

Decoding Factors Influencing Mental Health Help-Seeking in Asian International Students: A Correlational Survey Study

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This study investigates the effects of gender, age, perceived socioeconomic status, and attitudes toward mental health treatment, alongside the awareness and accessibility of mental health services, on the propensity of Asian international undergraduate and graduate students in U.S. colleges to seek mental health support. Utilizing an online survey, responses from a diverse group of 116 participants, aged 18 and above, from universities across the nation were examined through correlation analysis. Findings indicated no significant gender differences in attitudes toward mental health treatment. However, factors such as higher educational level, superior socioeconomic background, longer U.S. residency, and increased awareness and accessibility of mental health services positively influenced attitudes. This quantitative study extends previous qualitative research addressing similar questions, filling a gap by offering broader empirical insights into this population's mental health service utilization. The outcome underscores the need for university counseling centers to develop targeted interventions that acknowledge the needs of Asian international students. Future research should explore the longitudinal impacts of these factors on mental health help-seeking behaviors to inform ongoing service improvement.

Keywords: mental health treatment, attitudes toward mental health, Asian international students, awareness and accessibility, socioeconomic influences

Mental disorders have a significant impact on a substantial portion of the global population. Warren (2023) noted that approximately 50 million individuals in the U.S. are affected by a diagnosable mental disorder. In March 2022, the World Health Organization reported a 25% increase in anxiety and depression diagnoses worldwide, alongside an increased risk of suicidal ideation (Kola, 2022). Notably, college students represent a demographic with a higher incidence of mental health issues. A comprehensive study by Auerbach et al. (2018) revealed that out of 13,984 American college students surveyed, 35% tested positive for at least one of six mental health disorders. The study further indicated a prevalence rate of 31.4% for mental health disorders within the past year and a lifetime prevalence of 35.3% (Auerbach et al., 2018). More recent data underscores this concern. The American College Health Association's (ACHA) 2022 National College Health Assessment, which surveyed over 54,000 undergraduate students, found that approximately 77% were experiencing moderate to serious psychological distress.

While the mental health of college students is a broad concern, international students represent a particularly vulnerable group. Shadowen (2019) discovered that international students often report high levels of depression and anxiety. In his study of 490 individuals, 45.3% met the criteria for clinically significant depression on the Center for Epidemiologic Studies Depression Scale (CES-D), and 24.7%

showed moderate to severe anxiety symptoms as per the Beck Anxiety Inventory (BAI). Further emphasizing this issue, Jamshaid (2023) conducted a longitudinal study revealing that international students experienced increased levels of depression and anxiety during and following the COVID-19 pandemic.

Despite the high prevalence of mental disorders, the rate at which individuals seek treatment remains concerningly low. Khoury and Ammar (2014) found that only 23% of individuals with mental illnesses in the United States sought treatment. Data from the National Health Interview Survey (NHIS) in 2019 indicated that just 19.2% of adults aged 18 and over had received any mental health treatment in the previous 12 months, a figure that increased slightly to 21.6% by 2021 (Terlizzi, 2022). Although Warren (2023) reported a rise in treatment prevalence to 45% in 2023, the situation appears different within the college student population. According to the American College Health Association-National College Health Assessment (ACHA-NCHA), only 24% of students diagnosed with depression sought treatment, and this percentage was even lower among international students. Mesidor (2014) found that a mere 17.7% of international students ($n=34$) with mental health concerns intended to seek help. Further, a study by Zhou et al. (2021) highlighted a significant disparity in service utilization between international and domestic students ($n=96,567$), with respective rates

of 32.0% and 49.8%. This low prevalence of treatment-seeking behavior in both the broader college population and particularly among international students remains a major concern for many universities.

Given the gap between the need for mental health services and the actual rates at which individuals, especially international students, seek out these services, one cannot help but wonder what specific challenges are faced by this population that further complicate this scenario. Are cultural perceptions, stigma, or perhaps the lack of culturally sensitive resources exacerbating their reluctance to seek help? Imagine the internal struggle of a student, thousands of miles away from home, facing not only the usual stresses of academic life but also navigating a foreign mental health system that feels alien to them. As we delve into the specific mental health issues faced by this group, we must consider these unique barriers, and explore how universities can bridge the gap between the need for and utilization of mental health services among international students.

The Mental Health Landscape of International Students

Many existing studies have identified international students as particularly vulnerable to mental health challenges, arising from a combination of factors including academic pressures, language barriers, cultural adjustment, financial stress, and a reluctance to seek help (Dombou et al., 2023; Friday, 2018; Jiang et al., 2020; Mohammadifrouzeh et al., 2023). These students face not only intense academic competition but also overwhelming stress and anxiety (Asif et al., 2020). Furthermore, adapting to new food, climate, and societal systems can significantly exacerbate these stressors, potentially leading to conditions such as depression (Cianconi et al., 2020). Prieto-Welch (2016) encapsulates this by noting that “international students face unique pressures and struggles which may interact with and amplify the expected stressors,” leading to grave outcomes such as academic difficulties, addiction, suicidal ideation, and broader health concerns.

Among these myriad challenges, language barriers emerge as a particularly pivotal issue, exacerbating feelings of isolation and communication difficulties (Smith & Khawaja, 2011; Wilczewski & Alon, 2023). This sense of isolation extends beyond social aspects, potentially impairing international students’ academic performance as they may struggle to comprehend lectures, participate in discussions, or seek assistance

from peers and instructors. Smith and Khawaja (2011) underscore how these language barriers intensify the stress associated with adjusting to a new academic environment. However, the journey of adaptation for international students does not end with overcoming language obstacles. The impact of cultural adjustment on the mental health of international students is also significant (Razgulin et al., 2023). Mori (2000) posits that adapting to an unfamiliar cultural environment is a multifaceted and challenging process, often resulting in “culture shock.” This can manifest as anxiety, confusion, and depression, as students attempt to reconcile their cultural norms with those of the host country. International students commonly experience homesickness, and longing for family, friends, and familiar environments (Mekonen & Adarkwah, 2023; Sawir et al., 2008). This sense of loss can amplify feelings of loneliness and alienation, further exacerbating mental health concerns.

