

These responses highlight an awareness of multiple levels of stigma, namely from an ethnic group and from perceived gender norms, that operate simultaneously.

Importantly, this participant's responses to the PDD were not consistent with his description of cultural stigma about mental health, as this participant disagreed with all items that reflected the public having negative beliefs about persons with mental illness and agreed with all items stating the public would not treat those with mental illness differently. This pattern of responses indicates that, despite knowing about stigma about seeking mental health treatment for members of his ethnicity as well as members of his gender

The contrast in these quantitative and qualitative responses does not, however, mean this participant's responses are incorrect or inaccurate. While the reasons for this contrast are not identified in this participant's response, a potential explanation for this is that the participant is differentiating his cultural beliefs from his perceptions of the mainstream public's beliefs when answering the PDD.

This participant was not the only one to reference cultural stigma in relation to identities other than ethnic identity. Other participants spoke about the ways that the mainstream U.S. cultural beliefs deterred them from seeking mental health treatment:

"I automatically associate a bad connotation with helping someone's mental health with treatment for some reason. Society has very much influenced this though, as many other people in the world have this same thought." Another participant expressed awareness of these societal pressures, speaking about the ways in which society's views on mental health have negatively impacted their seeking treatment:

"Societal pressures have always pushed me back from getting treatment for my

anxiety, since I have always been conscious about how people felt about me." These reports are notable in that they emphasize that cultural stigma can be experienced in different ways, depending on a person's demographic characteristics. As such, an individual can experience stigma in many different forms at once, and can thus be viewed intersectionally, where persons may face multiple forms of stigma, each tied to their distinct identities.

Similar responses were observed quantitatively, as these participants endorsed agreement to PDD items describing the public as viewing persons with mental health histories as dangerous and as failures. Further, these participants also endorsed disagreement with PDD items stating the public would accept, hire, trust, or date someone with a history of mental health treatment.

Limited Knowledge and Lack of Knowledge. One theme that arose around lack of knowledge was a lack of cultural knowledge, as evidenced by participants who described their cultures having some understanding that mental health problems were not "real" or by having different models of treatment or coping for problems. Religion, or somehow overcoming mental health problems was described by several participants:

"I had aunts not like that i was going to therapy for depression because I "didn't need some fancy therapist, just go to church more and pray consistently" "My culture looks at problems such as depression as something one could fix on their own and not through therapy."

"They believe if someone is anxious or depressed they want attention and just have to push the bad thoughts out."

Of note, differences were observed in perceived stigma across generations were present when participants spoke about their families' views on how to cope,. Few participants described their families believing in seeking mental health treatment. One secondgeneration participant described eventual acceptance of seeking treatment:

"That mental health problems can be overcome by yourself. But can seek for treatments. The person can be treated by a doctor."

A third-generation participant described having a family who believed in specific modalities of treatment over others:

"... mental problems should be treated with counseling and rarely every medication."

While the current study cannot determine the reason for these differences, possible causes may include acculturation, family experience with mental health, or generational differences.

While the majority of participants reported experience with, or knowledge about, many different mental health treatments (i.e., psychotropic medication, counseling, therapy, inpatient hospitalizations, etc.), actual knowledge about how to access treatment was limited. Knowing that St. John's University has a counseling center, which several students reported, did not mean students knew how to access those services. As several participants reported, they were unsure about how long they could be seen at the counseling center:

"The only thing I know about from hearsay, is that St. John's apparently has 3 free

therapy sessions with some sort of guidance counselor I believe on campus." Another participant was unsure of whether or not the free services were limited:

"I don't know if after a few times, you may get charged or not."

Of note, the website for the St. John's University Center for Counseling and Consultation (CCC) indicates no session limit and free services for students, though it focuses on brief treatment with long-term referrals made to outside providers when necessary (Center for Counseling and Consultation).

This limited knowledge was not solely related to school-based services. Many students were aware of the types of places they could potentially seek treatment from (i.e., hospitals, or awareness of the existence of community-based practitioners). However, participants' responses indicated they were not actually sure how to go about seeking treatment from these places:

"I have an idea of how to access outside sources but I don't exactly know the cost or the logistics about the process."

Even participants who had been seen by mental health professionals were not necessarily sure how to find treatment in the future, should they need it. As another participant described:

"My aunt found the therapist that I went to. I also do not know the cost because she would not let me pay for it myself." This response highlights one potential reason that participants lacked knowledge about how to find and engage in mental health treatment. Parental help, either in the form of parents paying for or enrolling participants in, treatment, was a common theme that emerged from the data. Concordant with this, several participants described reaching out to their parents as their primary form of locating and engaging in mental health treatment. These responses reveal, then, that while participants had (albeit limited) knowledge of available services, a major area where they lacked knowledge was knowing the logistics of accessing these services. This also helps explain why many participants (83.2%) may have been able to engage in the mental health treatment they reported having.

Another potential reason for the above responses, however, may be due to developmental norms for behavior. That is, emerging adults, depending on their age and life experience, may not have experience scheduling their own appointments or finding professionals to provide treatment. Therefore, the limited knowledge described above may not be attributed to their cultural learning or beliefs about mental health. However, participants' descriptions of their cultures' attitudes towards mental health and beliefs about modes of treatment may also contribute to some of the limited knowledge that emerged in this study.

