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UNIVERSITY OF CALIFORNIA,
IRVINE

The Impact of Psychotic-Like Experiences on Perceived Need for Care, Interest in Care, and Barriers to Care in the United States

THESIS

submitted in partial satisfaction of the requirements
for the degree of

MASTER OF ARTS

in Social Ecology

by

Miranda Austin Stiles Bridgwater

Thesis Committee:
Professor Jason Schiffman, Chair
Associate Professor Elizabeth Martin
Associate Professor Stephen Schueller

2023

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ABSTRACT OF THE THESIS

The Impact of Psychotic-Like Experiences on Perceived Need for Care, Interest in Care, and Barriers to Care in the United States

by

Miranda Austin Stiles Bridgwater
Master of Arts in Social Ecology
University of California, Irvine, 2023
Professor Jason Schiffman, Chair

Psychotic-like experiences (PLEs) are more prevalent in the general population than psychotic disorders and have been associated with increased risk for later psychotic disorders and perceived need for mental health treatment. Studies examining barriers to care among youth and young adults experiencing PLEs have reported that stigma, beliefs about care, and cost of services are among some of the most commonly reported barriers. The majority of the relevant literature in this area is based on international samples (i.e., not from the United States), which may not fully generalize to US samples given the differences in health care systems. The current study sought to explore the associations between PLEs and perceived need for care, interest in care, and barriers to care among young adults living in the United States. Participants (n = 931) were recruited from two universities and completed an online measure of mental health care utilization (MHCU) and the PRIME. PLEs were significantly and positively associated with self-perceived need for care, need for care perceived by others, and interest in seeking mental health care (all ps < .05). Individuals reporting PLEs above a pre-established clinical cutoff were significantly more likely to endorse stigma as a barrier to care than those without PLEs. All

results remained statistically significant when age, gender identity, and race were entered as covariates. Although PLEs were statistically significantly associated with all MHCU outcome variables, PLEs alone accounted for a small portion of the variance or had small effect sizes, suggesting that though PLEs do impact MHCU, PLEs are not the only factor impacting MHCU. Future work should seek to explore how PLEs and MHCU change longitudinally, in addition to exploring these variables in community samples to increase generalizability of the results.

INTRODUCTION

Psychotic-like experiences (PLEs) are subthreshold expressions of psychosis that may include things like hearing one's name being called when no one is there or seeing shadowy figures or movement out of the corner of one's eye. Individuals who endorse PLEs are at increased risk for later transition to a psychotic disorder, with one study estimating that youth with PLEs are at a four times greater risk of later psychotic disorder and three times greater risk of other serious mental illness than individuals without PLEs (Healy et al., 2019). Though PLEs are, by definition, less distressing and impairing than full-threshold psychosis, many individuals who experience PLEs report some degree of distress and/or negative impacts on functioning (Armando et al., 2010, 2012; Oh et al., 2018; Yung et al., 2006, 2009). Individuals with PLEs are also more likely to rate their own mental health as being "fair" or "poor" than those without PLEs (Lewis-Fernández et al., 2009). Collectively, there is a robust literature suggesting that PLEs represent mental health symptoms that may warrant mental health care (MHC). It is possible that some of the potentially negative outcomes associated with PLEs may be addressed through the use of MHC services, but it is currently unclear as to what proportion of people with PLEs have clinically relevant experiences, if they are utilizing MHC, and if not, what is preventing them from doing so.

Mental Health Care Utilization and PLEs

In terms of understanding how frequently young people with PLEs utilize MHC and from where they obtain MHC, there is mixed evidence. One meta-analysis and systematic review of 13 international studies of self-reported PLEs and MHC utilization found that among 73,125 individuals in the general population, those who endorsed PLEs were about twice as likely to utilize MHC than individuals without PLEs (Bhavsar et al., 2018). In a sample of 177 college

students reporting elevated PLEs, PLEs were positively associated with both lifetime and current utilization of MHC (Petti et al., 2021). DeVylder and colleagues (2014) reported that 30% of their large general population sample who endorsed PLEs also endorsed using MHC in the 12-months prior to the study. Moreover, the remaining individuals in the PLE group who were *not* utilizing services were statistically more likely to report a self-perceived need for MHC and to have been encouraged by others to seek MHC, suggesting an unmet clinical need. What remains unclear from this study (and others) is what percentage of individuals experiencing PLEs may benefit from seeking treatment to address these experiences and other mental health concerns. Without understanding the proportion of individuals endorsing PLEs who may benefit from services versus those who may not (due to lack of distress, impairment, or fixation), it is difficult to interpret the clinical utility of rates of utilization of mental health care services among this population.

Perceived Need for Care, Interest in Care, Intention to Seek Care, and PLEs

The actual proportion of people reporting PLEs who are *in need* of mental health care services for those experiences remains unclear in the literature, in part due to our current assessment practices. Some authors have assessed factors such as *perceived need* for care and *intent to seek* treatment among those with PLEs as a preliminary way of identifying individuals who may be in need of care. Petti and colleagues (2021) found that among a racially diverse sample of 177 college students endorsing high levels of PLEs (i.e., more severe), PLEs were a significant predictor of higher intent to seek treatment. In another study (Bridgwater et al., 2023), total PLE scores were significantly associated with higher intent to seek treatment among a large sample of currently non-help seeking sample of adolescents and young adults when accounting for the effects of anxiety and depression symptoms. As described above, individuals endorsing

PLEs may be more likely to self-perceive a need for care and to have been encouraged by others to seek care (DeVylder et al., 2014). In an additional study, auditory disturbance PLEs were significantly associated with a self-perceived need for MHC when accounting for the effects of other forms of psychopathology (e.g., depression and anxiety; Demmin et al., 2017). Though intention to seek treatment and perceived need for treatment are likely closely related, it is suggested that interest and intent to seek treatment may capture stages of service utilization decision making that are slightly beyond that of perceived need for treatment; in other words, measures of interest in or intent to seek treatment may capture individuals who are closer to actual utilization of MHC than those endorsing a perceived need (by themselves or by others) for MHC. In order to understand how individuals with PLEs progress from perceived need for and intent to seek services to utilization of services, it is important to consider barriers to care that may prevent individuals from receiving services *despite* a perceived need and intent to utilize.

Barriers to Utilizing MHC among those with PLEs

Few studies have attempted to explicitly identify barriers to utilizing care among individuals endorsing PLEs. In one study, individuals who were not currently help-seeking were asked to report their reasons for not seeking treatment (DeVylder et al., 2014). Among 250 individuals reporting PLEs who were not seeking treatment, 50% reported that they "did not have a problem" and 40% felt that they "could handle the problem" on their own. In another large sample of undergraduates, 281 reported not seeking care from a psychologist or psychiatrist despite feeling a need to in the prior 12 months, with the most cited reasons being stigma (28%), cost (26%), and mistrust (25%; Armando et al., 2012). Given the limited nature of this research in people with PLEs, other studies of individuals with related but more severe conditions, such as being at clinical high risk for psychosis and in a first psychotic episode, report stigma as a

commonly endorsed barrier to seeking care (Ben-David et al., 2019; Gronholm et al., 2017; Xu et al., 2016; Yarborough et al., 2019). Other factors, such as medical mistrust (LaVeist et al., 2009) and logistical barriers related to the health care system in the United States (Sareen et al., 2007; Walker et al., 2015) are likely to impact the likelihood of utilization as well, though these factors have not been studied among individuals reporting PLEs. Though limited, existing research from across the psychosis-spectrum suggests that stigma may be a particularly relevant barrier for young people with PLEs. Assessing a broad range of treatment-seeking barriers among this population may allow the field to increase the accessibility of existing services and/or adapt public health messaging regarding treatment seeking and utilization.

Limitations of the Existing MHCU Literature

The majority of the literature which explores associations between psychotic-like experiences and domains of mental health care utilization come from international samples (e.g., (Bhavsar et al., 2017, 2018; Murphy et al., 2012; van Nierop et al., 2012). A literature search identified only four published studies of PLEs and MHCU originating from samples recruited in the United States (Barragán et al., 2016, Demmin et al., 2017; DeVylder et al., 2014; Petti et al., 2021). This distinction is important as there are factors specific to the United States health care system, such as privatized health insurance and health care provider organization structures (e.g., HMOs; Ridic et al., 2012), that likely limit the degree to which relevant findings from international (non-U.S.) samples generalize to U.S. populations.

Study Aims & Hypotheses

This study aimed to address these U.S.-specific gaps in the understanding of MHCU in people with PLEs using a new tool called the Mental Health Care Utilization Questionnaire

(MHCU-Q). Specifically, this study aimed to 1) examine the association between PLEs and self-perceived need for care and need for care perceived by others, 2) assess differences in interest in seeking mental health treatment between young adults who endorse PLEs and those who do not, and 3) identify differences in the most commonly endorsed barriers to receiving and seeking MHC between those who endorse PLEs and those who do not. It was hypothesized that:

1. There will be a positive association between PLEs and a) self-perceived need for care and b) need for care perceived by others, such that higher PLEs will predict self-perceived need for care and need for care perceived by others.
2. There will be a positive association between PLEs and interest in seeking treatment, such that higher levels of PLEs will predict higher interest in seeking treatment.
3. Individuals endorsing PLEs above an established clinical threshold will be more likely to endorse stigma as a barrier to seeking services relative to individuals reporting PLEs below threshold, but logistical factors will be equally endorsed across PLE-groups (PLE-Positive and PLE-Negative).

    3a. Endorsement of remaining barriers to care (personal beliefs, family factors, and medical mistrust) will be equivalent across PLE groups; however, due to the lack of previous research on this topic within PLEs, this is an exploratory hypothesis.

METHOD

Data were collected from November 2020 to December 2022 through Qualtrics, an online self-report survey platform. All participants were recruited through Sona psychology participant pools at two public universities in the United States, University of Maryland, Baltimore County (UMBC) and University of California, Irvine (UCI). Participants were compensated with one

unit of extra credit in their psychology course through Sona. Participants were required to digitally sign an informed consent document (UMBC) or indicate they understood the study information sheet (UCI). This study was approved by the respective IRBs of UMBC and UCI.

Participants

Participants in this study included undergraduate students at two public universities in Baltimore, Maryland and Irvine, California. All participants indicated that they: 1) were 18 years of age or older, 2) able to read and understand English, and 3) had strong enough vision to complete an online survey that could last approximately 45 minutes (based on self-selection) to be eligible for the study. The sample that met these criteria included 959 participants after removing duplicates and abandoned responses (i.e., participants who opened the survey, consented, and did not proceed). Participants were additionally required to fill out all 12 items on the psychotic-like experiences screener to be included in the current analytic sample and report their age as 35 years or younger, of which there were 942. Two individuals were removed from the sample for outlier responses on the PRIME through visual inspection of a boxplot, and nine respondents identifying as Native Hawaiian/Pacific Islander or Native American/Indigenous were removed due to small sample size, bringing the analysis sample to 931 (97% of the total sample). Descriptive characteristics of the analysis sample can be found in Table 1.

Materials

Demographics

Demographic measures were collected at the onset of the study and included age, gender-identity, country of origin, years living in the United States, race, ethnicity, education, racial composition of current neighborhood, income, subjective social status (using MacArthur Social

Status Scale; Adler et al., 2000), insurance information, employment status and zip code. All items included a "Prefer not to respond" option. See Appendix A for the demographic items included prior to the questionnaire.

Mental Health Care Utilization Questionnaire (MHCU-Q)

The Mental Health Care Utilization Questionnaire (MHCU-Q) is a newly-created, self-report survey designed to assess three major domains of MHCU (Table 2): 1) mental health care utilization (lifetime and current, and types of services utilized), 2) perceptions towards services (perceived need for treatment, and interest in seeking services), and 3) service availability (accessibility factors and barriers to care). The present analyses focused on perceived need for MHC, intent to seek MHC, and barriers to care. There were over 20 response options, including a free text "other" response, of reasons for not seeking treatment. These response options were then clustered into five groups: beliefs about mental health treatment, stigma, logistical factors, family factors, and medical mistrust (Figure 1). Mental health care utilization (lifetime and current) was assessed using simple Yes/No/Prefer not to respond item responses. The measure is included in full (Appendix A).

Interest in seeking treatment was assessed with one item that asked participants to rate their agreement with the statement "I am interested in receiving mental health care services." on a 5-point Likert-type scale (1 "Disagree" to 5 "Agree"). Reasons for not seeking treatment were presented in two items and participants were asked to check all that apply. All items included a "Prefer not to respond" option. Though this measure has not yet been validated, most of the constructs captured by the items are manifest variables (i.e., directly observable) and display face validity.