Beyond cultural and social challenges, financial pressures constitute another critical factor impacting the mental health of international students. They typically incur higher tuition fees and living expenses, along with limited work opportunities due to visa constraints (Lee & Rice, 2007; Olatunji et al., 2023). Such financial burdens can induce considerable stress and anxiety, as students grapple with fulfilling both their expenses and familial expectations. Compounding these issues is the stigma associated with mental health challenges and a lack of familiarity with the host country’s mental health services, which often leads to reluctance to seek help (Guo et al., 2019; Poyrazli & Lopez, 2007). Without timely and appropriate intervention, these compounded stresses can exacerbate existing mental health conditions, underscoring the urgent need for accessible and culturally sensitive support systems for international students.

The majority of international students are vulnerable to the repercussions previously mentioned, making these issues a primary concern for many higher educational institutions. Despite this, the inclination to seek professional mental health assistance remains notably low among international students, particularly those from Asian backgrounds. Nilsson et al. (2004) found a significantly lower prevalence of mental health treatment among international students at university counseling centers compared to their domestic U.S. counterparts. Wong et al. (2013) highlighted that,

due to acculturation challenges, Asian international students have the lowest rate of mental health treatment among all international student groups. Empirical research further reveals the susceptibility of Asian international students to mental health issues. Sun et al. (2020) reported that perceived discrimination and cultural adjustment difficulties significantly contribute to increased psychological distress in Chinese international students. Additionally, Yu et al. (2023) identified language barriers and social isolation as major stressors, often resulting in anxiety and depression. These findings gain added significance considering the large population of Asian international students at U.S. universities, underscoring the urgent need for targeted mental health support. Korhonen (2023) reported that the majority of international students in the U.S. are from China (289,526), India (268,923), and South Korea (43,847), making Asians the most populous regional group. As such, Korhonen (2023) underscored the critical need to understand and address the unique mental health challenges of this significant portion of the international student body.

Neglect of Mental Health Importance in Asian Cultures

Many Asian international students face significant mental health challenges upon their arrival in the United States for study, largely due to cultural perceptions of mental health in their home countries (Alegría, 2017). In these cultures, mental health issues are often overlooked, and seeking professional help is perceived as a weakness (Martinez, 2020). This cultural backdrop may lead to a lack of essential understanding among these students about mental health, available treatment options, and resources in their new environment, potentially discouraging them from seeking help or limiting their opportunities to gain mental health education (Jang, 2007).

The reluctance to address mental health concerns is deeply embedded in the traditional values and societal norms of many Asian cultures, where stoicism and self-reliance are highly valued (Chen & Jiang, 2022). Mental health issues are frequently viewed as personal failings rather than medical conditions that require attention, thus perpetuating stigma and discouragement from seeking help (Yin et al., 2020). This viewpoint is further supported by Zhang et al. (2019), who reported that in many Asian societies, mental health problems are often not recognized as

legitimate health issues. Instead, they are seen as a source of embarrassment or stigma. Yang et al. (2019) expand on this, noting that mental health issues are frequently interpreted as a disruption of social harmony or a sign of weakness. Moreover, studies by Martinez et al. (2020) reveal that in some Asian cultures, there is a strong emphasis on family reputation and honor, which often takes precedence over individual well-being. As a result, mental health concerns are often hidden to avoid bringing “shame” to the family.

In their qualitative study, Chen and Vivekananda (2021) found that this leads to a significant underreporting of mental health issues among Asian populations. In many Asian cultures, mental health issues are heavily stigmatized and often concealed due to societal perceptions that categorize them as personal failures, sources of shame, or burdens to the family (Misra et al., 2021). Societal pressures and gender expectations can exacerbate these concerns, making it particularly challenging for individuals to voice their struggles with mental health. For instance, societal norms often impose additional obstacles on women, as they are frequently expected to prioritize their family's and community's needs over their mental well-being (Kundadak et al., 2020).

The disparity in mental health awareness between Asian communities and Western societies, as noted by Tse and Haslam (2021), further complicates the situation. Many individuals from Asian backgrounds may not recognize symptoms of mental health disorders or know how to seek appropriate help. This lack of awareness, alongside a preference for traditional healing practices and community support over formal mental health care, can limit access to and utilization of necessary mental health services (Pham et al., 2021). While these traditional methods can be beneficial, they may not always be sufficient for treating complex mental health disorders. Yakunina and Weigold (2011) explored the interplay between cognitive variables and cultural factors influencing Asian international students' intentions to seek counseling. Their findings indicated that participants who endorsed more traditional Asian values reported less favorable attitudes toward counseling and lower intentions to seek help. This result highlights the significant impact of cultural values on mental health help-seeking behavior among Asian international students.

In summary, the neglect of mental health impor-

tance in Asian cultures is a complex issue, influenced by traditional values, societal norms, family dynamics, and a lack of mental health awareness. This further complicated as Asian international students navigate the acculturation process in their host countries, where the clash between these deeply ingrained cultural norms and the new societal context can create significant barriers to seeking mental health support.

Acculturation Issues Preventing Help-Seeking

Acculturation issues pose significant barriers for Asian international students seeking mental health support in the United States. Ma et al. (2020) identified that the adjustment to social and cultural norms of the host country often exacerbates existing mental health conditions and deters help-seeking due to fears of misunderstanding or judgment. This situation is compounded by cultural dissonance, where conflicts between students' native cultural beliefs and those of the host country led to increased stress and anxiety, a phenomenon Martinez-Taboada (2018) found to be prevalent among these students. The challenge of navigating between maintaining one's cultural identity and conforming to a new environment adds another layer of complexity to their experiences.

Furthermore, language barriers, as Lasauskiene and Bagdonaviciute (2023) point out, play a critical role in intensifying feelings of isolation and helplessness, particularly among students with limited English proficiency. This difficulty in communicating emotional and psychological needs effectively is a significant hurdle. Suh et al. (2023) add to this narrative by emphasizing the impact of perceived discrimination and stereotyping on these students' mental health. Such experiences can foster a sense of alienation and reluctance to seek help, for fear of further marginalization or stigmatization.