Knowledge of/experience with mental health services. Qualitative frequency analysis in NVivo indicated that the most common reasons for seeking treatment amongst persons with a history of therapy were depression (21.05%) and anxiety (22.81%). See Figure 1 for a visual representation of the frequencies for which participants sought treatment for different mental health problems. Aside from their personal experience with treatment, many participants reported having a family history of mental health problems, as evidenced by their reports about persons in their family who struggled with mental health problems, though few participants spoke about their family's experiences with mental health in detail in the current study.

Desired knowledge. Participants expressed marked concern about whether speaking to a therapist ensured a measure of privacy. Even among persons who reported a history of mental health treatment, confidentiality remained a top concern. As participants did not speak to why confidentiality was a concern, potential causes include perceived stigma or negative treatment from family members, as described above. Finally, some participants also described wanting to know about how they would be able to relate to a potential therapist. The quotes below are examples of statements highlighting these themes.

"I would want to have a connection/good vibe with a mental health professional." Participants' concerns about their relationship with their therapist went beyond consideration of fit, with one participant describing the kind of disposition they want from a therapist while seeing them:

"I would want to know that the person helping me is going to talk to me from the standpoint of a person, not a psychologist... I essentially don't want to feel like I'm talking to someone who HAS to be there."

These responses pose an important challenge when trying to help immigrant-origin persons engage in mental health treatment. Participants voiced being comfortable if they knew their therapist better, which is difficult to achieve before actually engaging in therapy. Somewhat surprisingly, participants spoke less about wanting to know about how treatment works or how to access available treatment.

Discussion

The purpose of this convergent mixed methods study was to elaborate on specific areas of knowledge that first- and later-generation emerging adults lack about mental health, as well as the differing forms of stigma they experience. The quantitative stream of data revealed that most participants had some form of experience or knowledge about therapy, either through personal experience with treatment (83.2%) or family members who struggle with mental health problems (75.3%). This data stream also revealed that many, but not all, participants agreed with perceived stigmas about mental health. However, many participants also agreed with items stating the general public may positively view persons with histories of mental illness. These mixed responses to the PDD indicate, generally, that most participants believed others to have positive views.

Taken together, the qualitative and quantitative streams of analysis help shed interesting light on the lack of knowledge and stigma barriers. Results from descriptive analyses indicated that while the majority of the sample reported experience with some kind of mental health treatment, these individuals lacked key information about mental health services. Qualitative analysis revealed that most participants, even those with mental health experience, lacked knowledge about mental health services along key lines: (1) having incorrect information, (2) limited information, (3) logistics about seeking treatment, and (4) accessible services. Taken together, this indicates that, for this group of first- and later-generation emerging adults, experience with mental health treatment does not guarantee that a person knows how to access treatment in the future should they need it. Generally, the results from quantitative and qualitative streams of analysis supported each other. That is, many participants reported knowledge of stigma from family, ethnic groups, mainstream and other cultures relevant to their identities in response to qualitative questions. This was consistent with their endorsing agreement with items on the PDD that described the general public as viewing persons with mental health problems negatively.

However, the data streams also diverged in minor, but interesting ways. Despite engagement in mental health services, many participants still identified confidentiality as something they would want to know about before being willing to engage in therapy. While the reasons participants identified this concern could not be identified during the current study, this may mean that participants were unaware that confidentiality is a part of psychotherapy. Additionally, one participant described having long histories of therapy, but also described believing stigma about mental health. While the current study was unable to follow up and provide more information about how this participant was able to engage in therapy despite their beliefs, the contrast of their responses indicates that there are times where a person's experiences with stigma do not necessarily mean they will not engage in treatment. Differences also arose in the ways some participants described awareness of cultural stigmas of varying forms but did not endorse similar items on the PDD that described the general public as having these attitudes.

On the whole, this study found evidence that first- and later-generation emerging adults have more experience with therapy than might be expected, given the general rates of mental health use in immigrant-origin populations. Given that many participants reported seeing community-based services (e.g., private practice), and given limited knowledge about the counseling center at St. John's University reported by many participants, this may not be due to the presence of on-campus services. Similarly, the spread of agreement with different items on the PDD appeared to align with participants' reports about their cultural groups' beliefs about mental health. That is, participants who reported cultural stigmas about mental health problems often endorsed similar items on the PDD.

The findings from this study help broaden the understanding of the kinds of knowledge that first- and later-generation emerging adult college students have about mental health and mental health treatment. While previous studies have identified barriers to engagement in mental health use, this study was able to extend prior lines of research to emerging adults. Importantly, this study also gathered information about information participants believed would help them feel more comfortable engaging in mental health treatment. Some of these responses can be used to help inform interventions that can potentially help these youth either learn more about the logistics of seeking treatment or help them feel more comfortable engaging in treatment. The current study also reveals that this sample of immigrant-origin emerging adults had some depth of knowledge about mental health problems, treatment, and the logistics of seeking treatment. The amount that participants described knowing stands in contrast to the overall literature about immigrant mental health. With regard to stigma, the current study revealed what while many participants were acutely aware of cultural stigma related to mental health, this did not always stop them from engaging in mental health services. This study elaborated on the stigma that first- and later-generation individuals experience. Specifically, the current

study was able to identify perceived stigma that these individuals anticipated experiencing from members of their community.

Finally, this study helped shed further light on the potential cut offs for considering generational status as a source of meaningful differences when studying immigrant mental health. Consistent with the overall literature, the current study found differences in generations. Specifically, the reports of first-generation individuals were different from second- and third-generation individuals. As few individuals identified as being in generations later than third, any differences in successive generations could not be explored. However, the current study found that second- and third-generation participants gave similar reports at times, indicating a commonality between the two groups.