Many of the items included in the MHCU-Q were built in Qualtrics using branching logic, to ensure that participants were not asked to respond to items that did not apply to them – for example, if participants reported no lifetime utilization of mental health care services, they were not asked to list the types of services or providers from which they sought help. The modal amount of time (in minutes) to complete the total self-report survey (including the demographics and clinical portion of the survey) was 13 minutes.

PRIME Psychotic-Like Experiences Screener

The PRIME is a 12-item measure that assesses the presence of psychotic-like experiences in the general population by asking respondents to rate how much they agree or disagree with various psychotic-like experiences in the past year (e.g., "I think I have felt that there are odd or unusual things going on that I can't explain.") on a 7-point Likert-type scale (0 "Definitely disagree" to 6 "Definitely agree"; Miller et al., 2004). A modified version of the PRIME, PRIME with Distress (*in progress*) was used in which participants are asked to rate how much they are distressed by the experience on the same 7-point Likert-type scale if they positively endorsed the PLE. All items included a "Prefer not to respond" option. The PRIME is one of the most commonly used self-report psychosis-risk screening measures that has demonstrated both psychometric reliability and validity with interview diagnoses of psychosis-risk (Kline et al., 2012).

Statistical Analyses

To address Hypothesis 1 (positive associations between PLEs and self-perceived need for care and need for care perceived by others), two binary logistic regressions were conducted in which total PRIME scores were entered as predictors of self-perceived need for care and need for

care perceived by others. These regressions were repeated with age, gender-identity, and race entered into the equations as covariates. To address Hypothesis 2 (positive association between PLEs and interest in seeking treatment), a linear regression in which total PRIME scores were entered as predictors of interest in seeking treatment was conducted. These regressions were repeated with age, gender-identity, and race entered into the equations as covariates. To address Hypothesis 3 and exploratory Hypothesis 3a (Individuals endorsing PLEs and those not endorsing PLEs will report different barriers to treatment, particularly stigma, which will be more frequently reported by those endorsing PLEs), the sample was divided into two groups (PLE-Positive and PLE-Negative) based on established clinical cut off scores on the PRIME. Simple frequencies and chi-square analyses were used to assess differences in the five domains of barriers to seeking/receiving treatment among individuals in the PLE-Positive (n = 270) and PLE-Negative (n = 461) groups. All analyses were conducted in SPSS Version 28.

RESULTS

PLEs, Self-Perceived Need for Mental Health Care, and Need Perceived by Others

Total PLEs were a statistically significant predictor of self-perceived need for mental health care among individuals who had never utilized mental health care services, such that higher PLEs predicted self-perceived need for care [$\chi 2(1, N = 485) = 4.18, p = .04$]. PLEs alone predicted 1.2% of the variance in self-perceived need for care and correctly classified 59% of cases. For every one-point increase in total PRIME scores (total PLEs), the odds of endorsing a self-perceived need for mental health care slightly increased (OR = 1.01, 95% CI [1.00, 1.02]). Total PLEs were also a statistically significant predictor of need for mental health care perceived by others, such that higher PLEs predicted need for care perceived by others [$\chi 2(1, N = 931) =$

10.00, $p = .002$]. PLEs alone predicted 1.5% of the variance in need for care perceived by others and correctly classified 54% of the cases. For every one-point increase in PRIME scores, the odds of endorsing a need for care perceived by others slightly increased (OR = 1.01, 95% [1.00, 1.02]). Results remained statistically significant when age, gender identity, and race were included as covariates.

PLEs and Interest in Mental Health Care

Total PLEs were a statistically significant predictor of interest in mental health care among respondents who were not currently treatment-seeking such that higher PLEs predicted higher interest in seeking mental health treatment ($F(1, 600) = 14.78$, $p < .001$). The magnitude of this effect was small (Cohen's $f = .03$; (Cohen, 1988)). This model predicted 2.2% of the variance in interest in mental health care. Results remained statistically significant when age, gender identity, and race were included as covariates.

PLEs and Differences in Barriers to Mental Health Care

Respondents who had utilized mental health care services in the past or endorsed a need for care ($n = 731$) were categorized as PLE-Negative ($n = 461$) and PLE-Positive ($n = 270$) based on established clinical cut-offs on the PRIME. Simple chi-square analyses comparing rates of endorsement of five categories of barriers to care (personal beliefs about mental health care, stigma, logistical factors, medical mistrust, and family beliefs about mental health care) by PLE status (PLE-Negative vs. PLE-Positive) were calculated. As hypothesized, the PLE-Negative and PLE-Positive groups endorsed logistical factors at statistically similar rates ($\chi2(1, N = 731) = 0.16$, $p = .75$), while the PLE-Positive group endorsed stigma as a barrier to treatment at higher rates than the PLE-Negative group (Figure 2; $\chi2(1, N = 731) = 8.85$, $p = .004$). The magnitude of

this difference was small (Cohen's $W = 0.11$; (Cohen, 1988)). Endorsement of the remaining barrier categories (personal beliefs about care, medical mistrust, and family beliefs about mental health care) were statistically similar (all ps > .05; see Figure 2).

DISCUSSION

This study is one of few to examine associations between PLEs and several domains of mental health care utilization among young adult college students living in the United States. Results suggest that PLEs are positively associated with self-perceived need for mental health care, need perceived by others, and interest in care among individuals who were not currently treatment-seeking, such that higher PLEs are associated with statistically significantly higher self-perceived need, need perceived by others, and interest in mental health care. In addition, this study provides preliminary support for the hypothesis that individuals reporting PLEs endorse higher rates of stigma as a barrier to seeking mental health care than those without PLEs, but the two groups experience logistical barriers at equivalent rates. The sizes of the effects were small, but provide evidence that PLEs may contribute to treatment seeking decision making and provide preliminary evidence that individuals reporting PLEs may experience different or more severe barriers to care (e.g., stigma) than individuals not reporting PLEs.

PLEs are Associated with Self-Perceived Need for Care and Need Perceived by Others

Total PLEs, as measured by the PRIME total score, was a statistically significantly predictor of self-perceived need for mental health care among respondents who had never utilized mental health care services and need for mental health care perceived by others. This is consistent with findings that individuals with PLEs from a large community sample were more likely to endorse need for mental health treatment and to have been encouraged by others to seek

treatment (DeVylder et al., 2014) and findings that auditory perceptual PLEs were significantly associated with need for care among college students, even when accounting for other mental health symptoms (Demmin et al., 2017).

While the present findings are in line with previous literature and remained statistically significant in the hypothesized direction when accounting for the effects of age, race, and gender identity, they should be interpreted with caution. Both models accounted for a small portion of the variance in self-perceived need for care and need perceived by others (1.2% and 1.5% respectively), suggesting that PLEs alone are not the only factors that impact one's perception of need for services or need perceived by others. The psychosis proneness-persistence-impairment model of psychosis posits that psychosis exists on a severity continuum and that factors such as PLE persistence, distress/impairment, cultural background, and comorbid psychopathology impacts the severity of psychosis-spectrum experiences and risk for conversion (van der Ven et al., 2020). These findings suggest that distress and culture may impact the association between PLEs and perceived need for care. In a study of non-help-seeking older adults reporting auditory verbal hallucinations, distress related to hallucinations at baseline was significantly associated with need for care at five-year follow up (Daalman et al., 2016), however this has not been thoroughly explored in young adults reporting PLEs. Sociocultural factors, like culture and religion can impact how individuals attribute or interpret their mental health symptoms, particularly psychosis-spectrum symptoms, and may impact treatment-seeking decision making (Singh et al., 2015). If, for example, an individual interprets a PLE as a religious experience rather than a clinically concerning symptom, they may be unlikely to attribute this experience to mental health and less likely to self-perceive a need for mental health care. Similarly, how cultural or religious attributions of PLEs impact perceived need for care or treatment-seeking

decision making has not yet been explored in individuals reporting PLEs in the United States. These findings provide preliminary support for the impact of PLEs on early mental health care seeking decision making, and also call attention to the need for consideration of other clinical (i.e., distress) and sociocultural factors when evaluating need for care.

PLEs are Associated with Higher Interest in Mental Health Care

Total PLEs, measured by the PRIME sum score, were also positively associated with self-rated interest in care among respondents not currently engaged in mental health treatment. These findings are consistent with studies conducted by Petti and colleagues (2021) and Bridgwater and colleagues (2023), which found that PLEs were associated with higher intent to seek care (or consideration of care) among samples of youth and young adults. While in the present study, the regression model predicted a small amount of the variance in interest in care (2.2%), the effect size of PLEs was medium-large (Cohen's $f = .03$), suggesting that PLEs play a significant role in influencing youth and young adult's interest in care, but they are not the only influential factor. Previous research found that racialized identity also impacts intent to seek treatment among young adults reporting PLEs, such that Asian/Asian American and Black/African American respondents reported significantly lower intent to seek future care than White/European Americans (Petti et al., 2021). This suggests PLEs may be impacting interest in mental health care for certain groups of young people (i.e., White/European Americans) more so than individuals who identify as historically marginalized or oppressed backgrounds. Factors such as mental health literacy and financial concerns are associated with delays in seeking mental health care among people experiencing psychosis (Marthoenis et al., 2016), however, the impact of these factors on interest in care have not yet been explored among individuals reporting PLEs in the United States. A model which considers clinical factors (i.e., PLEs),

sociocultural factors (e.g., race/ethnicity), and logistical factors (e.g., mental health literacy and financial concerns) may allow for a more comprehensive understanding of how mental health experiences like PLEs relate to interest in care, and more broadly, making decisions regarding ones' mental health treatment and care.

PLEs may be Associated with Different Barriers to Care

This is one of the first studies to explore barriers to care among young people reporting PLEs in the United States. Respondents in the PLE-Positive group were significantly more likely to endorse stigma than the PLE-Negative group, but endorsed other barriers, including logistical factors, at statistically equivalent rates. These results suggest that logistical factors are similarly endorsed as a barrier to care category among both groups, while stigma is more common among those in the PLE-Positive group. Placing these findings in the context of existing literature is difficult given that the relevant body of research is extremely limited, and the few studies which explore barriers to care among individuals reporting PLEs addressed a narrow range of barriers (DeVylder et al., 2014). Some of the most commonly reported barriers to care reported by participants in a large, nation-wide study of MCHU in US college students were barriers that would fall under the current conceptualization of personal beliefs regarding mental health care ("Prefer to deal with issues on my own," "Stress is normal," and "No need") and logistical factors ("Don't have enough time"; Eisenberg et al., 2011). The results of this study suggest that many college students experiencing a broad range of psychopathology and day-to-day stressors commonly experience personal beliefs about mental health care and logistical factors, regardless of type of psychopathology, however, this has yet to be explored in large, nationally representative studies comparing barriers across types of psychopathology.

While the PLE groups did not differ in rates of endorsement of medical mistrust, this may be partially explained by the fact that analyses were not conducted such that possible racial/ethnic group differences were addressed. Though individuals of all races, ethnicities, backgrounds, identities can experience mistrust of medical professionals and systems, medical mistrust is conceptualized as a social determinant contributing to mental health care disparities among historically and marginalized racial and ethnic groups specifically (Benkert et al., 2019). Given that pathological paranoia and suspiciousness are commonly endorsed psychosis-spectrum experiences, there is reason to believe that individuals endorsing PLEs may also endorse mistrust of the medical system – but these differences may be concealed if racial/ethnic identity is not considered. Assessing for differences in barriers to care both by PLE status and racial/ethnic identity, considering that these factors are disproportionately impacting certain groups, may provide a more nuanced understanding of the barriers faced by young people in need of mental health care.

Limitations

There are notable limitations to this study. Firstly, data collection began in November 2020, in the early months of the COVID-19 pandemic, which is known to have impacted and disrupted mental health care services. Though several months of data collection occurred after many COVID-19 restrictions were lifted and teletherapy became more popular, this should be kept in mind. Another such limitation relates to the gender diversity of the sample, which was over 80% female-identifying and may not reflect the mental health experiences of male-identifying or gender expansive populations. Similarly, some racial groups were unfortunately excluded from the present sample due to small sample size (i.e., Native Hawaiian/Pacific Islanders and Native American/Indigenous), which likely limits the generalizability of these

results. Given that all university students have access to university counseling centers, a convenience sample of university students may not reflect the treatment-seeking experiences of *all* young people living in the United States. Additionally, the novel measure of mental health care utilization used in this study, MHCU-Q, has not been comprehensively validated. It does, however, demonstrate face-validity.