Navigating the U.S. mental health care system presents its own set of challenges, as highlighted by Clough et al. (2018). Asian international students may be unfamiliar with how mental health services operate in the U.S. and lack knowledge about available resources, significantly deterring help-seeking. Ra (2023) discussed the importance of social support networks in the acculturation process, noting that a lack of supportive relationships in the host country can lead to increased vulnerability and a decreased likelihood of seeking mental health services. The accumulation of these factors illustrates the complex interplay between

acculturation stress, systemic barriers, and individual challenges in hindering the mental health help-seeking process among Asian international students.

The findings of Miller et al. (2011) enrich our understanding of the intricate dynamics between acculturation, enculturation, and their effects on mental health and attitudes toward seeking professional psychological help among Asian international students. Their study revealed that higher levels of acculturation were linked to improved mental health outcomes, while a strong sense of behavioral enculturation was positively correlated with mental health.

This research unearthed significant differences in the experiences of foreign-born and U.S.-born students, particularly concerning the impact of acculturative stress on mental health. Such distinct finding underscores the complex challenges faced by Asian international students in the U.S., not only in navigating their mental health concerns but also in their attitudes toward seeking help. This complexity points to the necessity for a nuanced approach to providing culturally sensitive mental health services tailored to their unique experiences.

Study Aims

Building upon these insights, the present study aims to delve deeper into the underexplored terrain of Asian international students' perspectives on mental health treatment in the United States. Specifically, it seeks to: (1) Quantitatively assess the attitudes of Asian international students towards mental health treatment, examining factors such as gender, the duration of study in the U.S., education level, subjective socioeconomic status, and awareness and accessibility to mental health treatment options. (2) Propose targeted interventions based on the findings, aimed at improving access and effectiveness of mental health services for Asian international students. While related studies in Australia (Lamontagne, 2023; Mulder, 2015; Redfern, 2016) have begun to address this topic, the unique experiences of Asian students in the U.S. remain less explored.

Our research is inspired by Xu's (2023) qualitative study, which examined the factors influencing Chinese international students' barriers to psychotherapy in the U.S. Interestingly, Xu identified cultural differences as significant factors affecting attitudes toward mental health treatment, rather than as barriers. Xu also found that accessibility and knowledge about mental health were positively correlated with

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treatment attitudes. As a quantitative extension of this work, our study seeks to enhance understanding of the factors influencing the mental health treatment attitudes of Asian international students more broadly.

We hypothesize that several factors significantly influence Asian international students' attitudes toward seeking mental health treatment. These include gender, which may shape help-seeking behaviors due to societal norms and expectations prevalent in some Asian cultures. The duration of study in the U.S. is also considered a crucial factor, as it could affect levels of acculturation and, subsequently, attitudes toward mental health care. Furthermore, the level of education might influence such attitudes, with higher education potentially linked to increased mental health awareness. Subjective socioeconomic status is expected to play a role, affecting both the affordability of treatment and its perceived value. Equally important are the awareness of and accessibility to mental health treatment options; a lack of these may prevent Asian international students from seeking the help they need. By identifying these factors and understanding precisely how they influence attitudes towards mental health treatment, this study aims to uncover the nuances of mental health care perceptions and identify potential areas for improvement in accommodating Asian international students, particularly for whom English is a second language.

Our findings are expected to lead to the development of culturally sensitive and accessible outreach programs and interventions tailored to the unique needs of Asian international students within college counseling settings. The goal is to bridge between these students and the mental health services available to them, ensuring that interventions are designed with an accurate awareness of the challenges they face. By customizing outreach efforts and services to address the identified factors, we aim to foster more positive attitudes toward mental health treatment among Asian international students. Ultimately, this study seeks to enhance the overall mental health and well-being of this student population in the United States, contributing to a more inclusive and supportive academic environment.

Methods

This study focused on participants who met inclusion criteria. They had to be 18 years of age or older, enrolled full-time in a U.S. educational insti-

tution as international students, and self-identified as ethnically Asian. There were no specific exclusion criteria. Participants were recruited from a selection of one hundred universities across the U.S., which were randomly chosen from a comprehensive list of U.S. institutions. Our research team approached the International Student Office of each selected university via email to request permission to disseminate the recruitment email through their international student listservs. Upon receiving consent from the International Students Office, we distributed a recruitment email to the listservs. This email included a brief overview of the study and a link to the online survey, which was also accessible via a QR code.

Interested participants, upon accessing the survey, encountered a series of self-report questionnaires. These questionnaires were designed to gather socio-demographic data, including gender, age, and subjective socio-economic status. Additionally, the survey included the Attitudes Toward Seeking Professional Psychological Help (ATSPPH) and specific items to assess participants' awareness and accessibility of mental health treatment options. To gain a comprehensive understanding of the participants' mental health context, the survey also inquired about any existing mental health diagnoses and previous experiences with mental health treatment.

The study was conducted under the supervision of a university's Institutional Review Board to ensure ethical compliance. All participants were informed that they could withdraw from the study at any time without any penalty, ensuring their autonomy and respect for their decision-making. Additionally, data protection measures were implemented, with all survey responses stored in a password-protected electronic format on Qualtrics, and personal identifiers such as IP addresses were not collected. This approach guarantees that participants' confidentiality is maintained, and their contributions are securely managed, fostering an environment of ethical integrity in the research process.

A self-administered online questionnaire was developed via Qualtrics, encompassing two sections. The first section solicited sociodemographic information, including age, gender, ethnicity, nationality, and family income. Additionally, it comprised queries concerning the participants' current visa status, their educational institution's location, their year in college, their major, the number of years they have spent in the U.S., and

any previous experiences with mental health treatment. A copy of this measure can be found in Appendix A.

The questionnaire's second portion included items designed to elicit students' attitudes toward mental illness and treatment, utilizing Fischer and Turner's Attitudes Toward Seeking Professional Psychological Help (ATSPPH) scale from 1970. This is a 29-item measure comprised of four factors: recognition of the need for professional psychological help, stigma tolerance associated with psychological help, interpersonal openness about one's problems, and confidence in mental health professionals. This scale is frequently used in the U.S. to examine help-seeking attitudes among diverse racial and ethnic groups, immigrants, and international students. Sample statements include: "I would want to see a counselor if I was worried or upset for a long period of time" and "There are experiences in my life I would not discuss with anyone." Participants rated these statements on a four-point Likert scale, ranging from "Strongly Agree" to "Strongly Disagree." The scoring was such that "Strongly Agree" responses were assigned three points, while "Strongly Disagree" responses received one point. The total score for each participant was calculated by summing the points of each item's response. Eighteen items were reverse-coded, with a higher score signifying a more positive attitude toward mental health treatment.