Limitations and Future Directions

Conducting qualitative research via the internet has a robust history of supporting literature. Previously validated forms for internet-based qualitative research include email surveys (i.e., Curasi, 2001; Meho & Tibbo, 2003), internet-based focus groups, online interviewing (i.e., O'Connor & Madge, 2003), and instant messaging (i.e., Kazmer & Xie, 2008). Several studies have collected data via a combination of email and in-person interviewing. Surprisingly, though, few studies thus far have attempted to use surveybased platforms to conduct qualitative research, with little to none employing this approach for conducting mixed methods research.

The most important limitation of the current study was the inability to ask followup questions in response to participants' answers to the survey. This impacted data analyses in distinct ways. First, there were times where participants' responses to given questions were unclear, or where their responses hinted at different beliefs or experiences but did not directly state them. As the survey format did not allow for live follow-up, it is possible that some information could have been lost due to not being present to ask students more questions. At times, these impacted decisions made in coding, as responses could not be coded due to the researchers reaching the conclusion that not enough information was present to merit applying a code without engaging in inference. An example of this was " My culture/ethnic group holds no evidence regarding my beliefs." While the current study was not able to clarify statements like this, future versions of the study could build in ways of doing so, as described below.

Despite these limitations, using an online survey methodology holds several advantages. Notable strengths of this approach include requiring less time and resources,

increased participant anonymity, obtaining more information from participants, and convenience for participants to be involved in the study as it is more accessible (Seale, et al., 2010; Safdar, et al., 2016). However, there are some notable limitations to this platform. These include inability to probe respondents for more information, limited sampling, and possible problems with cooperation as participants may not feel obligated to answer question, and inability to include tone and body language as marker for interpreting responses (Safdar, et al., 2016).

Another important potential limitation is that the participants were all drawn from introductory Psychology courses. This limitation has bearing on the kinds of knowledge and attitudes that these individuals have about mental health and mental health treatment. Similarly, as participants were all college students, they had access to campus-based mental health resources, which may have caused the high rate of experience with mental health treatment reported in this study. As the current study did not have an equivalent, non-college sample, it is possible that these participants' views and experiences may not be consistent with the larger population of emerging adults. However, it should be noted that some of the experiences reported by participants were similar to the general population. Specifically, the rates at which participants reported seeking treatment for depression or anxiety were similar to estimates for the prevalence of these issues in the general population (Kessler, et al., 2012).

Future Directions

Future directions can be informed by the results found in this study, in keeping with the iterative nature of primarily qualitative research. To address limitations of the online survey platform (e.g., inability to follow-up on responses), several directions could be taken. First, future versions of this study could incorporate a second phase wherein participants meet with a member of the research team to review their responses and provide any elaboration necessary. Such an approach would potentially add to the rigor of the research methodology, as member review and elaboration has been recommended as a part of the research process, when possible (i.e., Morse, 2015; Barusch, Gringeri, & George, 2011). Alternatively, varied question types could be used conditionally, in order to direct participants' responses more. For example, a closed ended (yes/no) question could ask whether participants have ever engaged in mental health services; if the participant responds "Yes" they could be directed to a series of questions that asks about the kinds of experiences they have with treatment (i.e., modality, length, quality of experience). The current study employed this strategy for questions asking if a person had participated in mental health treatment before.

Secondly, several additional or different types of questions could be added to future versions of the survey, based on the ways participants responded to the current set of questions. One set of questions that could be added would be questions asking participants to compare the beliefs of their home culture to other cultures they ascribe to (i.e., mainstream culture in the U.S., gender, sexual orientation, etc.). Two participants identified ways that being male, along with their perceived expectations for males, as a barrier to treatment. Future versions of this study could elaborate upon this by adding questions that ask how other parts of a person's identity (i.e., gender, age, etc.) impact their willingness to participate in mental health treatment.

Finally, future iterations of this study would benefit from having a matched, noncollege sample. For the current study, recruitment of a non-college sample. While mixedmethods paradigms do not inherent involve comparisons between groups, analysis of data from this kind of group would help shed light on any different trends in lack of knowledge or stigma about mental health that first- and later-generation emerging adults face.

APPENDICES

Appendix A

Qualitative Survey Questions

Topic: General barriers to treatment

- 1. If you wanted to pursue mental health treatment, what factors in your life would prevent you from doing so?
- 2. What factors would help you to be able to access treatment?

Topic: Knowledge about mental health treatment

- 1. What kinds of problems do you think people seek out mental health treatment for?
- 2. To the best of your knowledge, what do you think mental health treatment consists of?
- 3. How effective do you believe mental health treatment can be? Why?

Topic: Knowledge about mental health services

- 1. Where have you learned about mental health treatment? What kinds of things did you learn?
- 2. Have you ever pursued mental health services before (i.e. counseling, therapy, etc.)? If so, what was your experience like?
- 3. If you needed to see a mental health professional (i.e., a therapist, counselor, etc.) how would you go about doing so? What steps would you take?
- 4. How likely would you be to recommend mental health services to someone else? What would stop you from doing so? What would encourage you?
- 5. What mental health services do you know of that are accessible to you?
- 6. If you were to seek out mental health treatment, what would you want to know about it that would make you feel comfortable going?

Topic: Cultural beliefs about mental health and consumers of mental health

- 1. What beliefs does your cultural/ethnic group, or family, hold about persons who seek mental health treatment?
- 2. How do these beliefs differ if a person is in a mental hospital versus someone who is getting treatment from their school's counseling center?
- 3. Growing up, what did you learn about persons who seek out mental health treatment?
- 4. How (if at all) does you culture talk about common mental health problems, such as depression and anxiety?
- 5. If you did not learn about mental health at home or from members of your cultural group, where did you learn about mental health problems? What have you learned?