Future Directions

Future work should strive to improve the generalizability of findings by administering the MHCU-Q and a psychosis-risk screening tool in community samples. Using a community sample may improve the generalizability of results both in terms of demographic factors (i.e., increasing recruitment of male-identifying individuals and diversifying recruitment across racial and ethnic groups) and by capturing the experiences of individuals seeking mental health care in community settings, rather than on college campuses. Longitudinal data collection of the MHCU-Q longitudinally rather than cross-sectionally would allow an exploration of how perceived need for care, interest in care, and change in PLEs may impact actual rates of MHCU over time. Future work should also explore if and how these mental health care domains (e.g., perceived need for care, interest in care) interact with accessibility factors, like insurance coverage, geographic location, immigration status, to impact rates of mental health care utilization among individuals reporting PLEs. As discussed above, future work should also examine how these MHCU factors and outcomes differ across racial and ethnic groups.

Conclusions

This study is among the few to study the association between multiple domains of MHCU and PLEs among young people living in the United States and the first to do so using a

novel measure of mental health care utilization, the MHCU-Q. PLEs were positively associated with increased odds of endorsing a self-perceived need for care and need for care perceived by others, in addition to higher interest in care, suggesting that PLEs may play an important role in the mental health care decision making processes of young people. Results suggest that individuals with PLEs may be more likely to experience stigma as a barrier to care, making stigma a possible candidate for public health intervention campaigns to increase rates of mental health care utilization in the early phase of psychosis risk.

Figure 1

Factors Contributing to Barriers to Care and Examples of Item Responses

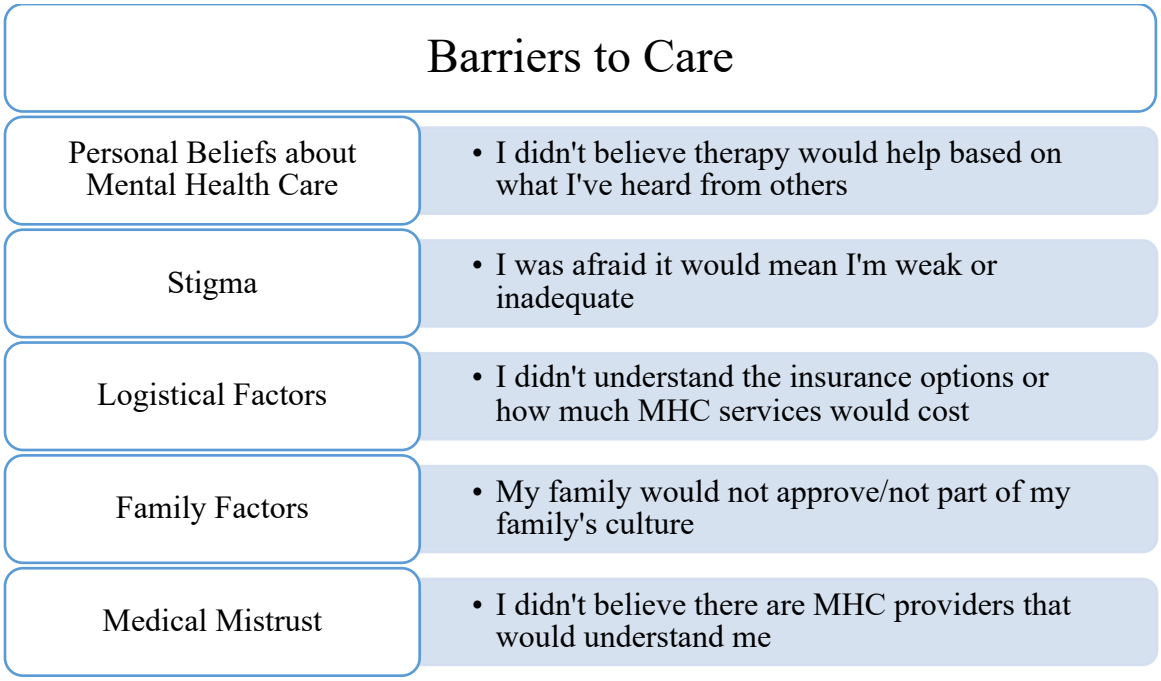
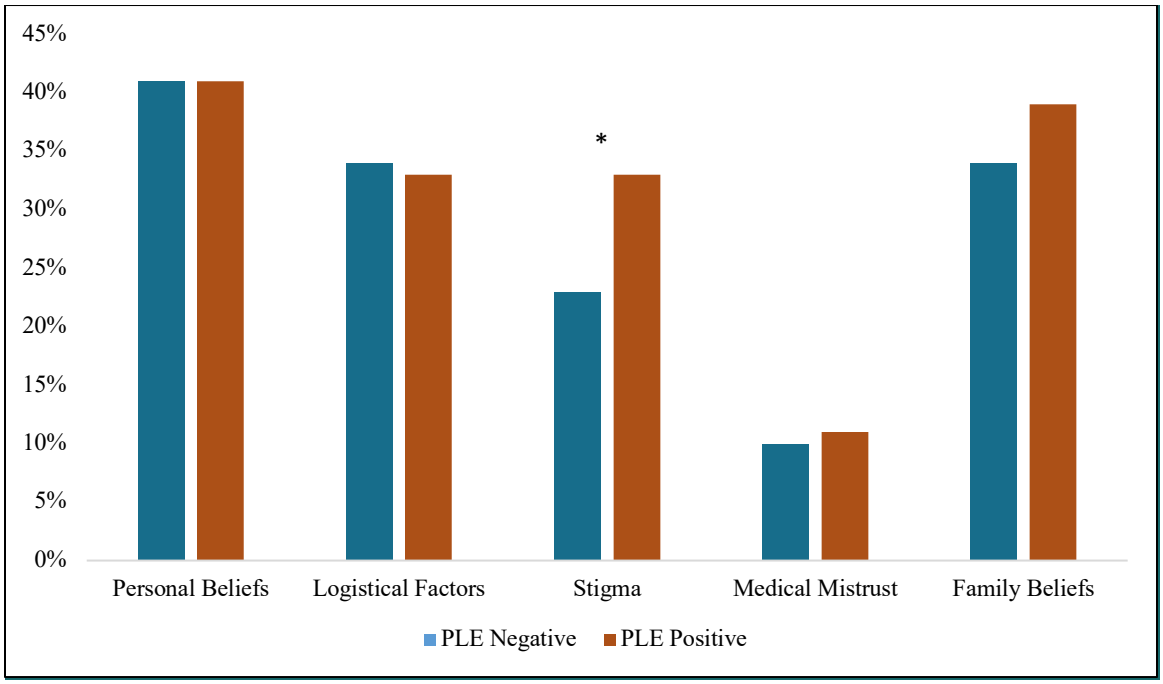


Figure 2

Differences in Rates of Endorsement of Barriers to Care Among Individuals with Previous MHCU and/or Perceived Need for Care (n = 731)



Note – * $\chi 2(1, N = 731) = 8.85, p = .004$

Table 1

Descriptive Characteristics of the Analysis Sample ($n_{analysis}$ = 931)

	Mean (SD)	**Skewness (SE)**	**Kurtosis (SE)**
Age	20.63 (2.50)	2.23 (.08)	6.91 (.16)
SES - US	5.35 (1.6)	-.12 (.08)	-.32 (.16)
SES - Community	5.35 (1.8)	-.12 (.08)	-.16 (.16)
PRIME Sum	17.71 (14.86)	.73 (.08)	-.30 (.16)
PRIME Distress Sum	17.31 (14.64)	.78 (.09)	-.24 (.17)
	***N*, %**		
Gender Identity		4.30 (.08)	29.64 (.16)
Female	756, 81%		
Male	149, 16%		
Gender Expansive (Transgender, Non-Binary)	23, 3%		
Prefer not to respond	3, <1%		
Ethnicity (Hispanic/Latino)	242, 26%	-.91 (.08)	-.80 (.16)
Race		.59 (.08)	-.95 (.16)
Asian/Asian American	384, 41%		
Black/African American	85, 9%		
MENA*	38, 4%		
Multiracial	92, 10%		
Other	64, 7%		
White/Caucasian	179, 19%		
Prefer not to respond	65, 7%		
Unknown	24, 3%		
Site		-1.13 (.08)	-.72 (.16)
UMBC	271, 29%		
UCI	660, 71%		

Note. *Middle Eastern/North African

Table 2

Domains included in the Mental Health Care Utilization Questionnaire and Example Items

Domain	Example items
Mental Health Care Utilization (lifetime and current, types of services used)	• Have you ever, including recently, received mental health care? • Are you currently receiving mental health care or have you received mental health care in the past two months? • Please select all the services and service providers from whom you've received care from the list below • What kind of care did you receive? Check all that apply.
Perceptions Towards MHC (perceived need for care, interest in seeking MHC)	• Was there ever a time that you ever felt you needed to seek mental health care services (MHC), but didn't? • Has anyone in your life suggested that you seek mental health treatment? • I am interested in receiving mental health care services. (Likert Scale, Disagree – Agree)
Service Availability (mental health care accessibility, barriers to care)	• Who in your life - family, friends, teachers - were most instrumental in helping you access mental health care services? • In general, if you had a mental health concern (feeling down/depressed, etc.), who would you go to? • What prevented you from reaching out for help? *(see Figure 1)* • What were the primary and secondary reasons that prevented you from reaching out for help?

REFERENCES

Adler, N. E., Epel, E. S., Castellazzo, G., & Ickovics, J. R. (2000). Relationship of subjective and objective social status with psychological and physiological functioning: Preliminary data in healthy, White women. *Health Psychology*, *19*(6), 586–592. https://doi.org/10.1037/0278-6133.19.6.586

Armando, M., Nelson, B., Yung, A. R., Ross, M., Birchwood, M., Girardi, P., & Nastro, P. F. (2010). Psychotic-like experiences and correlation with distress and depressive symptoms in a community sample of adolescents and young adults. *Schizophrenia Research*, *119*(1–3), 258–265. https://doi.org/10.1016/j.schres.2010.03.001

Armando, M., Nelson, B., Yung, A. R., Saba, R., Monducci, E., Dario, C., Righetti, V., Birchwood, M., Fiori Nastro, P., & Girardi, P. (2012). Psychotic experience subtypes, poor mental health status and help-seeking behaviour in a community sample of young adults: PEs, poor mental health and help-seeking behaviour. *Early Intervention in Psychiatry*, *6*(3), 300–308. https://doi.org/10.1111/j.1751-7893.2011.00303.x

Barragán, A., Yamada, A.-M., Lee, K. K., & Barrio, C. (2016). Correlates in the Endorsement of Psychotic Symptoms and Services Use: Findings from the Collaborative Psychiatric Epidemiology Surveys. *Community Mental Health Journal*, *52*(6), 631–642. https://doi.org/10.1007/s10597-015-9850-z

Ben-David, S., Cole, A. R., Brucato, G., Girgis, R., & Munson, M. R. (2019). A conceptual model of mental health service utilization among young adults at clinical high-risk for developing psychosis. *Psychiatric Rehabilitation Journal*, *42*(1), 17–25. https://doi.org/10.1037/prj0000336

Benkert, R., Cuevas, A., Thompson, H. S., Dove-Medows, E., & Knuckles, D. (2019). Ubiquitous Yet Unclear: A Systematic Review of Medical Mistrust. *Behavioral Medicine*, *45*(2), 86–101. https://doi.org/10.1080/08964289.2019.1588220

Bhavsar, V., Maccabe, J. H., Hatch, S. L., Hotopf, M., Boydell, J., & McGuire, P. (2017). Subclinical psychotic experiences and subsequent contact with mental health services. *BJPsych Open*, *3*(2), 64–70. https://doi.org/10.1192/bjpo.bp.117.004689

Bhavsar, V., McGuire, P., MacCabe, J., Oliver, D., & Fusar-Poli, P. (2018). A systematic review and meta-analysis of mental health service use in people who report psychotic experiences. *Early Intervention in Psychiatry*, *12*(3), 275–285. https://doi.org/10.1111/eip.12464

Bridgwater, M. A., Klaunig, M. J., Petti, E., Pitts, S. C., Rouhakhtar, P. R., Ered, A., Kuhney, F., Boos, A., Andorko, N. D., Ellman, L. M., Mittal, V., & Schiffman, J. (2023). The influence of psychotic-like experiences on intent to seek treatment: Findings from a multi-site community survey of mental health experiences. *Schizophrenia Research*, *260*, 30–36. https://doi.org/10.1016/j.schres.2023.07.028

Cohen, J. (1988). *Statistical Power Analysis for the Behavioral Sciences (2nd ed.)* (Vol. 2). Lawrence Erlbaum Associates.