The ATSPPH has demonstrated internal consistency, with coefficients ranging from 0.82 to 0.84 (Elhaïet et al., 2008). Its reliability and validity have been established in several studies; for instance, Fischer and Farina (1970) reported high internal consistency reliability coefficients (Cronbach's alpha) ranging from .82 to .93 across various samples. Vogel et al. (2006) found good 1-month test-retest (.80) and internal consistency (.84) reliabilities for the ATSPPH, as it correlated significantly with measures of mental health stigma and help-seeking behavior. Furthermore, the application of the ATSPPH in diverse research settings underscores its versatility and relevance in exploring attitudes toward mental health. By employing this validated scale, researchers can draw insights into the complex dynamics of stigma, cultural variability, and educational impacts on mental health behaviors (McAndrew et al., 2019; Park et al., 2018; Vogel et al., 2013). The decision to utilize the ATSPPH in this research is grounded in its proven capacity to provide reliable and valid measures across different populations and settings.

This choice reflects a methodological commitment to employing tools that not only have strong psychometric properties, but also offer the potential to contribute significantly to our understanding of key factors influencing mental health help-seeking behaviors.

The questionnaire's final section aimed to ascertain students' familiarity with counseling or psychotherapy treatment options. The items in this section were divided into two key areas, encompassing four items on awareness and three items on accessibility. Sample statements included: "I am aware of the mental health services available for students on campus" and "I can access mental health services when needed." Participants rating these statements as "Strongly Agree" were assigned four points, while "Strongly Disagree" responses were given one point. The total score for each participant was calculated by summing the points of each item's response. A higher score indicated greater awareness and accessibility to mental health treatment options. Given the lack of a validated scale specifically designed to assess the awareness and accessibility of mental health resources in a university setting, we developed our own concise survey. This decision ensured our inquiry precisely targeted our research objectives, examining the nuances of students' awareness and access to mental health support within their academic environments. This bespoke approach aligns closely with our research methodology, ensuring that we captured the specific aspects of mental health resource accessibility and awareness among university students, thereby enhancing the study's relevance and accuracy. This measure's full version can be found in Appendix B.

To evaluate the internal consistency reliability, Cronbach's alphas were calculated. We compared ATSPPH scores and awareness and accessibility scores according to participants' characteristics using an independent t-test or one-way analysis of variance (ANOVA). SPSS Statistics 28 (IBM Corp., Armonk, NY) was used to perform all statistical analyses, chosen for its widespread acceptance and reliability within the psychological research community. This software is particularly favored for its comprehensive set of tools that facilitate a broad range of statistical tests, including those employed in our study, thereby ensuring accuracy and efficiency in our data analysis. A p-value less than .05 was considered significant.

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Results

Of the 208 survey responses collected, 47 records were excluded since they did not satisfy the criteria for international students. Additionally, three responses were removed because they did not identify as Asian. Furthermore, 37 participants discontinued the survey after providing demographic information, and five participants bypassed more than eight questions. These instances were regarded as invalid responses and were consequently excluded from the analysis.

After eliminating invalid responses, a total of 116 participants provided valid data for the analysis. The majority (85.3%, $n=99$) were aged between 18 and 26 years old, including 43.1% ($n=50$) in the 18-22 age group and 42.2% ($n=49$) in the 23-26 age group. Meanwhile, 14.7% ($n=17$) were over 27 years old, with 9.5% ($n=11$) in the 27-30 age group and 5.2% ($n=6$) aged 30 or above, indicating their educational level. Approximately 51.7% ($n=60$) of participants were enrolled in graduate schools, slightly more than the 44.8% ($n=52$) who were college students.

In terms of ethnicity, 91.4% ($n=106$) identified as Chinese, 2% ($n=4$) as Vietnamese, 2% ($n=4$) as South Korean, 1% ($n=1$) as Pakistani, while the rest did not specify their ethnicity. Of the participants, 69.8% ($n=81$) identified as female, 25% ($n=29$) as male, and 5.2% ($n=6$) as nonbinary or preferred not to disclose their gender. Geographically, 44.8% ($n=52$) of participants were studying in New York State, with another 12.9% ($n=15$) in California. The top three majors were Psychology (30.2%), Business Management, Marketing, and Related Support (12.1%), and Education (9.5%), covering 18 major categories.

Regarding mental health history, 36.2% ($n=42$) reported prior mental health treatment, 18.1% ($n=21$) had a previous diagnosis of a mental disorder, and 12.1% ($n=14$) reported receiving ongoing mental health treatment. The study participants rated their subjective socioeconomic status (SES) on a scale of 1 to 10, where 10 represented the highest status with the most wealth, education, and prestigious jobs, and 1 represented the lowest status with the least wealth, education, and low-paying jobs or unemployment. On average, participants rated their subjective SES at 6.35, with a standard deviation of 1.41, and a mode of 7.

Table 2 presents the ATSPPH scores based on the participants' characteristics. One-way ANOVA suggested no significant difference was found be-

tween the mean ATSPPH scores of females, males, and the nonbinary/prefer not to say gender group (1.96 vs. 1.85 vs. 1.70, $p=.31$). However, a significant correlation was observed between educational level and ATSPPH scores. Specifically, an independent t-test suggested that participants enrolled in graduate school exhibited significantly higher mean ATSPPH scores compared to their undergraduate counterparts respectively (2.01 vs. 1.82, $p=.004$).

Moreover, the analysis, conducted using one-way ANOVA, revealed a significant correlation between age groups and ATSPPH scores ($p=.036$). Participants aged 30 and above reported the highest mean ATSPPH score of 2.14, with a standard error of the mean (SEM) of .16, suggesting a more positive attitude towards mental health treatment. This was followed by the 23-26 age group, which had a mean score of 2.02 and an SEM of .04. Notably, the 18-22 and 27-30 age groups displayed comparable mean scores of 1.84, with SEMs of .06 and .12, respectively. These findings further emphasize the potential influence of age on attitudes towards mental health treatment.