Topic: Miscellaneous

1. Are there any important topics you want to mention that we haven't asked about?

Appendix B

Qualitative Codebook

Knowledge-Related Codes

Want to Know

<u>Definition:</u> Any statements describing what participants want to know about treatment in order to feel more comfortable accessing mental health services, or any factors participants want that they think will make mental health services easier to connect with. <u>Sample Text:</u> "I would like to know how many people actually seek out treatment because people are so secretive about it that it makes you uncomfortable being seen going into therapy."

Subcodes:

- a. Therapist Characteristics
- b. Office Conditions/Atmosphere
- c. Relationship with Therapist
- d. Privacy/Confidentiality
- e. General Information

Lack of Knowledge

<u>Definition</u>: Describes areas of mental health (e.g., treatment, services, etc.) that people do not know things about.

<u>Sample Text:</u> "I don't know much about what's available," (MH56); "I don't really know anything about seeking them except they are available through the school." (MH12) <u>Subcodes:</u>

- Logistics related to treatment
- How treatment works
- What treatment looks like
- Lack of cultural knowledge

Experience with Mental Health

<u>Definition</u>: Statements describing or suggesting previous direct interaction/use of mental health or related services.

<u>Sample Text:</u> "I have had treatment in hospitals as well as seen a psychotherapist for 5 years and on and off seen psychiatrists and worked with cos and family and children services."

Subcodes:

- Impact
- Medication
- Presenting Concerns
- Therapy & Counseling

Quality of Mental Health Experience

<u>Definition</u>: Statements that describe the participant's assessment of any prior mental health treatment, of any modality.

<u>Sample Text:</u> "Yes, I have gone to counseling at SJU and I had a great experience." <u>Subcodes:</u>

- Positive
- Negative

Knowledge about Mental Health Treatment

<u>Definition</u>: Statements describing an individual's understanding of what mental health treatment looks like, including strategies used in session, types of treatment, interventions used by the therapist, etc.

<u>Sample Text:</u> "Drawings to express emotions, relaxation methods, talking to therapist about issues in life."

Subcodes:

- Structure & Components
- Modalities

Accessing Services

Definition: Statements describing how to access mental health services.

<u>Sample Text:</u> "I would locate the center on campus that provides free counseling and ask for an appointment."

Subcodes:

- Word of Mouth
- Research
- Doctor Referral
- Parental Help

Accessible Services

<u>Definition</u>: Statements describing accessible services the participant is aware of, regardless of whether they have used them.

<u>Sample Text:</u> "On campus, the psychological center provides free short terms services and if you need long term, they can refer you to a long term psychotherapist." (MH7) <u>Subcodes:</u>

- School-based Services
- Community-based services
- Free vs. Paid Services

Learning about Mental Health

<u>Definition</u>: Statements describing where a person learns about therapy or mental health-related issues and what they learned.

<u>Sample Text:</u> "I learned it is ok to seek out mental health treatment and there is nothing wrong with it. However it is not always understood by others."

- Subcodes:
 - a. School
 - b. Media
 - c. Family
 - d. Personal Experience
 - e. Peers/Social

Individual, Cultural, and Family Models and Practices

Family/Cultural Practices

<u>Description</u>: Any statements describing ways a person's family copes with mental health problems, treats persons in the family with mental problems, or treats those who seek mental health treatment.

<u>Sample Text:</u> "I would be afraid of what my family would say or if they would even give me the same treatment if I were to pursue something like that because it's not aligned with their beliefs."

Subcodes:

- How others are treated
- Reactions to Disclosure
- Encouragement
- Don't talk about it/ignore it
- Shifting practices

Individual Models of Mental Health

<u>Definition</u>: Statements describing the individual's conception of how mental health treatment works, what it can be used to treat, the benefits a person can achieve via treatment, or what persons need to do in order for treatment to work.

<u>Sample Text:</u> "I think mental health treatment can be helpful for just about anything. I think people can realize that there's others who deal with the same issues they face and that they don't have to let their mental health issues define them."

Subcodes:

- Conditions for Effectiveness
- Reasons for Treatment
- Impact & Outcomes

Cultural Comparisons

<u>Definition</u>: Statements describing or comparing the ways in which different cultures conceptualize mental health, or the ways persons who seek mental health treatment are treated.

<u>Sample Text:</u> "I come from a Hispanic and white family. My Hispanic side beliefs you can just overcome it and feel better. They don't really believe that it's a real illness. They feel like therapy is a waste of money and they judge people who go to therapy. My white side doesn't really have a strong opinion on it."

Subcodes:

- Cultural Differences
- Cultural Similarities

Nativity Effects

<u>Definition</u>: Any descriptions of family origin, immigration status, generational status, etc., that is related to mental health attitudes

<u>Sample Text:</u> "My parents are open to it, but my dad wasn't fully onboard at first. He doesn't really believe in depression or anxiety. His mother (my grandma) grew up in

Japan with a single mother (my great grandma). It wasn't an option back then and he never had it as an option either once he moved to the US." (MH 83) <u>Subcodes:</u>

- Effects of Immigration
- Generational Differences

Personal Beliefs about Therapy

<u>Definition</u>: Statements describing what a person thinks they can get out of therapy, or what changes they think therapy can lead to.