Daalman, K., Diederen, K. M. J., Hoekema, L., van Lutterveld, R., & Sommer, I. E. C. (2016). Five year follow-up of non-psychotic adults with frequent auditory verbal hallucinations: Are they still healthy? *Psychological Medicine*, *46*(9), 1897–1907. https://doi.org/10.1017/S0033291716000386

Demmin, D. L., DeVylder, J. E., & Hilimire, M. R. (2017). Screening for sub-threshold psychotic experiences and perceived need for psychological services: Psychotic

experiences and need for services. *Early Intervention in Psychiatry*, *11*(2), 139–146. https://doi.org/10.1111/eip.12222

DeVylder, J. E., Oh, H. Y., Corcoran, C. M., & Lukens, E. P. (2014). Treatment Seeking and Unmet Need for Care Among Persons Reporting Psychosis-Like Experiences. *Psychiatric Services*, *65*(6), 774–780. https://doi.org/10.1176/appi.ps.201300254

Eisenberg, D., Hunt, J., Speer, N., & Zivin, K. (2011). Mental Health Service Utilization Among College Students in the United States. *The Journal of Nervous and Mental Disease*, *199*(5), 301–308. https://doi.org/10.1097/NMD.0b013e3182175123

Gronholm, P. C., Thornicroft, G., Laurens, K. R., & Evans-Lacko, S. (2017). Mental health-related stigma and pathways to care for people at risk of psychotic disorders or experiencing first-episode psychosis: A systematic review. *Psychological Medicine*, *47*(11), 1867–1879. https://doi.org/10.1017/S0033291717000344

Healy, C., Brannigan, R., Dooley, N., Coughlan, H., Clarke, M., Kelleher, I., & Cannon, M. (2019). Childhood and adolescent psychotic experiences and risk of mental disorder: A systematic review and meta-analysis. *Psychological Medicine*, *49*(10), 1589–1599. https://doi.org/10.1017/S0033291719000485

Kline, E., Wilson, C., Ereshefsky, S., Denenny, D., Thompson, E., Pitts, S. C., Bussell, K., Reeves, G., & Schiffman, J. (2012). Psychosis risk screening in youth: A validation study of three self-report measures of attenuated psychosis symptoms. *Schizophrenia Research*, *141*(1), 72–77. https://doi.org/10.1016/j.schres.2012.07.022

LaVeist, T. A., Isaac, L. A., & Williams, K. P. (2009). Mistrust of Health Care Organizations Is Associated with Underutilization of Health Services. *Health Services Research*, *44*(6), 2093–2105. https://doi.org/10.1111/j.1475-6773.2009.01017.x

Lewis-Fernández, R., Horvitz-Lennon, M., Blanco, C., Guarnaccia, P. J., Cao, Z., & Alegría, M. (2009). Significance of Endorsement of Psychotic Symptoms by US Latinos: *The Journal of Nervous and Mental Disease*, *197*(5), 337–347. https://doi.org/10.1097/NMD.0b013e3181a2087e

Marthoenis, M., Aichberger, M. C., & Schouler-Ocak, M. (2016). Patterns and Determinants of Treatment Seeking among Previously Untreated Psychotic Patients in Aceh Province, Indonesia: A Qualitative Study. *Scientifica*, *2016*, 1–7. https://doi.org/10.1155/2016/9136079

Miller, T. J., Cicchetti, D., Markovich, P. J., & Woods, S. (2004). The SIPS Screen: A brief self-report screen to detect the schizophrenia prodrome. *Schizophr Res*, *70*.

Murphy, J., Shevlin, M., Houston, J., & Adamson, G. (2012). A Population Based Analysis of Subclinical Psychosis and Help-Seeking Behavior. *Schizophrenia Bulletin*, *38*(2), 360–367. https://doi.org/10.1093/schbul/sbq092

Oh, H., Koyanagi, A., Kelleher, I., & DeVylder, J. (2018). Psychotic experiences and disability: Findings from the Collaborative Psychiatric Epidemiology Surveys. *Schizophrenia Research*, *193*, 343–347. https://doi.org/10.1016/j.schres.2017.07.049

Petti, E., Klaunig, M. J., Smith, M. E., Bridgwater, M. A., Roemer, C., Andorko, N. D., Chibani, D., DeLuca, J. S., Pitts, S. C., Schiffman, J., & Rakhshan Rouhakhtar, P. (2021). Mental health care utilization in individuals with high levels of psychosis-like experiences: Associations with race and potentially traumatic events. *Cultural Diversity and Ethnic Minority Psychology*. https://doi.org/10.1037/cdp0000500

Ridic, G., Gleason, S., & Ridic, O. (2012). Comparisons of Health Care Systems in the United States, Germany and Canada. *Materia Socio Medica*, *24*(2), 112. https://doi.org/10.5455/msm.2012.24.112-120

Sareen, J., Jagdeo, A., Cox, B. J., & Clara, I. (2007). Perceived Barriers to Mental Health Service Utilization in the United States, Ontario, and the Netherlands. *PSYCHIATRIC SERVICES*, *58*(3), 8.

Singh, S. P., Brown, L., Winsper, C., Gajwani, R., Islam, Z., Jasani, R., Parsons, H., Rabbie-Khan, F., & Birchwood, M. (2015). Ethnicity and pathways to care during first episode psychosis: The role of cultural illness attributions. *BMC Psychiatry*, *15*(1), 287. https://doi.org/10.1186/s12888-015-0665-9

van der Ven, E., Susser, E., Dixon, L. B., Olfson, M., & Gilmer, T. P. (2020). Racial-Ethnic Differences in Service Use Patterns Among Young, Commercially Insured Individuals With Recent-Onset Psychosis. *Psychiatric Services*, *71*(5), 433–439. https://doi.org/10.1176/appi.ps.201900301

van Nierop, M., van Os, J., Gunther, N., Myin-Germeys, I., de Graaf, R., ten Have, M., van Dorsselaer, S., Bak, M., & van Winkel, R. (2012). Phenotypically Continuous With Clinical Psychosis, Discontinuous in Need for Care: Evidence for an Extended Psychosis Phenotype. *Schizophrenia Bulletin*, *38*(2), 231–238. https://doi.org/10.1093/schbul/sbr129

Walker, E. R., Cummings, J. R., Hockenberry, J. M., & Druss, B. G. (2015). Insurance Status, Use of Mental Health Services, and Unmet Need for Mental Health Care in the United States. *Psychiatric Services*, *66*(6), 578–584. https://doi.org/10.1176/appi.ps.201400248

Xu, Z., Müller, M., Heekeren, K., Theodoridou, A., Dvorsky, D., Metzler, S., Brabban, A., Corrigan, P. W., Walitza, S., Rössler, W., & Rüsch, N. (2016). Self-labelling and stigma as predictors of attitudes towards help-seeking among people at risk of psychosis: 1-year follow-up. *European Archives of Psychiatry and Clinical Neuroscience*, *266*(1), 79–82. https://doi.org/10.1007/s00406-015-0576-2

Yarborough, B. J., Yarborough, M. T., & Cavese, J. C. (2019). Factors that hindered care seeking among people with a first diagnosis of psychosis. *Early Intervention in Psychiatry*, *13*(5), 1220–1226. https://doi.org/10.1111/eip.12758

Yung, A. R., Buckby, J. A., Cotton, S. M., Cosgrave, E. M., Killackey, E. J., Stanford, C., Godfrey, K., & McGorry, P. D. (2006). Psychotic-Like Experiences in Nonpsychotic Help-Seekers: Associations With Distress, Depression, and Disability. *Schizophrenia Bulletin*, *32*(2), 352–359. https://doi.org/10.1093/schbul/sbj018

Yung, A. R., Nelson, B., Baker, K., Buckby, J. A., Baksheev, G., & Cosgrave, E. M. (2009). Psychotic-Like Experiences in a Community Sample of Adolescents: Implications for the Continuum Model of Psychosis and Prediction of Schizophrenia. *Australian & New Zealand Journal of Psychiatry*, *43*(2), 118–128. https://doi.org/10.1080/00048670802607188

APPENDIX A: The Mental Health Care Utilization Questionnaire (MHCU-Q)

Mental Health Service Utilization Questionnaire (MHCU-Q)

Start of Block: Screener

Thank you for taking the time to complete this survey. We are interested in your experiences with mental health care services (MHC) and mental health providers. If there are any questions you would not like to answer, please choose the “prefer not to respond” option, or type “prefer not to respond” for any open-ended questions.
If you have any questions, please contact us at mbridgwa@uci.edu
The full survey should take you up to 45 minutes to complete. Please do not begin the survey unless you have 45 minutes to complete it uninterrupted.

*

Age What is your age (in years)?

_____

Eng How well can you READ and understand English?

- ○ Not at all (1)
- ○ A little or poorly (2)
- ○ Somewhat or fair (3)
- ○ Well (4)
- ○ Very well or excellent (5)

Vision Is your vision good enough to complete an online survey that lasts approximately 45 minutes?

- ○ Yes (1)
- ○ No (2)

End of Block: Screener

Start of Block: MHCU

site Are you a student at UMBC or UCI?

- ○ UMBC (1)
- ○ UCI (2)

gender With what gender do you most closely identify?

- ○ Female (1)
- ○ Male (2)
- ○ Non-binary/Third gender (3)
- ○ Trans female (4)
- ○ Trans male (5)
- ○ Prefer to self-describe (6)
- ○ Prefer not to respond (7)

gender2 Please describe your gender identity below:

If you prefer not to respond, please type "prefer not to respond."

_____

_____

_____

_____

_____

X→

country What is your country of origin (i.e., where were you born)?

▼ Afghanistan (1) ... Prefer not to respond (1358)

yrs_in_US How many cumulative years have you lived in the United States?

If less than 1 year, put "0"

_____

country_p1 In which country was parent or guardian 1 (e.g. mother, father or other guardian) born?

If adopted, please respond for adoptive parents/guardians.

▼ Afghanistan (1) ... Prefer not to respond (1358)

country_p2 In which country was parent or guardian 2 (e.g. mother, father or other guardian) born?

If adopted, please respond for adoptive parents/guardians.

Respond "N/A" if no second guardian.

▼ N/A - Not Applicable (1) ... Prefer not to respond (1358)

lang What is the primary language that you speak and understand (i.e., your language of origin or most fluent language?

If you prefer not to respond, please type "prefer not to respond."

_____

ethnicity How would you describe your ethnicity?

- ○ Of Hispanic, Latino, or Spanish origin (1)
- ○ Unknown whether Hispanic, Latino, or of Spanish origin (2)
- ○ Not of Hispanic, Latino or of Spanish Origin (3)
- ○ Prefer not to respond (4)

ethnicity2
If you chose "Of Hispanic, Latino or Spanish Origin," please specify (i.e., Cuban, Mexican, Puerto Rican, South or Central American, or other Spanish culture or origin, etc.):

If you prefer not to respond, type "prefer not to respond."

_____

sr_race What is your racial identity?

If you prefer not to respond, please type "prefer not to respond."

_____

_____

_____

_____

_____

race Please select all boxes that describe your race/ethnicity. If you identify with multiple racial identities, check all that apply.

- ☐ Asian, Asian-American, South Asian (1)
- ☐ Alaska Native (2)
- ☐ American Indian/Native American (3)
- ☐ Black or African-American (4)
- ☐ Middle Eastern/North African or Middle Eastern/North African-American (9)
- ☐ Native Hawaiian or Other Pacific Islander (8)
- ☐ White or Caucasian/European-American (5)
- ☐ Other Race or Ethnicity Not Listed (6)
- ☐ Unknown Race or Ethnicity (7)
- ☐ Prefer not to respond (10)

race2 You identified as Asian or Asian-American. Please select all that apply

- ☐ Asian-Indian or South Asian (1)
- ☐ Chinese (2)
- ☐ Filipino (3)
- ☐ Japanese (4)
- ☐ Korean (5)
- ☐ Vietnamese (6)
- ☐ Other Asian or Asian-American racial identity (specify below) (7)

race3 Please describe your Asian or Asian-American racial identity in your own words below.

If you prefer not to respond, please type "prefer not to respond."

_____

race4 Please describe your race or ethnicity in your own words below.

If you prefer not to respond, please type "prefer not to respond."

_____

_____

_____

_____

_____

race_comp What is the racial composition of the primary community in which you were raised (that is, the community in which you spent the most time during childhood and adolescence)?

- Mostly your own racial and ethnic background (1)
- A mixture of individuals of your own race or ethnicity and individuals of a different race or ethnicity (2)
- Mostly a different racial or ethnic background (3)
- I don't feel I can confidently answer this question (5)
- Prefer not to respond (4)

race_comp2 What is the racial composition of the community or area in which you currently live?

- Mostly your own racial and ethnic background (1)
- A mixture of individuals of your own race or ethnicity and individuals of a different race or ethnicity (2)
- Mostly a different racial or ethnic background (3)
- I don't feel I can confidently answer this question (5)
- Prefer not to respond (4)

living With whom do you live currently? Please select all that apply.