Although the independent t-test results were not statistically significant, participants with a history of mental health treatment, either past or current, exhibited slightly higher mean ATSPPH scores compared to those without such history (2.00 vs. 1.88, $p=.077$). This observation warrants further investigation in future studies.

Table 3 showcases the item-total correlations and Cronbach's alpha values related to the awareness and accessibility of mental health treatment. The Cronbach's alpha for this entire section was found to be .903, indicating high internal consistency within the section.

Table 4 illustrates the two-tailed Pearson correlation associations between socio-demographic characteristics and ATSPPH scores. Univariate analyses revealed significant positive associations between family income ($r=.243$, $p=.009$) and years spent in the US ($r=.245$, $p=.008$) with ATSPPH scores. Furthermore, the table presents the Pearson correlation between socio-demographic factors and ATSPPH scores, as well as between the awareness and accessibility of mental health treatment. Notably, the number of years spent in the US ($r=.230$, $p=.014$) showed a significant positive association with awareness. Additionally, both awareness ($r=.331$, $p<.001$) and accessibility ($r=.234$, $p=.012$) displayed signifi-

icant positive correlations with ATSPPH scores. Moreover, awareness was significantly and positively associated with accessibility scores ($r=.826, p<.001$).

Discussion

Our findings suggest that certain factors, including higher family income, longer duration spent in the US, enhanced awareness of mental health treatment, and improved accessibility to mental health services, are associated with more positive attitudes towards seeking professional psychological help among Asian international students.

Redefining Gender Norms

The findings of the current study indicate that gender does not significantly influence the attitudes of Asian international students toward seeking psychological help, with female, male, and nonbinary or unspecified gender groups exhibiting similar tendencies regarding mental health treatment. This observation contracts traditional views within Asian cultures, which often depict men as stoic and decisive, burdened with greater social expectations and responsibilities (Kramer, 2002). Such gender norms have been linked to social stigma, potentially informing negative attitudes among men toward mental health treatment (Chatmon, 2020; Livingston, 2018). However, our results indicate a departure from these conventional beliefs, especially among the younger generation of Asian international students. Zhang and Hui (2021) provide corroborating evidence, suggesting that exposure to Western norms among Asian international students might attenuate the influence of traditional gender roles on their help-seeking behavior.

Contemporary research emphasizes the role that educational settings play in transforming beliefs and attitudes. Scholz et al. (2016) assert that environments fostering gender equality and mental health awareness can lessen the impact of deep-seated cultural stereotypes on help-seeking behavior. This finding is supported by Tse and Haslam (2021), who found that Asian international students are likely to adopt help-seeking behaviors within supportive and inclusive academic communities, irrespective of gender. In addition, advancements in mental health advocacy and the proliferation of information through digital media have likely contributed to this trend. Both Niederkröthaler et al. (2014) and Kim (2022) stress the role of online platforms and media in normalizing dis-

cussions around mental health, potentially narrowing the gender gap in attitudes toward seeking assistance.

Given these findings, it seems that the younger, globally-minded Asian international students are embracing more progressive views on mental health, consistent with the inclusive attitudes prevalent in their host nations. This shift implies that while conventional cultural expectations might continue, they are being reshaped by the combined effects of acculturation, the influence of educational environments, and the worldwide discourse on mental health.

However, it is important to point out that the gender imbalance in the study sample, with a higher number of female participants, may suggest inherent differences in help-seeking attitudes between genders among Asian international students. This imbalance could indicate that female students are more willing or able to participate in studies about mental health, reflecting a broader openness towards seeking help or discussing mental health issues. For the study's results, this means conclusions drawn about gender effects on help-seeking attitudes might not fully represent the male and nonbinary perspectives, potentially skewing the perceived shift towards more progressive views on mental health. Further research with balanced and diverse gender representation is crucial to accurately assess these attitudes and their implications in the context of cultural and acculturation influences on Asian international students in the U.S.

Influence of Education on Mental Health Help-Seeking

Our results reveal differences in the willingness to seek mental health assistance across various educational levels, reinforcing the well-established correlation between higher educational attainment and more proactive attitudes toward seeking mental health support (Eisenberg et al., 2007; Eisenberg et al., 2013; Jorm, 2004; Wong et al., 2017). Specifically, our data indicate that individuals engaged in graduate school education are more likely to hold and express favorable attitudes toward utilizing mental health services. This tendency is likely due to the increased exposure to mental health discussions that higher education provides, fostering comfort in seeking help (Farley, 2023). Institutional initiatives, such as university-led mental health awareness campaigns and accessible counseling services, create an environment that normalizes help-seeking behavior (Pace et al., 2016). The academically stimulat-

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ing environment of higher education, which promotes critical thinking and self-reflection, may heighten students' awareness of their mental health needs, and encourage proactive help-seeking (Liu et al., 2021).

Furthermore, in a 2021 report by The National Academies of Sciences, Engineering, and Medicine titled "Mental Health, Substance Use, and Wellbeing in Higher Education: Supporting the Whole Student," the importance of integrating topics of psychological well-being and mental health literacy into the curriculum and classes within higher education institutions is emphasized, further strengthening students' attitudes towards mental health services. The impact of this education is particularly pronounced among Asian international students, who may originate from cultures where open discussions about mental health are less prevalent (Dessauvague et al., 2022). The study result underscores the significant role that educational environments play in shaping the mental health-seeking behaviors of students, with a notable effect on Asian international students who may face cultural barriers to acknowledging and addressing mental health issues.

While it has been observed that higher education levels correlate with positive attitudes toward mental health, and a longer stay in the U.S. enhances mental health awareness among Asian international students, the relationship between these two factors is complex. It is not straightforward to link prolonged U.S. residency with higher education levels due to varied arrival times in the U.S. for education. For example, an individual who came to the U.S. solely for a Ph.D. program might have a five-year stay, whereas another person who arrived during middle school and only completed a bachelor's degree could have resided in the U.S. for a longer duration. Since detailed data on the duration of stay relative to educational attainment is not available, making definitive assumptions about their relationship is challenging. Future research could explore how the length of stay and educational level together impact mental health awareness, considering the diverse educational pathways of Asian international students in the U.S.