<u>Sample Text:</u> "Tend to not personally believe in it for someone like myself." <u>Subcodes:</u>

- Positive Beliefs
- Negative Beliefs

Recommending to Others

<u>Definition</u>: Statements referring to a person's thoughts about recommending mental health services to others.

<u>Sample Text:</u> "I would be discouraged from doing so if they have a negative view on therapy, but I would be encouraged by the many testimonials of people who have gone through therapy."

Subcodes:

- Willingness
- Unwillingness

Family/Cultural Models of Mental Health

<u>Definition</u>: Descriptions of ways a person's culture or family thinks about mental health, mental health problems, and mental health treatment.

<u>Sample Text:</u> "They believe that mental health problems are not altogether real. They think that people with such problems are just struggling but not to the severity that it is made out to be."

Subcodes:

- Behavioral problem (e.g., acting out, "being dramatic," or using mental health problems as an excuse to get something)
- Mental health as character flaw
- Models of Treatment/Coping
- Shifting Attitudes/Beliefs
- Mental illness as "insanity"

Mental Health Stigma

<u>Definition</u>: Statements describing negative beliefs held by the individual, or others, about mental health problems, persons with mental health problems, or seeking mental health treatment.

<u>Sample Text</u>: "people who seek mental treatment are weak." <u>Subcodes:</u>

- Individual
- Self
- Cultural/Social/Public
- Perceived

Appendix C

Demographic Questionnaire

- 1. Age: _____
- 2. Gender:
- 3. Ethnicity:
- 4. What is your highest level of education? (Check one):
 - a. High School/GED _____
 - b. Some college _____
 - c. Bachelor's degree _____
 - d. Graduate school _____
 - e. Other
- 5. Were you born in the United States?
 - a. Yes
 - b. No (If not, where were you born?
- 6. Have you ever seen a mental health professional (i.e., a therapist, counselor, social worker) for treatment before?
 - a. Yes
 - b. No
- 7. If you answered "Yes" to Question 6, what problem(s) did you see a mental health professional for help with?
 - a. Yes
 - b. No
- 8. How many generations has your family been in the U.S.?
 - a. One (You moved here from another country)
 - b. Two (You were born in the U.S., but at least one of your parents were not)
 - c. Three (You were born here, and your parents were born here)
 - d. More than three
- 9. Would you be interested in getting more information about mental health services?
 - a. Yes
 - b. No

Appendix D

Patient Health Questionnaire – 9 (PHQ-9)

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

0 = Not at All, 1 = Several Days, 2 = More than half the days, 3 = Nearly every day

- 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 persons 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 of hurting yourself

If you checked off any problems, how difficult have these problems 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

PHQ-9 Score Cutoffs

Range	Level of Severity
	Minimal
	Mild
	Moderate
	Moderately severe
	Very Severe

Appendix E

Perceived Devaluation and Discrimination Scale

Participants are asked to read the following statements and indicate the extent to which they agree on the following scale:

1 = Strongly Disagree, 2 = Disagree, 3 = Agree, 4 = Strongly Agree

* Note: Items with an (R) next to them are reverse scored

- 1. Most people would accept a person who has been in a mental hospital as a close friend. (R)
- 2. Most people believe that someone who has been hospitalized for mental illness is dangerous.
- 3. Most people believe that a person who has been hospitalized for mental illness is just as trustworthy as the average citizen. (R)
- 4. Most people would accept a person who has fully recovered from mental illness as a teacher of young children in a public school. (R)
- 5. Most employers will not hire a person who has been hospitalized for mental illness.
- 6. Most people think less of a person after he/she has been hospitalized for a mental illness.
- 7. Most people would be willing to marry someone who has been a patient in a mental hospital. (R)
- 8. Most employers will hire a person who has been hospitalized for mental illness if he or she is qualified for the job. (R)
- 9. Most people believe that entering a psychiatric hospital is a sign of personal failure.
- 10. Most people will not hire a person who has been hospitalized for serious mental illness to take care of their children, even if he or she had been well for some time.
- 11. Most people in my community would treat a person who has been hospitalized for mental illness just as they would treat anyone. (R)
- 12. Most young people would be reluctant to date someone who has been hospitalized for a serious mental illness.

Table 1

Demographic characteristics of survey respondents (N = 89)

Demographic	N	%
	(or mean)	(or SD)
Age	19.51	1.27
Gender		
Male	22	24.7%
Female	64	71.9%
Fluid	1	1.1%
Ethnicity		
African	1	1.1%
African American/Black	5	5.6%
White/Caucasian/European Origin		
Italian/Italian American	5	5.6%
Greek	1	1.1%
South Asian		
Bengali	2	2.2%
Indian	1	1.1%
Caribbean		
Guyanese	1	1.1%
East Asian		
Chinese (Han)	1	1.1%
Southeast Asian		
Filipino	1	1.1%
Asian/Pacific Islander		
Two or more ethnicities:		
White/Asian	1	1.1%
White/Hispanic	1	1.1%
White/Japanese	1	1.1%
White/Black	1	1.1%
Irish/Ecuadorian	1	1.1%
Mixed (did not specify)	1	1.1%
Hispanic and White	1	1.1%
Hispanic/Latino	1	1.1%
Hispanic/Italian	1	1.1%
Latino/Mexican	1	1.1%
Major		
Psychology	53	59.5%
Accounting	2	2.2%
Asian Studies	1	1.1%
Audiology	1	1.1%
Biology	11	13.4%
Biomedical Sciences	1	1.1%