If your current living situation is different than your permanent living situation (example - you currently

live on campus, but you consider your parent's house to be your permanent living situation), please pick the options that best describe your *current* living situation.

- [ ] Grandparents/parents (1)
- [ ] Partner/spouse (2)
- [ ] Child(ren) (3)
- [ ] Other relative(s) (4)
- [ ] House/roommate(s) (5)
- [ ] Alone (6)
- [ ] Other (specify below) (7)
- [ ] Prefer not to respond (8)

---

living2 Please describe your current living situation:

If you prefer not to respond, please type "prefer not to respond."

_____

---

income What is the best estimate of your household's yearly income before taxes? By "household," we mean your parents' household if you live with them/they claim you as a dependent. If you live independently, please consider your own income only.

If you don't know, please estimate as best you can.

- ○ < $20,000 (1)
- ○ $20,000 - $39,999 (2)
- ○ $40,000 - $59,999 (3)
- ○ $60,000 - $79,999 (4)
- ○ $80,000 - $99,999 (5)
- ○ >= $100,000 (6)
- ○ Prefer not to respond (7)

Mac_US **Think of this ladder as representing where people stand in the United States.**

At the **top** of the ladder are the people who are the best off - those who have the most money, the most education and the most respected jobs. At the **bottom** are the people who are the worst off - who have the least money, least education, and the least respected jobs or no job. The higher up you are on the ladder, the closer you are to the people at the very top; the lower you are, the closer you are to the people at the very bottom.

Where would you place yourself on this ladder?

Please type a whole number in the box below that matches the rung on the ladder where you think you stand at this time in your life, relative to other people in the United States.

_____

Mac_Comm **Think of this ladder as representing where people stand in their communities.**

People define communty in different ways; please define it in whatever way is most meaninful to you. At the **top** of the ladder are the people who have the highest standing in their community. At

the **bottom** are the people who have the lowest standing in their community.

Where would you place yourself on this ladder?

Please type a whole number in the box below that matches the rung on the ladder where you think you stand at this time in your life, relative to other people in your community.

_____

pub_a Have you or your family ever been recipients of any of the following public assistance programs?

Please select all that apply.

- [ ] SNAP or food stamps (1)
- [ ] Supplemental Security Income (SSI) (2)
- [ ] Subsidized housing (3)
- [ ] Temporary Assistance for Needy Families (TANF) (4)
- [ ] Earned Income Tax Credit (EITC) (5)
- [ ] Medicaid (6)
- [ ] Medicare (7)
- [ ] Free school lunch programs (8)
- [ ] Head Start (9)
- [ ] Home energy assistance programs/utility assistance programs (10)
- [ ] Not applicable (13)
- [ ] Unknown/Not sure (12)
- [ ] Prefer not to respond (11)

jj_sys Did you ever have any involvement with the juvenile justice system or school resource officers when you were growing up?

- ○ Yes (1)
- ○ No (2)
- ○ Prefer not to respond (3)

---

ins Do you have health insurance?

- ○ Yes (1)
- ○ No (2)
- ○ Prefer not to respond (3)

---

ins2 What kind of health insurance do you currently have?

- [ ] Employee-sponsored insurance (from your own employer) (1)
- [ ] School sponsored insurance (2)
- [ ] Insurance through your parents' employer (3)
- [ ] Insurance through your spouse's employer (4)
- [ ] Public health insurance (e.g. Medicaid, Medicare, CHIP, etc.) (5)
- [ ] Other insurance (please describe below) (6)
- [ ] Prefer not to respond (7)

ins3 Please describe your health insurance below.

If you prefer not to respond, please type "prefer not to respond."

_____

p_edu1 Which of the following best describes your parent/guardian's (1) education or schooling?

If adopted, please respond for adoptive parents.

- ○ Less than high school (GED) (1)
- ○ High school (GED) (2)
- ○ Some college (3)
- ○ Associate's Degree or Trade School (2 year degree) (4)
- ○ Bachelor's Degree (4 year degree) (5)
- ○ Master's Degree (6)
- ○ Doctoral Degree (e.g. PhD, MD, JD, etc.) (7)
- ○ N/A (8)
- ○ Prefer not to respond (9)

p_edu2 Which of the following best describes your parent/guardian's (2) education or schooling?

If adopted, please respond for adoptive parents.

Respond "N/A" if no second parent or guardian.

- ○ Less than high school (GED) (1)
- ○ High school (GED) (2)
- ○ Some college (3)
- ○ Associate's Degree or Trade School (2 year degree) (4)
- ○ Bachelor's Degree (4 year degree) (5)
- ○ Master's Degree (6)
- ○ Doctoral Degree (e.g. PhD, MD, JD, etc.) (7)
- ○ N/A (8)
- ○ Prefer not to respond (9)

---

pt_edu Do you attend UMBC or UCI full-time (at least 12 credits for undergraduates, or 9 for graduate students) or part-time?

- ○ Full-time (1)
- ○ Part-time (2)
- ○ Prefer not to answer (3)

---

pt_emp Are you currently employed?

- ○ Yes (1)
- ○ No (2)
- ○ Prefer not to respond (3)

pt_emp2 Is your employment full-time (30 or more hours/week) or part-time?

- ○ Full-time (1)
- ○ Part-time (2)
- ○ Prefer not to respond (3)

zc_1 What is the zip code of the neighborhood in which you were raised?

If unknown, please tell us the city/town/county and state/country in which you spent the most time during childhood and adolescence.

If you prefer not to respond, please type "0."

_____

zc_curr What is the zip code where you currently live?

If you prefer not to respond, please type "0."

____

Page Break

mh_do
What do you think mental health care providers do?

If you prefer not to respond, please type "prefer not to respond."

_____

_____

_____

_____

_____

mh_list Please list as many types of mental health care providers as you can.

If you prefer not to respond, please type "prefer not to respond."

- ○ Mental Health Care Provider #1 (4) _____
- ○ Mental Health Care Provider #2 (5) _____
- ○ Mental Health Care Provider #3 (6) _____
- ○ Mental Health Care Provider #4 (7) _____
- ○ Mental Health Care Provider #5 (8) _____
- ○ Mental Health Care Provider #6 (9) _____
- ○ Mental Health Care Provider #7 (10) _____
- ○ Mental Health Care Provider #8 (11) _____
- ○ Mental Health Care Provider #9 (12) _____
- ○ Mental Health Care Provider #10 (13) _____
- ○ Mental Health Care Provider #11 (14) _____
- ○ Mental Health Care Provider #12 (15) _____
- ○ Mental Health Care Provider #13 (16) _____
- ○ Mental Health Care Provider #14 (17) _____
- ○ Mental Health Care Provider #15 (18) _____
- ○ Mental Health Care Provider #16 (19) _____

○ Mental Health Care Provider #17 (20)
_____

○ Mental Health Care Provider #18 (21)
_____

○ Mental Health Care Provider #19 (22)
_____

○ Mental Health Care Provider #20 (23)
_____

mh_fam Please choose how much you agree with the following statements:

	Disagree (1)	Slightly Disagree (2)	Neutral (3)	Slightly Agree (4)	Agree (5)	Prefer not to respond (6)
My family is generally supportive of using mental health care services (1)	○	○	○	○	○	○
My family is generally supportive of my emotional well-being. For example, if I'm sad, I can depend on my family for support. (2)	○	○	○	○	○	○
I feel like my family is generally supportive of me (e.g. of my career goals, my education, etc.) (6)	○	○	○	○	○	○

mf_life Have you ever, including recently, received mental health care?

- ○ Yes (1)
- ○ No (2)
- ○ Prefer not to respond (3)

mh_life2 Please select all the services and service providers from whom you've received care from the list below:

- [ ] Psychologist (in the community) (1)
- [ ] Psychologist (at a school or university) (2)
- [ ] Social worker (3)
- [ ] Psychiatrist (4)
- [ ] Crisis line (5)
- [ ] Emergency department for mental health crisis (6)
- [ ] Primary Care Physician (PCP)/General Practitioner (GP) for mental health care (7)
- [ ] Nurse (8)
- [ ] Nurse Practitioner (9)
- [ ] Court-mandated treatment (10)
- [ ] Juvenile Justice/Child Welfare System mandated treatment (18)
- [ ] Substance use clinic/rehab (11)
- [ ] Counselor for mental health reasons (12)
- [ ] Religious leader for mental health concern (13)
- [ ] Community leader for mental health concern (14)

- [ ] Peer support specialist (19)
- [ ] Specialty clinic (please describe below) (15)
- [ ] Other (please describe below) (16)
- [ ] Prefer not to respond (17)

mh_life3 Please describe the specialty clinic from which you received services.

If you prefer not to respond, please type "prefer not to respond."

_____

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mh_life4 Please describe any other mental health services or service providers from whom you've received mental health treatment.

If you prefer not to respond, please type "prefer not to respond."

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mh_life5 What kind of care did you receive? Check all that apply.

- ☐ Individual talk therapy/psychotherapy (1)
- ☐ Group therapy (2)
- ☐ Employee Assistance Program (EAP) (3)
- ☐ Medication (4)
- ☐ Case management/social work (5)
- ☐ Inpatient hospital care (6)
- ☐ Emergency/crisis care (7)
- ☐ Other (please describe below) (8)
- ☐ Prefer not to respond (9)

mh_life6 Please describe any other treatment you received.

If you prefer not to respond, please type "prefer not to respond."

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meds_ever Have you ever taken psychiatric medications or medications to help you with your mood, stress, sleep etc.?

- ○ Yes (1)
- ○ No (2)
- ○ Prefer not to respond (3)

meds_ever2 Please answer the following questions:

	Never (1)	Rarely (2)	Sometimes (3)	Often (4)	Always (5)	Prefer not to respond (6)
Did you ever forget to take your medications? (1)	○	○	○	○	○	○
Were you careless at times about taking your medication? (2)	○	○	○	○	○	○
When you felt better, did you sometimes stop taking your medications? (3)	○	○	○	○	○	○
Sometimes, if you felt worse when taking your medication, did you stop taking it? (4)	○	○	○	○	○	○

meds_curr Are you currently taking any psychiatric medications or medications to help you with your mood, stress, sleep, or have you taken any psychiatric medications in the past two months?

- ○ Yes (1)
- ○ No (2)
- ○ Prefer not to respond (3)

meds_type What psychiatric medications are you currently taking? If you know the name of the medications, please write them in the boxes below.

If you prefer not to respond, please type "prefer not to respond."

- Psychiatric Medication 1 (1) _____
- Psychiatric Medication 2 (2) _____
- Psychiatric Medication 3 (3) _____
- Psychiatric Medication 4 (4) _____
- Psychiatric Medication 5 (5) _____
- Psychiatric Medication 6 (6) _____
- Psychiatric Medication 7 (7) _____
- Psychiatric Medication 8 (8) _____
- Psychiatric Medication 9 (9) _____
- Psychiatric Medication 10 (10) _____

inp_hc When you received inpatient hospital care for a mental health crisis, did you admit yourself, or did someone else admit you?

- I admitted myself (1)
- Someone else admitted me (2)
- I don't feel I can confidently answer the question (4)
- Prefer not to respond (3)

inp_hc2 In your own words, how would you describe the inpatient or emergency/crisis treatment you received?

For example, we're wondering if you found the treatment helpful or not. Did you have a positive or negative experience with your treatment team?

If you prefer not to respond, please type "prefer not to respond."

_____

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mh_age How old were you (in years) when you first sought mental health treatment?

Type number below.

_____

mh_who Who in your life - family, friends, teachers - were most instrumental in helping you access mental health care services?

- [ ] Friend - in person (1)
- [ ] Friend - online (4)
- [ ] Parent (5)
- [ ] Teacher/professor/teaching assistant (6)
- [ ] Other family member (7)
- [ ] Residence hall staff (Resident Assistant) (12)
- [ ] Romantic partner (8)
- [ ] Other (please describe) (9)
- [ ] No one helped me access mental health care services (10)
- [ ] Prefer not to respond (11)

mh_who2 Who else in your life was most instrumental in helping you access mental health care services? Please describe below.

If you prefer not to respond, type "prefer not to respond."

_____

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mh_no Was there ever a time that you ever felt you needed to seek mental health care services (MHC), but didn't?

- Yes (1)
- No (2)
- Prefer not to respond (3)

mh_no2 Why didn't you seek treatment at that time? Select all that apply.