Wealth and Wellness

Our study uncovered a significant positive association between family income and Attitudes Toward Seeking Professional Psychological Help (ATSPPH) scores. Students from higher-income families showed more positive attitudes toward seek-

ing mental health treatment. This observation aligns with existing research suggesting that financial capabilities often improve access to mental health care services (Cummings et al., 2013). Families with higher incomes not only have the financial resources to afford mental health treatment, but their children are also more likely to receive a higher level of education. This educational advantage typically fosters a more informed and proactive attitude towards mental health help-seeking (Mackinnon et al., 2010).

The correlation between family income and attitudes towards mental health can be attributed to broader socio-economic factors that shape an individual's access to healthcare and information. According to a longitudinal survey study by Bialowolski (2021), economic stability often correlates with improved mental health literacy, a critical factor in recognizing mental health issues and seeking appropriate help. Additionally, the financial security provided by higher-income families may reduce the stress and anxiety associated with financial constraints, which are known barriers to mental well-being (Knapp & Wong, 2020). Ryu and Fan (2023) found that financial stress significantly impacts students' mental health, indicating that higher family income can indirectly contribute to better mental health by alleviating such stressors.

Furthermore, students from affluent families might have earlier and more frequent exposure to mental health discussions and treatments, either through their family network or community, normalizing the concept of seeking help for mental health issues. Cultural perceptions within one's immediate social circle, including family, significantly influence attitudes towards mental health services (Aarons & Sawitzky, 2006; Turner et al., 2015).

In summary, family income emerges as a pivotal factor in shaping attitudes towards mental health treatment among Asian international students. This underscores the need for comprehensive mental health strategies that consider the socio-economic backgrounds of students to ensure equitable access to mental health resources.

Acculturation and Mental Health Attitudes

Our results indicate that a prolonged stay in the U.S. leads to increased mental health awareness among Asian international students. This increase is not merely a byproduct of time, but is intricately linked to the influence of the American education system,

which prioritizes mental health education and support. U.S. educational institutions proactively offer resources aimed at student well-being, ranging from admission orientations that introduce mental health topics to ongoing support services. Such consistent exposure not only deepens students' understanding of mental health issues but also cultivates a proactive attitude towards seeking help (Eisenberg et al., 2009).

Acculturation plays a pivotal role in this dynamic, serving as a bridge between mere exposure and active integration of healthier attitudes toward mental health. Over time, Asian international students assimilate not just superficial elements of American culture but also its progressive stances on mental health. Research by Knaifel et al. (2022) found that increased acculturation correlates with decreased stigma around mental health, thereby facilitating help-seeking behaviors. The social networks that students develop over time in the U.S. can also influence their attitudes toward mental health. Peer interactions, especially with students who embody more liberal views on mental health, serve as a catalyst for changing perceptions and reducing the stigma associated with seeking psychological help (Makhmud et al., 2022; Sun et al., 2022). Moreover, increased familiarity with the U.S. healthcare system over time can reduce barriers to accessing mental health services. As students become more knowledgeable about available resources and how to navigate the system, their willingness to seek help may increase (Alqassim et al., 2022).

The observed changes suggest that cultural competence in mental health strategies is not just beneficial, but essential. The process through which students' attitudes toward mental health evolve highlights the critical need for culturally sensitive approaches to mental health support. It points to the necessity of designing mental health interventions and resources that are not only accessible, but also resonate with the diverse cultural backgrounds of international students. This perspective encourages a more nuanced understanding of how cultural factors influence mental health awareness and help-seeking behaviors. By fostering an environment that values cultural competence, educational institutions can play a transformative role in supporting the mental well-being of international students, making a case for the integration of cultural sensitivity into all levels of mental health strategy and intervention planning.

We recognize that the predominance of Chinese international students in our sample presents a limitation that may not fully encapsulate the diverse experiences and attitudes toward mental health found across different Asian cultures. This sampling bias indeed restricts our ability to generalize our findings to all Asian international students. However, it also provides a unique opportunity to reflect on the differences within Asian cultures, especially concerning mental health perspectives. For instance, cultural attitudes toward mental health in Chinese society, which are often influenced by Confucian values emphasizing stoicism and familial harmony, might differ significantly from those in other Asian cultures where religion and individualism play a more substantial role (Tung & Li, 2014).

While our study's limited sample size of participants from other ethnicities constrains the statistical power to make broad comparisons, preliminary observations suggest that Chinese international students may exhibit particular coping strategies, stigma perceptions, and help-seeking behaviors that are shaped by their cultural background (Chen et al., 2020). The influence of collectivist values in Chinese culture may lead to a greater emphasis on maintaining social harmony and face, potentially affecting students' willingness to seek mental health support (Gao et al., 2022). In contrast, students from South Asian cultures, where there is a different interplay between individualism and collectivism, or from Southeast Asian countries, where community support systems and religious beliefs might offer alternative coping mechanisms, could exhibit distinct attitudes and behaviors towards mental health challenges (Kim & Lee, 2022; Singal & Chopra, 2023). Given these considerations, it becomes evident that future research must strive for a more diverse representation of Asian international students to explore the intricate ways in which cultural factors influence mental health perceptions and help-seeking behaviors.

In summary, the duration of stay in the U.S. is a significant factor in developing mental health awareness among Asian international students. This relationship underscores the need for educational institutions to continuously engage with international students throughout their educational journey, fostering an environment conducive to mental health awareness and help-seeking. However, it is essential to empirically validate which specific elements of the U.S. education system contribute most significantly to this

heightened awareness. Future research should aim to dissect these aspects to better understand and enhance the support systems available to international students.

Navigating Mental Health Pathways

Our study revealed that heightened awareness and accessibility to mental health services are crucial in shaping positive attitudes toward mental health treatment among Asian international students. Specifically, students who are well-informed about available mental health resources, possess the ability to effectively navigate these resources, and have unobstructed access to services, tend to exhibit more favorable attitudes toward seeking mental health treatment. This correlation underscores the vital role that educational institutions play in providing comprehensive mental health education and ensuring the availability of robust support systems (Lipson, 2014).

Awareness and accessibility are interconnected factors that significantly influence mental health outcomes. A study by Shim et al. (2022) highlighted that knowledge about mental health issues and familiarity with treatment options can significantly reduce the stigma associated with seeking help. When institutions make a concerted effort to provide easily accessible mental health services, they normalize the process of seeking help, thereby encouraging students to take proactive steps toward their mental health. The unique challenges faced by Asian international students, such as cultural barriers and unfamiliarity with the host country's healthcare system, further accentuate the need for targeted mental health initiatives. Martirosyan et al. (2019) suggested that tailored programs that address the specific needs of international students can effectively increase their awareness and utilization of mental health services.