Childhood Education1 1.1% Computer Science1 1.1% Criminal Justice3 3.3% English1 1.1% Homeland1 1.1% Legal Studies1 1.1% Hospitality Management1 1.1% Physics1 1.1% Double Major2 2.2% Undecided4 4.5% Treatment ExperienceYes79Yes79 83.2% No14 14.7% Did not respond2 2.1% NativityFirst generation12First generation25 28.1% Later than third5 5.2% Did not respond3 3.4%	Chemistry	1	1.1%
Criminal Justice3 3.3% English1 1.1% Homeland1 1.1% Legal Studies1 1.1% Hospitality Management1 1.1% Physics1 1.1% Double Major2 2.2% Undecided4 4.5% Treatment Experience79 83.2% No14 14.7% Did not respond2 2.1% NativityFirst generation12First generation44 49.4% Third Generation25 28.1% Later than third5 5.2%	Childhood Education	1	1.1%
English1 1.1% Homeland1 1.1% Legal Studies1 1.1% Hospitality Management1 1.1% Physics1 1.1% Double Major2 2.2% Undecided4 4.5% Treatment ExperienceYes79Yes79 83.2% No14 14.7% Did not respond2 2.1% NativityFirst generation12First generation44 49.4% Third Generation25 28.1% Later than third5 5.2%	Computer Science	1	1.1%
Homeland1 1.1% Legal Studies1 1.1% Hospitality Management1 1.1% Physics1 1.1% Double Major2 2.2% Undecided4 4.5% Treatment Experience 79 83.2% No14 14.7% Did not respond2 2.1% Nativity $First$ generation12 13.5% Second generation44 49.4% Third Generation25 28.1% Later than third5 5.2%	Criminal Justice	3	3.3%
Legal Studies1 1.1% Hospitality Management1 1.1% Physics1 1.1% Double Major2 2.2% Undecided4 4.5% Treatment Experience79 83.2% No14 14.7% Did not respond2 2.1% Nativity 12 13.5% Second generation 44 49.4% Third Generation25 28.1% Later than third 5 5.2%	English	1	1.1%
Hospitality Management1 1.1% Physics1 1.1% Double Major2 2.2% Undecided4 4.5% Treatment Experience 4 4.5% Yes79 83.2% No14 14.7% Did not respond2 2.1% Nativity 12 13.5% Second generation44 49.4% Third Generation25 28.1% Later than third5 5.2%	Homeland	1	1.1%
Physics1 1.1% Double Major2 2.2% Undecided4 4.5% Treatment Experience 79 83.2% No14 14.7% Did not respond2 2.1% Nativity $First$ generation12 13.5% Second generation44 49.4% Third Generation25 28.1% Later than third5 5.2%	Legal Studies	1	1.1%
Double Major22.2%Undecided44.5%Treatment Experience7983.2%No1414.7%Did not respond22.1%Nativity1213.5%Second generation4449.4%Third Generation2528.1%Later than third55.2%	Hospitality Management	1	1.1%
Undecided44.5%Treatment Experience7983.2%No1414.7%Did not respond22.1%Nativity1213.5%Second generation4449.4%Third Generation2528.1%Later than third55.2%	Physics	1	1.1%
Treatment ExperienceYes7983.2%No1414.7%Did not respond22.1%Nativity213.5%Second generation4449.4%Third Generation2528.1%Later than third55.2%	Double Major	2	2.2%
Yes79 83.2% No14 14.7% Did not respond2 2.1% Nativity2 13.5% Second generation44 49.4% Third Generation25 28.1% Later than third5 5.2%	Undecided	4	4.5%
No1414.7%Did not respond22.1%Nativity213.5%Second generation4449.4%Third Generation2528.1%Later than third55.2%	Treatment Experience		
Did not respond22.1%NativityFirst generation1213.5%Second generation4449.4%Third Generation2528.1%Later than third55.2%	Yes	79	83.2%
NativityFirst generation1213.5%Second generation4449.4%Third Generation2528.1%Later than third55.2%	No	14	14.7%
First generation1213.5%Second generation4449.4%Third Generation2528.1%Later than third55.2%	Did not respond	2	2.1%
Second generation4449.4%Third Generation2528.1%Later than third55.2%	Nativity		
Third Generation2528.1%Later than third55.2%	First generation	12	13.5%
Later than third55.2%	Second generation	44	49.4%
	Third Generation	25	28.1%
Did not respond 3 3 4%	Later than third	5	5.2%
	Did not respond	3	3.4%

Table 2

Additional Participant Responses to Qualitative Questions

General Barriers to Treatment

If you wanted to pursue mental health treatment, what factors in your life would prevent you from doing so?

"My dad and mom don't believe that this is a necessary option. They believe if someone is anxious or depressed they want attention and just have to push the bad thoughts out."

"I don't think there is something that would prevent me of doing that."

"Fear of my parents not understanding or criticizing me for it or being viewed as strange/crazy by peers who do not fully understand what I am going through. Lack of support and help from family or friends. Not having the ability to travel to the treatment reliably."

"Not being able to afford continued treatment since we don't have much spare money or insurance, judgement from family and friends as mental integrity is valued and you shouldn't need help."

"Work and school."

"the cost or judgment from others."

What factors would help you to be able to access treatment?

"Family, friends, lower costing treatment, widely available treatment." "My mom is someone who would both help and motivate me to seek treatment."

"If I have people supporting my decision, and if the site takes my insurance." "Factors that would help motivate me to be able to seek treatment are the support of family and friends. Also as of recent years there has been a massive emphasis on the importance of mental health in the United States. Although there are still many people that think we can just "tough out" our depression or other mental problems, I am glad there has been such a great emphasis on the importance of mental health; which is another factor that motivates me to seek treatment."