- ☐ I believed I could handle the problem by myself (1)
- ☐ I did not believe I had a problem (17)
- ☐ I didn’t have time (2)
- ☐ I didn’t believe medication would help based on past experiences with providers (3)
- ☐ I didn’t believe therapy would help based on past experiences with providers (26)
- ☐ I didn’t believe medication would help based on what I’ve heard from others (18)
- ☐ I didn’t believe therapy would help based on what I’ve heard from others (27)
- ☐ I didn’t believe that medication would help me specifically (19)
- ☐ I didn’t believe therapy would help me specifically (28)
- ☐ I didn’t understand the insurance options or how much MHC services would cost (6)
- ☐ I had insurance but MHC still costs too much (5)
- ☐ I didn’t have adequate insurance (4)
- ☐ I didn’t know how to find MHC services/ I don’t know what kind of services to look for (7)
- ☐ I didn't believe in psychiatry/MHC services (20)
- ☐ I was afraid of being hospitalized (21)

- [ ] I was afraid of taking psychiatric medications (22)
- [ ] Other (please specify below) (29)
- [ ] Prefer not to respond (13)

Q129 Please describe why you did not seek treatment at that time.

If you prefer not to respond, please type "prefer not to respond."

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_____

_____

_____

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mh_no3 Why else did you not seek treatment at that time?

- [ ] I was afraid of the stigma (I'm afraid of being judged or that people will think I'm crazy) (1)
- [ ] I was afraid it would mean I'm crazy (4)
- [ ] I was afraid it would mean I'm weak or inadequate (5)
- [ ] My family wouldn't approve/not part of my family's culture (6)
- [ ] I didn't think I can trust MHC providers (7)
- [ ] I didn't believe there are MHC providers that would understand me (8)
- [ ] I thought it would be difficult to find MHC providers that look like me or have my background (e.g. cultural, racial, ethnic) (9)
- [ ] I preferred to seek help from a faith-based source (pastor, church, faith-based leader or support group) (10)
- [ ] I preferred to seek help from a culture-focused source (cultural organization, entity or group) (11)
- [ ] I believed that the cause of my problems was not actually "mental health" or illness—for example, the problem was some other stressor in my life that needed to be dealt with and mental health providers would not be able to address (12)
- [ ] Other (please specify below) (13)
- [ ] Prefer not to respond (14)

mh_4 Please describe why else did you not seek treatment at that time.

If you prefer not to respond, please type "prefer not to respond."

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Q131 What was the primary reason you did not seek treatment at that time?

- ○ I believed I could handle the problem by myself (1)
- ○ I did not believe I had a problem (19)
- ○ I didn't have time (2)
- ○ I didn't believe medication would help based on past experiences with providers (20)
- ○ I didn't believe therapy would help based on past experiences with providers (29)
- ○ I didn't believe medication would help based on what I've heard from others (30)
- ○ I didn't believe therapy would help based on what I've heard from others (31)
- ○ I didn't believe that medication would help me specifically (32)
- ○ I didn't believe therapy would help me specifically (21)
- ○ I didn't understand the insurance options or how much MHC services would cost (6)
- ○ I had insurance but MHC still costs too much (5)
- ○ I didn't have adequate insurance (4)
- ○ I didn't know how to find MHC services/ I don't know what kind of services to look for (7)
- ○ I didn't believe in psychiatry/MHC services (23)
- ○ I'm afraid of being hospitalized (24)
- ○ I'm afraid of taking psychiatric medications (25)
- ○ I was afraid of the stigma (I'm afraid of being judged or that people will think I'm crazy) (8)
- ○ I was afraid it meant I'm crazy (9)
- ○ I was afraid it would mean I'm weak or inadequate (10)
- ○ My family wouldn't approve/not part of my family's culture (11)

- ○ I didn’t think I can trust MHC providers (12)
- ○ I didn’t believe there are MHC providers that would understand me (16)
- ○ I thought it would be difficult to find MHC providers that look like me or have my background (e.g. cultural, racial, ethnic) (17)
- ○ I preferred to seek help from a faith-based source (pastor, church, faith-based leader or support group) (26)
- ○ I preferred to seek help from a culture-focused source (cultural organization, entity or group) (27)
- ○ I believed that the cause of my problems is not actually “mental health” or illness—e.g. problem is some other stressor in my life that needs to be dealt with and MHC providers would not be able to address (28)
- ○ Other (please specify below) (14)
- ○ Prefer not to respond (15)

Q133 Please describe the primary reason you did not seek treatment at that time.

If you prefer not to respond, please type "prefer not to respond."

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Q134 What was the secondary reason you did not seek treatment at that time?

- ○ I believed I could handle the problem by myself (1)
- ○ I did not believe I had a problem (19)
- ○ I didn't have time (2)
- ○ I didn't believe medication would help based on past experiences with providers (20)
- ○ I didn't believe therapy would help based on past experiences with providers (29)
- ○ I didn't believe medication would help based on what I've heard from others (30)
- ○ I didn't believe therapy would help based on what I've heard from others (31)
- ○ I didn't believe that medication would help me specifically (32)
- ○ I didn't believe therapy would help me specifically (21)
- ○ I didn't understand the insurance options or how much MHC services would cost (6)
- ○ I had insurance but MHC still costs too much (5)
- ○ I didn't have adequate insurance (4)
- ○ I didn't know how to find MHC services/ I don't know what kind of services to look for (7)
- ○ I didn't believe in psychiatry/MHC services (23)
- ○ I'm afraid of being hospitalized (24)
- ○ I'm afraid of taking psychiatric medications (25)
- ○ I was afraid of the stigma (I'm afraid of being judged or that people will think I'm crazy) (8)
- ○ I was afraid it meant I'm crazy (9)
- ○ I was afraid it would mean I'm weak or inadequate (10)
- ○ My family wouldn't approve/not part of my family's culture (11)

- ○ I didn’t think I can trust MHC providers (12)
- ○ I didn’t believe there are MHC providers that would understand me (16)
- ○ I thought it would be difficult to find MHC providers that look like me or have my background (e.g. cultural, racial, ethnic) (17)
- ○ I preferred to seek help from a faith-based source (pastor, church, faith-based leader or support group) (26)
- ○ I preferred to seek help from a culture-focused source (cultural organization, entity or group) (27)
- ○ I believed that the cause of my problems is not actually “mental health” or illness—e.g. problem is some other stressor in my life that needs to be dealt with and MHC providers would not be able to address (28)
- ○ Other (please specify below) (14)
- ○ Prefer not to respond (15)

Q135 Please describe the secondary reason you did not seek treatment at that time.

If you prefer not to respond, please type "prefer not to respond."

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mh_prev Before you reached out to mental health care services (MHC) for help for the first time, what prevented you from reaching out the first time? Select all that apply.

- [ ] I believed I could handle the problem by myself (1)
- [ ] I did not believe I had a problem (25)
- [ ] I didn’t have time (2)
- [ ] I didn't believe medication would help based on past experiences with providers (3)
- [ ] I didn’t believe therapy would help based on past experiences with providers (26)
- [ ] I didn’t believe medication would help based on what I’ve heard from others (27)
- [ ] I didn’t believe therapy would help based on what I’ve heard from others (28)
- [ ] I didn’t believe that medication would help me specifically (29)
- [ ] I didn’t believe therapy would help me specifically (18)
- [ ] I didn’t understand the insurance options or how much MHC services would cost (6)
- [ ] I had insurance but MHC still costs too much (5)
- [ ] I didn’t have adequate insurance (4)
- [ ] I didn’t know how to find MHC services/ I didn't know what kind of services to look for (7)
- [ ] I didn't believe in psychiatry/MHC services (19)
- [ ] I was afraid of being hospitalized (20)

- [ ] I was afraid of taking psychiatric medications (21)
- [ ] Other (please specify below) (30)
- [ ] Prefer not to respond (16)

Q130 What prevented you from reaching out for help?

If you prefer not to respond, please type "prefer not to respond."

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_____

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_____

mh_prev2 What else prevented you from reaching out for help sooner?

Please select all that apply.

- [ ] I'm afraid of the stigma (I'm afraid of being judged or that people will think I'm crazy (1)
- [ ] I'm afraid it would mean I'm crazy (4)
- [ ] I'm afraid it would mean I'm weak or inadequate (5)
- [ ] My family wouldn't approve/not part of my family's culture (6)
- [ ] I didn't think I can trust MHC providers (7)
- [ ] I didn't believe there are MHC providers that would understand me (8)
- [ ] I think it would be difficult to find MHC providers that look like me or have my background (e.g. cultural, racial, ethnic) (9)
- [ ] I preferred to seek help from a faith-based source (pastor, church, faith-based leader or support group) (10)
- [ ] I preferred to seek help from a culture-focused source (cultural organization, entity or group) (11)
- [ ] I believed that the cause of my problems is not actually "mental health" or illness—e.g. problem is some other stressor in my life that needs to be dealt with and MH providers would not be able to address (12)
- [ ] Other (please specify below) (13)
- [ ] Prefer not to respond (14)

mh_prev3 What else prevented you from reaching out for help?

If you prefer not to respond, please type "prefer not to respond."

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Q136 What was the primary reason that prevented you from reaching out for help?

- ○ I believed I could handle the problem by myself (1)
- ○ I did not believe I had a problem (19)
- ○ I didn't have time (2)
- ○ I didn't believe medication would help based on past experiences with providers (20)
- ○ I didn't believe therapy would help based on past experiences with providers (29)
- ○ I didn't believe medication would help based on what I've heard from others (30)
- ○ I didn't believe therapy would help based on what I've heard from others (31)
- ○ I didn't believe that medication would help me specifically (32)
- ○ I didn't believe therapy would help me specifically (21)
- ○ I didn't understand the insurance options or how much MHC services would cost (6)
- ○ I had insurance but MHC still costs too much (5)
- ○ I didn't have adequate insurance (4)
- ○ I didn't know how to find MHC services/ I don't know what kind of services to look for (7)
- ○ I didn't believe in psychiatry/MHC services (23)
- ○ I'm afraid of being hospitalized (24)
- ○ I'm afraid of taking psychiatric medications (25)
- ○ I was afraid of the stigma (I'm afraid of being judged or that people will think I'm crazy) (8)
- ○ I was afraid it meant I'm crazy (9)
- ○ I was afraid it would mean I'm weak or inadequate (10)
- ○ My family wouldn't approve/not part of my family's culture (11)

- ○ I didn’t think I can trust MHC providers (12)
- ○ I didn’t believe there are MHC providers that would understand me (16)
- ○ I thought it would be difficult to find MHC providers that look like me or have my background (e.g. cultural, racial, ethnic) (17)
- ○ I preferred to seek help from a faith-based source (pastor, church, faith-based leader or support group) (26)
- ○ I preferred to seek help from a culture-focused source (cultural organization, entity or group) (27)
- ○ I believed that the cause of my problems is not actually “mental health” or illness—e.g. problem is some other stressor in my life that needs to be dealt with and MHC providers would not be able to address (28)
- ○ Other (please specify below) (14)
- ○ Prefer not to respond (15)

Q137 Please describe the primary reason that prevented you from reaching out for help.

If you prefer not to respond, please type "prefer not to respond."

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Q138 What was the secondary reason that prevented you from reaching out for help?

- ○ I believed I could handle the problem by myself (1)
- ○ I did not believe I had a problem (19)
- ○ I didn't have time (2)
- ○ I didn't believe medication would help based on past experiences with providers (20)
- ○ I didn't believe therapy would help based on past experiences with providers (29)
- ○ I didn't believe medication would help based on what I've heard from others (30)
- ○ I didn't believe therapy would help based on what I've heard from others (31)
- ○ I didn't believe that medication would help me specifically (32)
- ○ I didn't believe therapy would help me specifically (21)
- ○ I didn't understand the insurance options or how much MHC services would cost (6)
- ○ I had insurance but MHC still costs too much (5)
- ○ I didn't have adequate insurance (4)
- ○ I didn't know how to find MHC services/ I don't know what kind of services to look for (7)
- ○ I didn't believe in psychiatry/MHC services (23)
- ○ I'm afraid of being hospitalized (24)
- ○ I'm afraid of taking psychiatric medications (25)
- ○ I was afraid of the stigma (I'm afraid of being judged or that people will think I'm crazy) (8)
- ○ I was afraid it meant I'm crazy (9)
- ○ I was afraid it would mean I'm weak or inadequate (10)
- ○ My family wouldn't approve/not part of my family's culture (11)

- ○ I didn’t think I can trust MHC providers (12)
- ○ I didn’t believe there are MHC providers that would understand me (16)
- ○ I thought it would be difficult to find MHC providers that look like me or have my background (e.g. cultural, racial, ethnic) (17)
- ○ I preferred to seek help from a faith-based source (pastor, church, faith-based leader or support group) (26)
- ○ I preferred to seek help from a culture-focused source (cultural organization, entity or group) (27)
- ○ I believed that the cause of my problems is not actually “mental health” or illness—e.g. problem is some other stressor in my life that needs to be dealt with and MHC providers would not be able to address (28)
- ○ Other (please specify below) (14)
- ○ Prefer not to respond (15)

Q139 Please describe the secondary reason that prevented you from reaching out for help.