Another critical aspect is the use of technology in improving accessibility. Digital platforms and telehealth services have been identified as effective means to overcome geographical and logistical barriers, providing students with easier access to mental health care (Bulkes et al., 2022; McBain et al., 2023). This approach is particularly beneficial for international students who may face language barriers or have limited transportation options.

In conclusion, our study highlights the significance of awareness and accessibility in fostering positive attitudes toward mental health treatment among Asian international students.

Educational institutions play a crucial role in enhancing these factors through strategic initiatives and resource allocation, ultimately contributing to the mental well-being of this student population.

Conclusion

The current study elucidates the multifaceted factors shaping Asian international students' attitudes toward seeking professional psychological help in the U.S. It reveals not only the significance of socioeconomic status, duration of stay, gender norms, educational attainment, and acculturation but also underscores the paramount importance of mental health awareness and accessibility. Our findings demonstrate a progressive shift away from traditional gender norms, reflecting a broader cultural adaptation among Asian international students influenced by supportive educational environments and acculturation processes. The positive correlation between socioeconomic status and attitudes towards mental health help-seeking highlights it as a critical factor in access to mental health care.

Moreover, the study brings to light how heightened awareness and unimpeded accessibility to mental health services are indispensable in cultivating positive attitudes toward mental health treatment. Students who are well-informed about and able to navigate mental health resources effectively show a greater propensity to seek professional help. This emphasizes the critical role of educational institutions in promoting mental health literacy and ensuring the availability of comprehensive support systems. These findings advocate for a departure from traditional cultural norms and underscore the necessity of implementing supportive, inclusive, and culturally competent mental health strategies within both educational and healthcare settings. As we pivot to the clinical and research implications of our study, it becomes crucial to leverage these insights in devising targeted interventions that address the unique needs of Asian international students. This approach necessitates a nuanced understanding of how cultural, socioeconomic, educational, and systemic factors converge to influence mental health help-seeking behaviors, aiming to foster environments that enhance mental health awareness and ensure equitable access to mental health services.

Clinical and Research Implications

Drawing upon our study's findings, we recommend that university counseling centers and therapists who work with Asian international students imple-

ment outreach programs aimed at boosting mental health awareness through comprehensive, culturally sensitive education and resources. Emphasizing the significance of mental well-being and reducing stigma around seeking help is pivotal, with initiatives potentially encompassing orientation programs, workshops, informational materials, and online resources, as advocated by Reavley et al. (2012). To meet the diverse needs of this demographic effectively, it is essential to tailor services by offering varied workshops or support groups and collaborating with departments such as International Student Services to develop a unified support strategy, as echoed by Pedersen and Pave (2014). Enhancing services' accessibility and affordability, addressing financial constraints through information on insurance and financial aid, and simplifying the access process is critical to overcoming barriers to care, as noted by Komiya et al. (2000). Moreover, partnering with student organizations can lead to more targeted, culturally attuned programming, enhancing the effectiveness of mental health education for Asian international students. This holistic approach, integrating varied services and collaborative efforts, promises a more supportive and inclusive environment conducive to their mental health needs.

To address these challenges effectively, we propose the following detailed action plans and strategies:

Step 1: Developing Culturally Informed Outreach Programs

Assessment of Needs. Conduct surveys and focus groups with Asian international students to understand their specific mental health concerns, preferences for receiving information, and barriers to accessing services.

Program Design. Based on the assessment, design outreach programs that incorporate culturally sensitive materials and resources. These should address common mental health issues, debunk myths and stigma associated with seeking help, and highlight the importance of mental wellness.

Implementation. Launch the programs through various channels, including orientation sessions for new students, workshops throughout the academic year, and online platforms that provide 24/7 access to resources.

Step 2: Tailoring Services to Diverse Needs

Service Diversification. Expand the range of services to include not only traditional one-on-one

counseling, but also support groups, workshops, and seminars that focus on issues pertinent to Asian international students.

Language and Cultural Competency. Ensure that counseling staff are trained in cultural competency and, where possible, provide services in multiple languages or offer interpreter services to mitigate language barriers.

Feedback Mechanism. Establish a system for collecting feedback on the services provided, enabling continuous improvement and adaptation to student needs.

Step 3: Enhancing Accessibility and Affordability of Mental Health Services

Financial Support Information. Clearly communicate information about the cost of services, insurance coverage, and financial aid options for mental health care, including partnerships with community providers for affordable treatment options.

Simplified Access. Streamline the appointment scheduling process and reduce wait times by leveraging technology for booking sessions and offering virtual counseling options.

Community Provider Partnerships. Develop partnerships with local mental health providers to offer extended services to students, ensuring continuity of care for those requiring long-term support.

Step 4: Collaborating with Campus and Student Organizations

Partnership Development. Foster collaborations with campus departments, such as international student services and diversity and inclusion offices, to create a unified approach to supporting Asian international students' mental health.

Student Organization Engagement. Actively work with student organizations, including any Asian student organizations and international student groups, to co-host events, provide culturally relevant programming, and facilitate peer support networks.

Step 5: Integrating Culturally Informed Practices

Training for Counselors and Staff. Implement ongoing training programs on cultural competence, focusing on the unique challenges faced by Asian international students, including those with advanced degrees and other specific groups.

Incorporation of Cultural Practices. Explore the integration of traditional Asian mental health

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practices and perspectives into counseling services, offering a blend of Western and Eastern approaches to treatment.

By systematically implementing these strategies, university counseling centers can significantly improve the mental health support system for Asian international students, fostering a more inclusive, supportive, and culturally sensitive environment. This tailored approach not only aligns with our study's findings, but also sets a foundation for future research and continuous improvement in the delivery of mental health resources.

To ensure these interventions remain effective and responsive, it is crucial to establish mechanisms for ongoing evaluation and improvement. Regular feedback collection from students, staff training updates based on the latest research, and continuous assessment of program outcomes are essential. Incorporating a cycle of evaluation, feedback, and refinement will enable counseling centers to adapt their strategies to meet the evolving needs of Asian international students, demonstrating a commitment to providing the highest level of mental health support. This proactive stance towards constant enhancement ensures that mental health initiatives remain aligned with student needs, cultural shifts, and advancements in psychological research, thereby sustaining a dynamic and effective support system.