"Financial factors would help to motivate me to be able to seek treatment." "Knowing that the outcome/results can actually improve my quality of life."

"Because I know treatment really helps and if I need help I am going to get it." **Knowledge about Mental Health Treatment**

Where have you learned about mental health treatment? What kinds of things did you learn?

"School."

"Psychology classes."

"I have not been formally taught much, but I do know that people are becoming more accepting of seeking treatment which is great. Issues like depression and anxiety can be easily treated. More complex mental health issues can also be resolved or at least contained if one seeks professional help."

"I have learned about mental health treatment in my classes and from family friends who have received mental health treatment. I learned that it is very beneficial to talk to a professional about what is going on in your life because then you are not keeping everything bottled up inside."

"I learned about mental health treatments in my psychology classes throughout my three years in college. I learned about cognitive behavioral treatment, medications, group therapy, family therapy, individual therapy, meditation, mindfulness activities."

What kinds of problems do you think people seek out mental health treatment for? "depression, anxiety, other mental disorders"

"Depression, anxiety, bipolar disorder, etc.. Family problems, victim of sexual assault, victim of physical or verbal abuse."

"Depression, anxiety, eating disorders and sometimes just needing someone unbiased to talk to about life."

"family/relationship problems, anxiety, depression."

"Anything and everything."

"I think Depression is the most known problem."

To the best of your knowledge, what do you think mental health treatment consists of? "Going to therapy and getting the help you need and then if needed going to a psychiatrist for medication."

"I feel like it depends on the person and their situation. I feel like there is usually a recount of events of some sort in that person's life whether it be orally or through the engagement in activities. It's a slow but steady process that builds up more and more with every session."

"talk about ones feelings and how to control certain types of feelings like anxiety."

"problem solving skills, being positive."

"Talk, possibly get prescriptions."

"Therapy, talking, medication."

How effective do you believe mental health treatment can be? Why?

"Mental health treatment can be effective by sharing emotions being built up. Mental health treatment can be helpful for people with mental illness. People can get certain therapy treatment or medication."

"very effective."

"I believe that mental health treatment can always benefit someone going through anything, but I think it is impossible to put that mental illness to a final cure. Anyone seeking mental health treatment will always have their dark days and nothing can fix that, it makes them human."

"That it's truly helpful for some people, but many people don't find it helpful nor do they want to try."

I think mental help treatment is only helpful if the individual allows it to be. If the individual is being forced into getting treatment or feels uncomfortable speaking about what is bothering them, it may be difficult for them to get the full benefits of treatment. I think if someone is really invested in understanding what is causing them to feel the way they do that mental health treatment will work." "Generally, I believe it is effective and can help people and they can improve happiness or get a feel for how to improve themselves. Those people get answers and or closure on questions they've had."

Knowledge/Experience about Accessing Services

Have you ever pursued mental health services before (i.e. counseling, therapy, etc.)? If so, what was your experience like?

"I have not."

"I personally have never sought out mental health services before but I have received a similar treatment from my mom seeing as she is a counselor." "Yes. I went to s psychoanalyst when I was younger. my experience was positive and helpful."

"I had therapy when my parents divorced and ever since then I felt It had a positive effect on me."

"yes. The current therapist i go to currently is the third that i've been to see. When i was younger, being in a psychiatrist's office really freaked me out and it was difficult to be comfortable with the situation. However, I've now gotten accustomed to the routine. I spend a lot of time talking about how my past week has gone and how many times I've felt stressed or anxious and what were the causes."

"No."

If you needed to see a mental health professional (i.e., a therapist, counselor, etc.) how would you go about doing so? What steps would you take?

"I would go to a therapist nearby for a consultation."

"find the nearest therapist, see insurance qualifies, call to ask questions and book appointment."

"I will look for a therapist, I will go directly to them and talk to them. I have learned that we should never take mental health issues lightly for any reason, even if it is mine."

"I would ask my primary care provider for help and how to go about it. Then I would begin to attend my sessions."

"maybe looking for recommendations from others."

"i may do some research on this approach before i meet with them."

How likely would you be to recommend mental health services to someone else? What would stop you from doing so? What would encourage you?

"if they really can't solve those difficult by themselves and these difficult already influence their regular life, i would encourage them to have some mental health services."

"I would do it. I would be hesitant if maybe they never spoke to me about problems they are facing. I would be encouraged if they asked for my help." "very much. a. if the person keeps saying that he or she does not need one. b. if i found him suffering from [some] things."

"I would be very likely to recommend mental health services to someone else. The only thing that would stop me would be confronting them about it and figuring out how to tell them. Seeing them struggle would encourage me to recommend [them] to go." "I would be pretty likely to recommend mental health services to someone else. The only thing that would stop me is knowing they cannot afford to or would take offense to me suggesting it. Knowing the person is struggling or going through a difficult time or that the services are readily available would encourage me to."

"likely if someone feels they need help id be open to lend them some help" What mental health services do you know of that are accessible to you?

"on campus we have therapist student scan talk to."

"A mental health service that is accessible to me is the student wellness center that is provided on campus. I do not know much about them but I would assume that they talk to students about how to deal with the stress of college life." "therapists, I am not sure of services or costs"

"I know I can see the university counselors for free if I schedule an appointment. I know there is also the suicide prevention hotline that is always available. Besides that, I would have to do some research to find other services."

"Counselors in school are helpful. There are also professional psychologists who specialize in these specific areas."

"i would call a therapist that accepts my insurance."