If you prefer not to respond, please type "prefer not to respond."

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mh_prev4 In your own words, what prevented you from reaching out to mental health care services sooner?

_____

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_____

mh_concerns For what concerns have you ever sought treatment? Select all that apply.

- ☐ Anxiety or Phobia (2)
- ☐ Attachment problems (3)
- ☐ Attention-related (ADHD) (4)
- ☐ Autism spectrum related (5)
- ☐ Behavior problems/aggression (6)
- ☐ Bipolar I Disorder (7)
- ☐ Bipolar II Disorder (17)
- ☐ Bipolar disorder with psychotic features (18)
- ☐ Depression (22)
- ☐ Drug or alcohol problem (8)
- ☐ Eating disorder (9)
- ☐ Learning disorder (10)
- ☐ OCD (11)
- ☐ Personality disorder (24)
- ☐ Psychosis (12)
- ☐ Psychosis risk (19)

- [ ] Self-harm (20)
- [ ] Sexual concerns (13)
- [ ] Stressful life events (1)
- [ ] Suicidality (23)
- [ ] Trauma or PTSD (14)
- [ ] Other (please describe below) (15)
- [ ] I don't know (21)
- [ ] Prefer not to respond (16)

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mh_stress2 For what stressful life events did you seek mental health care services?

Select all that apply.

- [ ] Academic problems (1)
- [ ] Bullying (2)
- [ ] Conflict with family (3)
- [ ] Conflict with roommates/housemates (4)
- [ ] Death of a loved one/someone you were close to (5)
- [ ] Financial problems (6)
- [ ] Health problems (7)
- [ ] Life transitions (e.g. moving, starting school, getting married, having a child, etc.) (8)
- [ ] Problems with romantic partner (9)
- [ ] Other (please describe below) (10)
- [ ] Prefer not to respond (11)

mh_concerns2 For what personality disorders have you sought mental health treatment?

- [ ] Avoidant Personality Disorder (1)
- [ ] Antisocial Personality Disorder (2)
- [ ] Borderline Personality Disorder (3)
- [ ] Dependent Personality Disorder (4)
- [ ] Histrionic Personality Disorder (5)
- [ ] Narcissistic Personality Disorder (6)
- [ ] Obsessive Compulsive Personality Disorder (7)
- [ ] Paranoid Personality Disorder (8)
- [ ] Schizoid Personality Disorder (9)
- [ ] Schizotypal Personality Disorder (10)
- [ ] Other personality disorder (11)

mh_stress3 What other stressful life events led you to seek mental health care services?

If you prefer not to respond, type "prefer not to respond."

_____

_____

_____

_____

_____

mh_other Please describe any other concerns for which you sought mental health treatment.

If you prefer not to respond, please type "prefer not to respond."

_____

_____

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mh_att How have your attitudes towards therapy changed, if at all, after utilizing mental health services?

If you prefer not to respond, please type "prefer not to respond."

_____

_____

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mh_att2 How have your attitudes towards psychiatric medication changed, if at all, after utilizing mental health services?

If you prefer not to respond, please type "prefer not to respond."

_____

_____

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mh_att3 How have your attitudes towards inpatient and/or emergency/crisis care changed, if at all, after utilizing mental health services?

If you prefer not to respond, please type "prefer not to respond."

_____

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ther_l

	Unlikely (1)	Slightly Unlikely (2)	Neutral (3)	Slightly Likely (4)	Likely (5)	Prefer not to respond (6)
How likely are you to utilize therapy in the future? (1)	○	○	○	○	○	○

meds_l

	Unlikely (1)	Slightly Unlikely (2)	Neutral (3)	Slightly Likely (4)	Likely (5)	Prefer not to respond (6)
How likely are you to utilize psychiatric medications in the future? (1)	○	○	○	○	○	○

inp_l

	Unlikely (1)	Slightly Unlikely (2)	Neutral (3)	Slightly Likely (4)	Likely (5)	Prefer not to respond (6)
How likely are you to utilize inpatient and/or emergency care in the future? (1)	○	○	○	○	○	○

mh_conc In general, if you had a mental health concern (feeling down/depressed, etc.), who would you go to?

Select all that apply.

- [ ] Mental health care provider (1)
- [ ] Crisis hotline (12)
- [ ] 911 or emergency services (13)
- [ ] Friend - in person (2)
- [ ] Friend - online (3)
- [ ] Parent (4)
- [ ] Teacher/professor/teaching assistant (5)
- [ ] Other family member (6)
- [ ] Residence hall staff (Resident Assistant) (11)
- [ ] Romantic partner (7)
- [ ] Other (please specify below) (8)
- [ ] I would not go to anyone (10)
- [ ] Prefer not to respond (9)

mh_conc2 Please specify who else you would go to if you had a mental health concern.

If you prefer not to respond, please type "prefer not to respond."

_____

_____

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mh_si If you felt like you wanted to hurt yourself or kill yourself, who would you go to?

Select all that apply.

- [ ] Mental health care provider (1)
- [ ] Crisis hotline (14)
- [ ] 911 or emergency services (15)
- [ ] Friend - in person (4)
- [ ] Friend - online (5)
- [ ] Parent (6)
- [ ] Teacher/professor/teaching assistant (7)
- [ ] Other family member (8)
- [ ] Residence hall staff (Resident Assistant) (13)
- [ ] Romantic partner (9)
- [ ] Other (please describe) (10)
- [ ] I would not go to anyone (11)
- [ ] Prefer not to respond (12)

mh_si2 Who else would you go to if you felt like you wanted to hurt or kill yourself?

If you prefer not to respond, please type "prefer not to respond."

_____

_____

_____

_____

_____

mh_dx Have you ever been diagnosed with a mental health issue?

- ○ Yes (1)
- ○ No (2)
- ○ Not sure (4)
- ○ Prefer not to respond (3)

mh_dx2 Please select all diagnoses that apply from this list:

- [ ] Anxiety or Phobia (2)
- [ ] Attachment problems (3)
- [ ] Attention-related (ADHD) (4)
- [ ] Autism spectrum related (5)
- [ ] Behavior problems/aggression (6)
- [ ] Bipolar I disorder (7)
- [ ] Bipolar II disorder (19)
- [ ] Bipolar disorder with psychotic features (20)
- [ ] Depression (8)
- [ ] Drug or alcohol problem (9)
- [ ] Eating disorder (10)
- [ ] Learning disorder (11)
- [ ] OCD (12)
- [ ] Personality disorder (24)
- [ ] Psychosis (13)
- [ ] Psychosis risk (21)

- [ ] Self-harm (22)
- [ ] Sexual concerns (14)
- [ ] Stressful life events (1)
- [ ] Suicidality (15)
- [ ] Trauma or PTSD (16)
- [ ] Other (please specify below) (17)
- [ ] I don't know (23)
- [ ] Prefer not to respond (18)

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mh_stress4 For what stressful life events did you seek mental health care services?

Select all that apply.

- [ ] Academic problems (1)
- [ ] Bullying (2)
- [ ] Conflict with family (3)
- [ ] Conflict with roommates/housemates (4)
- [ ] Death of a loved one/someone you were close to (5)
- [ ] Financial problems (6)
- [ ] Health problems (7)
- [ ] Life transitions (e.g. moving, starting school, getting married, having a child, etc.) (8)
- [ ] Problems with romantic partner (9)
- [ ] Other (please describe below) (10)
- [ ] Prefer not to respond (11)

mh_stress5 What other stressful life events led you to seek mental health care services?

If you prefer not to respond, type "prefer not to respond."

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mh_dx4 For what personality disorders have you sought mental health treatment?

- ☐ Avoidant Personality Disorder (1)
- ☐ Antisocial Personality Disorder (2)
- ☐ Borderline Personality Disorder (3)
- ☐ Dependent Personality Disorder (4)
- ☐ Histrionic Personality Disorder (5)
- ☐ Narcissistic Personality Disorder (6)
- ☐ Obsessive Compulsive Personality Disorder (7)
- ☐ Paranoid Personality Disorder (8)
- ☐ Schizoid Personality Disorder (9)
- ☐ Schizotypal Personality Disorder (10)
- ☐ Other personality disorder (11)

mh_dx3 Please describe what other mental health issue(s) you've been diagnosed with.

If you prefer not to respond, please type "prefer not to respond."

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mh_curr Are you currently receiving mental health care or have you received mental health care in the past two months?

- ○ Yes (1)
- ○ No (2)
- ○ Prefer not to respond (3)

mh_curr2 For what concerns are you currently seeking treatment? Select all that apply

- ☐ Anxiety or Phobia (2)
- ☐ Attachment problems (3)
- ☐ Attention-related (ADHD) (4)
- ☐ Autism spectrum related (5)
- ☐ Behavior problems/aggression (6)
- ☐ Bipolar I disorder (7)
- ☐ Bipolar II disorder (19)
- ☐ Bipolar disorder with psychotic features (20)
- ☐ Depression (8)
- ☐ Drug or alcohol problem (9)
- ☐ Eating disorder (10)
- ☐ Learning disorder (11)
- ☐ OCD (12)
- ☐ Personality disorder (25)
- ☐ Psychosis (13)
- ☐ Psychosis risk (21)

- [ ] Self-harm (22)
- [ ] Sexual concerns (14)
- [ ] Stressful life events (1)
- [ ] Suicidality (15)
- [ ] Trauma or PTSD (16)
- [ ] Other (please specify below) (17)
- [ ] I don't know (23)
- [ ] Prefer not to respond (18)

mh_stress6 For what stressful life events did you seek mental health care services?

Select all that apply.

- ☐ Academic problems (1)
- ☐ Bullying (2)
- ☐ Conflict with family (3)
- ☐ Conflict with roommates/housemates (4)
- ☐ Death of a loved one/someone you were close to (5)
- ☐ Financial problems (6)
- ☐ Health problems (7)
- ☐ Life transitions (e.g. moving, starting school, getting married, having a child, etc.) (8)
- ☐ Problems with romantic partner (9)
- ☐ Other (please describe below) (10)
- ☐ Prefer not to respond (11)

Q154 What other stressful life events led you to seek mental health care services?

If you prefer not to respond, type "prefer not to respond."

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mh_curr4 For what personality disorders have you sought mental health treatment?

- [ ] Avoidant Personality Disorder (1)
- [ ] Antisocial Personality Disorder (2)
- [ ] Borderline Personality Disorder (3)
- [ ] Dependent Personality Disorder (4)
- [ ] Histrionic Personality Disorder (5)
- [ ] Narcissistic Personality Disorder (6)
- [ ] Obsessive Compulsive Personality Disorder (7)
- [ ] Paranoid Personality Disorder (8)
- [ ] Schizoid Personality Disorder (9)
- [ ] Schizotypal Personality Disorder (10)
- [ ] Other personality disorder (11)

mh_curr3 Please specify for what other mental health concern(s) you are currently seeking treatment:

If you prefer not to respond, please type "prefer not to respond."

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mh_int Please choose how strongly you agree or disagree with the following statement:

	Disagree (1)	Slightly Disagree (2)	Neutral (3)	Slightly Agree (4)	Agree (5)	Prefer not to respond (6)
I am interested in receiving mental health care services. (1)	○	○	○	○	○	○

mh_not_int Why are you not interested in mental health care services?

- ○ I have some mental health concerns, but... (please specify below) (1)
- ○ I don't have any significant mental health concerns (2)
- ○ Prefer not to respond (3)

mh_not_int2 I have mental health concerns, but... (select all that apply)

- [ ] I can handle this problem by myself (1)
- [ ] I do not believe I have a problem (18)
- [ ] I don't have time (2)
- [ ] I don't believe medication would help based on past experiences with providers (19)
- [ ] I don't believe therapy would help based on past experiences with providers (27)
- [ ] I don't believe medication would help based on what I've heard from others (28)
- [ ] I don't believe therapy would help based on what I've heard from others (29)
- [ ] I don't believe that medication would help me specifically (20)
- [ ] I don't believe therapy would help me specifically (21)
- [ ] I don't understand the insurance options or how much MHC services would cost (6)
- [ ] I have insurance, but MHC services still costs too much (5)
- [ ] I don't have adequate insurance (4)
- [ ] I don't know how to find MHC services/ I don't know what kind of services to look for (7)
- [ ] I don't believe in psychiatry/MHC services (22)
- [ ] I'm afraid of being hospitalized (23)

☐ I'm afraid of taking psychiatric medications (24)

☐ I'm afraid of the stigma (I'm afraid of being judged or that people will think I'm crazy) (8)

☐ I'm afraid it would mean I'm crazy (9)

☐ I'm afraid it would mean I'm weak or inadequate (10)

☐ My family wouldn't approve/not part of my family's culture (11)

☐ I don't think I can trust MHC providers (12)

☐ I don't believe there are MHC providers that would understand me (13)

☐ I think it would be difficult to find MHC providers that look like me or have my background (e.g. cultural, racial, ethnic) (14)

☐ I prefer to seek help from a faith-based source (pastor, church, faith-based leader or support group) (25)

☐ I prefer to seek help from a culture-focused source (cultural organization, entity or group) (16)

☐ I believed that the cause of my problems was not actually "mental health" or illness - for example, the problem was some other stressor in my life that needed to be dealt with and MHC providers would not be able to address (26)

☐ Other (please specify below) (17)

☐ Prefer not to respond (15)

mh_not_int3 Please specify why else you are not interested in mental health services:

If you prefer not to respond, please type "prefer not to respond."