If you were to seek out mental health treatment, what would you want to know about it that would make you feel comfortable going?

"i would want to know that people wouldn't know that i was going."

"what are some possible outcomes after people seek mental health treatment."

"I would like to know how many people actually seek out treatment because people are so secretive about it that it makes you uncomfortable being seen going into therapy."

"I first would need to know if they accepted my medical insurance."

"that no judgement would be geared towards me."

"Therapist and Mental health care professionals that are of minority groups such as women of color."

Cultural beliefs about mental health and consumers of mental health

What beliefs does your cultural/ethnic group, or family, hold about persons who seek mental health treatment?

"My family is open to treatment, there is no harsh opinion about it."

"in my cultural, not many people will seek mental health treatment. may be 20-30 years ago, people who goes to a therapist will be considered as a crazy guy."

"My family believes that mental health treatment is a scam, and that you can do it yourself."

"my mom made me feel crazy she believes that a therapist is for the crazy." "My cultural/ethnic group and family believe that mostly sick and crazy people seek mental health treatment."

"My ethnic group does not really believe in mental health treatment. Although depression and suicide are big issues in South Korea, it is not readily discussed. People who seek mental health treatment are looked down upon and outcast." What beliefs or knowledge does your culture have about mental health problems? How would persons with mental health problems be treated?

"People with mental health problems are often ridiculed or avoided. Seeking treatment equates having problems and people refuse to associate with those who seek treatment. My culture does not have much knowledge about mental health problems and the society allows for many problems to arise such as suicidal thoughts or body dysmorphia."

"That if you go, you are sick."

"People with mental health problems would not be treated. You would just have to learn to deal with your ongoing situation or let it subside."

"They would be judged or they would brush it off like "nothing's wrong with you" and laugh about it. Sometimes people can also believe that just because you need mental health than you are instantly considered crazy." "they will be sent to a hospital."

"My family doesn't believe that mental illnesses run in the family, but I do. They believe that everyone has their own issues and that they cannot be passed down through family members even though there is evidence that proves otherwise. They also believe that mental problems should be treated with counseling and rarely every medication. I believe that counseling is important, but some mental illnesses require medication in order to see improvement."

How do these beliefs differ if a person is in a mental hospital versus someone who is getting treatment from their school's counseling center?

"There is not much of a difference."

"A mental hospital can cause a patient's symptoms to become worse due to seclusion, unknown medications, and the environment of other mental-ill people being the only possible friends available to the patient. School counseling is good because the counselors understand college life if stressful and they offer help without cost or medications."

"they'd be upset because why are you telling someone outside of your home for why you are going through these problems."

"A hospital to people seems more scary and serious."

"when a person is in a hospital the problems they have may seem more tangible and people can see that it's a problem compared to going to a counseling center it's not as tangible as being in a hospital."

"Mental hospitals get medicine while treatment centers don't."

If you were to seek mental health treatment, or have a mental health problem, what consequences would you be wary of if someone in your family or cultural group found out? How would others treat you?

"I would be wary of my parents like cutting off ties from me like just not really treating me properly and then belittling me as well and also I think others would just be kind of like telling me to get over it and not taking my issue seriously." "I would be worried that they would judge me and think that there is something wrong with me."

"kicked out from home."

"I don't think my close friends and family would treat me differently, but others who are not close to me may have comments like everyone else who doesn't understand what is going on."

"I would not be worried because my family would support me. However, as a male I would probably not want to disclose that information because in this day in age the stigma is that men are supposed to be tough and I feel I would be looked at differently if I told others about my mental health issues."

"That they would look at me different and I'd be seen as messed up or weird." Growing up, what did you learn about persons who seek out mental health treatment?

"I learned in school. I never heard about any clichés or stereotypes."

"I did not learn much about mental health treatment prior to speaking about it in classes."

"I learned that they have issues."

"I learned that those who seek out mental health problems have anger issues or they are "crazy". I learned it from those in my ethnic groups and my family." "they must have experience something horrible, on tv"

"People who seek help are strong. I learned it from my mother, she's never been against it."

How (if at all) does you culture talk about common mental health problems, such as depression and anxiety?

"Depression is seen as something that's just a myth. It's like a thought that just happens but doesn't really exist."

"They don't. I once mentioned to my mom that I have severe anxiety and she responded with doesn't everyone. My own doctor told me to seek a therapist so I could learn to deal with my nervous habits and she wouldn't even consider the idea. Another time I mentioned the idea of people being depressed and she told me that I didn't have anything to be upset over since I had everything handed to me and the basic utilities I needed to survive."

"That they are common. it may not be your fault, but biologically it can occur." "My culture rarely talks about them."

"They just make it like it's not real."

"They don't really talk about it because they like to pretend it doesn't exist."

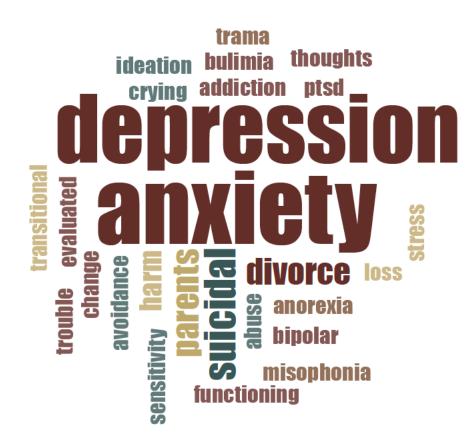


Figure 1. Visual Representation (Word Cloud) of presenting problems for persons who sought therapy by frequency

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