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Q141 What is the primary reason you are not interested in mental health services ?

- I believe I can handle the problem by myself (1)
- I do not believe I have a problem (19)
- I don't have time (2)
- I don't believe medication will help based on past experiences with providers (20)
- I don't believe therapy will help based on past experiences with providers (29)
- I don't believe medication will help based on what I've heard from others (30)
- I don't believe therapy will help based on what I've heard from others (31)
- I don't believe that medication will help me specifically (32)
- I don't believe therapy will help me specifically (21)
- I don't understand the insurance options or how much MHC services will cost (6)
- I have insurance but MHC still costs too much (5)
- I don't have adequate insurance (4)
- I don't know how to find MHC services/ I don't know what kind of services to look for (7)
- I don't believe in psychiatry/MHC services (23)
- I'm afraid of being hospitalized (24)
- I'm afraid of taking psychiatric medications (25)
- I'm afraid of the stigma (I'm afraid of being judged or that people will think I'm crazy) (8)
- I'm afraid it means I'm crazy (9)
- I'm afraid it means I'm weak or inadequate (10)
- My family doesn't approve/not part of my family's culture (11)

- ○ I don't think I can trust MHC providers (12)
- ○ I don't believe there are MHC providers that will understand me (16)
- ○ I think it will be difficult to find MHC providers that look like me or have my background (e.g. cultural, racial, ethnic) (17)
- ○ I prefer to seek help from a faith-based source (pastor, church, faith-based leader or support group) (26)
- ○ I prefer to seek help from a culture-focused source (cultural organization, entity or group) (27)
- ○ I believe that the cause of my problems is not actually “mental health” or illness—e.g. problem is some other stressor in my life that needs to be dealt with and MHC providers would not be able to address (28)
- ○ Other (please specify below) (14)
- ○ Prefer not to respond (15)

Q142 Please describe the primary reason you are not interested in mental health services.

If you prefer not to respond, please type "prefer not to respond."

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Q143 What is the secondary reason you are not interested in mental health services ?

- I believe I can handle the problem by myself (1)
- I do not believe I have a problem (19)
- I don't have time (2)
- I don't believe medication will help based on past experiences with providers (20)
- I don't believe therapy will help based on past experiences with providers (29)
- I don't believe medication will help based on what I've heard from others (30)
- I don't believe therapy will help based on what I've heard from others (31)
- I don't believe that medication will help me specifically (32)
- I don't believe therapy will help me specifically (21)
- I don't understand the insurance options or how much MHC services will cost (6)
- I have insurance but MHC still costs too much (5)
- I don't have adequate insurance (4)
- I don't know how to find MHC services/ I don't know what kind of services to look for (7)
- I don't believe in psychiatry/MHC services (23)
- I'm afraid of being hospitalized (24)
- I'm afraid of taking psychiatric medications (25)
- I'm afraid of the stigma (I'm afraid of being judged or that people will think I'm crazy) (8)
- I'm afraid it means I'm crazy (9)
- I'm afraid it means I'm weak or inadequate (10)
- My family doesn't approve/not part of my family's culture (11)

- ○ I don't think I can trust MHC providers (12)
- ○ I don't believe there are MHC providers that will understand me (16)
- ○ I think it will be difficult to find MHC providers that look like me or have my background (e.g. cultural, racial, ethnic) (17)
- ○ I prefer to seek help from a faith-based source (pastor, church, faith-based leader or support group) (26)
- ○ I prefer to seek help from a culture-focused source (cultural organization, entity or group) (27)
- ○ I believe that the cause of my problems is not actually “mental health” or illness—e.g. problem is some other stressor in my life that needs to be dealt with and MHC providers would not be able to address (28)
- ○ Other (please specify below) (14)
- ○ Prefer not to respond (15)

Q144 Please describe the secondary reason you are not interested in mental health services.

If you prefer not to respond, please type "prefer not to respond."

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mh_sugg Has anyone in your life suggested that you seek mental health treatment?

- ○ Yes (1)
- ○ No (2)
- ○ Prefer not to respond (3)

mh_sugg2 Who has suggested that you seek mental health treatment? Please select all that apply from the list below:

- ☐ Friend - in person (1)
- ☐ Friend - online (2)
- ☐ Parent (3)
- ☐ Teacher/professor/teaching assistant (4)
- ☐ Other family member (5)
- ☐ Romantic partner (6)
- ☐ Other (please specify below) (7)
- ☐ Prefer not to respond (8)

mh_sugg3 Who else in your life has suggested that you seek mental health treatment?

If you prefer not to respond, please type "prefer not to respond."

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mh_sugg4 Did you ever seek mental health care after someone suggested that you should?

- ○ Yes (1)
- ○ No (2)
- ○ Prefer not to respond (3)

mh_sugg5 Why did you not seek treatment after their suggestion? Select all that apply

- [ ] I believed I could handle the problem by myself (1)
- [ ] I did not believe I had a problem (19)
- [ ] I didn't have time (2)
- [ ] I didn't believe medication would help based on past experiences with providers (20)
- [ ] I didn't believe therapy would help based on past experiences with providers (29)
- [ ] I didn't believe medication would help based on what I've heard from others (30)
- [ ] I didn't believe therapy would help based on what I've heard from others (31)
- [ ] I didn't believe that medication would help me specifically (32)
- [ ] I didn't believe therapy would help me specifically (21)
- [ ] I didn't understand the insurance options or how much MHC services would cost (6)
- [ ] I had insurance but MHC still costs too much (5)
- [ ] I didn't have adequate insurance (4)
- [ ] I didn't know how to find MHC services/ I don't know what kind of services to look for (7)
- [ ] I didn't believe in psychiatry/MHC services (23)
- [ ] I'm afraid of being hospitalized (24)

☐ I'm afraid of taking psychiatric medications (25)

☐ I was afraid of the stigma (I'm afraid of being judged or that people will think I'm crazy) (8)

☐ I was afraid it meant I'm crazy (9)

☐ I was afraid it would mean I'm weak or inadequate (10)

☐ My family wouldn't approve/not part of my family's culture (11)

☐ I didn't think I can trust MHC providers (12)

☐ I didn't believe there are MHC providers that would understand me (16)

☐ I thought it would be difficult to find MHC providers that look like me or have my background (e.g. cultural, racial, ethnic) (17)

☐ I preferred to seek help from a faith-based source (pastor, church, faith-based leader or support group) (26)

☐ I preferred to seek help from a culture-focused source (cultural organization, entity or group) (27)

☐ I believed that the cause of my problems is not actually "mental health" or illness—e.g. problem is some other stressor in my life that needs to be dealt with and MHC providers would not be able to address (28)

☐ Other (please specify below) (14)

☐ Prefer not to respond (15)

mh_sugg6 Why else did you not seek mental health treatment after their suggestion?

If you prefer not to respond, please type "prefer not to respond."

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Q132 What was the primary reason you did not seek treatment after their suggestion?

- ○ I believed I could handle the problem by myself (1)
- ○ I did not believe I had a problem (19)
- ○ I didn't have time (2)
- ○ I didn't believe medication would help based on past experiences with providers (20)
- ○ I didn't believe therapy would help based on past experiences with providers (29)
- ○ I didn't believe medication would help based on what I've heard from others (30)
- ○ I didn't believe therapy would help based on what I've heard from others (31)
- ○ I didn't believe that medication would help me specifically (32)
- ○ I didn't believe therapy would help me specifically (21)
- ○ I didn't understand the insurance options or how much MHC services would cost (6)
- ○ I had insurance but MHC still costs too much (5)
- ○ I didn't have adequate insurance (4)
- ○ I didn't know how to find MHC services/ I don't know what kind of services to look for (7)
- ○ I didn't believe in psychiatry/MHC services (23)
- ○ I'm afraid of being hospitalized (24)
- ○ I'm afraid of taking psychiatric medications (25)
- ○ I was afraid of the stigma (I'm afraid of being judged or that people will think I'm crazy) (8)
- ○ I was afraid it meant I'm crazy (9)
- ○ I was afraid it would mean I'm weak or inadequate (10)
- ○ My family wouldn't approve/not part of my family's culture (11)

- ○ I didn’t think I can trust MHC providers (12)
- ○ I didn’t believe there are MHC providers that would understand me (16)
- ○ I thought it would be difficult to find MHC providers that look like me or have my background (e.g. cultural, racial, ethnic) (17)
- ○ I preferred to seek help from a faith-based source (pastor, church, faith-based leader or support group) (26)
- ○ I preferred to seek help from a culture-focused source (cultural organization, entity or group) (27)
- ○ I believed that the cause of my problems is not actually “mental health” or illness—e.g. problem is some other stressor in my life that needs to be dealt with and MHC providers would not be able to address (28)
- ○ Other (please specify below) (14)
- ○ Prefer not to respond (15)

Q145 Please describe the primary reason you did not seek treatment after their suggestion.

If you prefer not to respond, please type "prefer not to respond."

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Q146 What was the secondary reason you did not seek treatment after their suggestion?

- I believed I could handle the problem by myself (1)
- I did not believe I had a problem (19)
- I didn't have time (2)
- I didn't believe medication would help based on past experiences with providers (20)
- I didn't believe therapy would help based on past experiences with providers (29)
- I didn't believe medication would help based on what I've heard from others (30)
- I didn't believe therapy would help based on what I've heard from others (31)
- I didn't believe that medication would help me specifically (32)
- I didn't believe therapy would help me specifically (21)
- I didn't understand the insurance options or how much MHC services would cost (6)
- I had insurance but MHC still costs too much (5)
- I didn't have adequate insurance (4)
- I didn't know how to find MHC services/ I don't know what kind of services to look for (7)
- I didn't believe in psychiatry/MHC services (23)
- I'm afraid of being hospitalized (24)
- I'm afraid of taking psychiatric medications (25)
- I was afraid of the stigma (I'm afraid of being judged or that people will think I'm crazy) (8)
- I was afraid it meant I'm crazy (9)
- I was afraid it would mean I'm weak or inadequate (10)
- My family wouldn't approve/not part of my family's culture (11)

- ○ I didn’t think I can trust MHC providers (12)
- ○ I didn’t believe there are MHC providers that would understand me (16)
- ○ I thought it would be difficult to find MHC providers that look like me or have my background (e.g. cultural, racial, ethnic) (17)
- ○ I preferred to seek help from a faith-based source (pastor, church, faith-based leader or support group) (26)
- ○ I preferred to seek help from a culture-focused source (cultural organization, entity or group) (27)
- ○ I believed that the cause of my problems is not actually “mental health” or illness—e.g. problem is some other stressor in my life that needs to be dealt with and MHC providers would not be able to address (28)
- ○ Other (please specify below) (14)
- ○ Prefer not to respond (15)

Q147 Please describe the secondary reason you did not seek treatment after their suggestion.

If you prefer not to respond, please type "prefer not to respond."

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Page Break

End of Block: MHCU

Start of Block: Feedback

Feedback Thank you for completing the survey!

Please provide any feedback you might have for this survey. Did you experience any technological challenges? Were any of the questions confusing? Were there any aspects of mental health care utilization that we did not ask about?

This question is optional and we thank you for any feedback that you are willing to provide.

_____

End of Block: Feedback

Start of Block: Finish

Finish Thank you for completing the survey! If you have any questions or concerns, please contact us at mbridgwa@uci.edu

You should receive 1 SONA credit within 48 hours. If you have not received credit within 48 hours of completing the survey, please feel free to reach out to the email above. (Sometimes there is an "error" message when redirected back to SONA; if this happens, you should still receive credit within 48 hours.)

CLICK THE ANSWER BELOW TO BE REDIRECTED TO SONA IN ORDER TO BE ASSIGNED CREDIT BY THE RESEARCHER.

○ SELECT THIS ANSWER SO WE CAN ASSIGN YOU SONA CREDIT (1)

End of Block: Finish