Strengths and Limitations

Several limitations may impact the generalizability of the findings from this study, necessitating caution when extending these results beyond the sampled population. Primarily, the recruitment of participants was confined to a limited number of universities, predominantly located in New York and California. Given the unique sociocultural and educational environments of these states, the relatively large percentage of the sample drawn from these locations may introduce a selection bias, limiting the representativeness of the study. This geographic concentration may not fully capture the varied experiences and perspectives of Asian international students across the U.S., making it prudent to apply these findings to other regions or demographics with caution.

The overrepresentation of Chinese international students within our sample poses another significant limitation. While providing variable insights into this subgroup, it might not accurately portray the attitudes and experiences of students from other

Asian countries, potentially skewing the results towards the perspectives prevalent within Chinese student communities. This disproportionate representation underscores the need for a more diverse sample that includes a wider array of nationalities, to ensure a more comprehensive understanding of the mental health attitudes of Asian international students.

Moreover, the cross-sectional nature of this study limits the ability to infer causality or track changes in attitudes over time. The reliance on a survey that, while informative, may not have undergone extensive validation or been widely used in previous research to assess mental health awareness and accessibility among Asian international students, presents a limitation in accurately gauging the effectiveness of existing support structures. The use of a non-validated survey can introduce biases or inaccuracies in measuring the intended constructs, limiting the reliability and generalizability of the results. Potential confounding variables, such as the participants' prior exposure to mental health education, variations in cultural background, and personal experiences with mental health services, were not fully controlled in our method. These factors could influence participants' responses and interpretations of the survey questions, thereby affecting the study's overall conclusions. Longitudinal studies would be required to understand the evolution of mental health attitudes and behaviors as students adapt to their host country's culture and education system. Such an approach would also allow for the examination of how prolonged exposure to the U.S. education system and its mental health resources impacts students from various Asian backgrounds over time.

By acknowledging these limitations, we emphasize the need for caution in generalizing the study's findings beyond the specific universities or states in our sample, or the predominant representation of Chinese students. This acknowledgment is crucial for readers to understand the study's contextual limitations, ensuring a nuanced interpretation of the results. Future research should aim to employ more robust sampling methods to ensure a broader and more representative sample of Asian international students from multiple states and countries.

Implementing stratified or random sampling techniques could help mitigate some of the biases inherent in convenience sampling. Additionally, expanding the geographic scope of the study and including

ing the geographic scope of the study and including longitudinal elements could provide a richer, more nuanced understanding of the mental health attitudes and needs of this diverse student population. Incorporating qualitative research methods such as focus groups or interviews can significantly enhance our understanding of the intricate factors influencing Asian international students' attitudes toward mental health treatment. For instance, insights into the specific cultural misconceptions about mental health can inform targeted educational campaigns, while understanding preferences for certain types of support can guide the development of more effective, culturally sensitive counseling approaches.

Despite the outlined limitations, this study offers data about international students of Asian descent studying in the U.S., explicitly examining their attitudes toward seeking mental health assistance. The research fills a gap in the existing literature, which predominantly focuses on domestic college students. This study's findings illuminate the attitudes of a distinctive group of students who grapple with unique cultural and linguistic barriers. These students may be reluctant to seek mental health assistance due to factors like social stigma. Consequently, the insights offered by the current research are vital for understanding the help-seeking behaviors of Asian international students. They can inform the design of targeted interventions and services to address their mental health needs.

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ASIAN INTERNATIONAL STUDENT MENTAL HEALTH HELP-SEEKING

Appendix A

Eligibility Screening Questions

Are you currently attending school as an international student? (F-1, J-1, etc.)	Yes No
What is your ethnicity?	Asian Black or African American Hispanic or Latino Native American or American Indian Pacific Islander White Other

Demographic Information

What is your age?	18-22 years old 23-26 years old 27-30 years old 30+ years old
What is your gender?	Female Male Others (please specify) Prefer not to say
What is your nationality?	China India Japan Philippines Vietnam Thailand North Korea Singapore Other
This scale from (1) to (10) represents where people stand in society. Number (10) represents the people who are the best off, those who have the most money, most education, and best jobs. Number (1) represents the people who are the worst off, those who have the least money, least education, worst jobs, or no job. Please choose the number that best represents where you think you stand.	(1) (2) (3) (4) (5) (6) (7) (8) (9) (10)
Where is your school located?	(Locations/States)
What is your classification in college?	Freshman/first year Sophomore Junior Senior Graduate student Unclassified

XU

<p>Which of these fields best describes your major, or your anticipated major?</p>	<p>Agriculture, Agriculture Operations, and Related Science Architecture and Related Services Area, Ethnic, Cultural, Gender, and Group Studies Aviation Biological and Biomedical Sciences Business, Management, Marketing, and Related Support Communication, Journalism, and Related Programs Communications Technologies/technicians and Support Computer and Information Sciences and Support Service Construction Trades Education Engineering English Language and Literature/letters Family and Consumer Sciences/human Sciences Foreign Languages, Literatures, and Linguistics Health Professions and Related Programs History Human Services Legal Professions and Studies Liberal Arts and Sciences Studies and Humanities Library Science Mathematics and Statistics Mechanic and Repair Technologies/technicians Multi/interdisciplinary Studies Natural Resources and Conservation Philosophy and Religious Studies Physical Sciences Psychology Science Technologies/technicians Social Sciences Theology and Religious Vocations Transportation and Materials Moving Visual and Performing Arts Others</p>
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ASIAN INTERNATIONAL STUDENT MENTAL HEALTH HELP-SEEKING

Demographic Information (cont.)

How many years have you studied in the USA?	Less than a year 1 year 2 year 3 year 4 year 5 year 6 year 7 year 8 year 9 year 9+ year
Have you ever been diagnosed with a mental disorder before?	Yes No
Have you ever had any mental health treatment before (therapist, medication, interventions etc.)?	Yes No
Are you currently involved in any mental health treatment?	Yes No

Appendix B

Awareness and Accessibility to Mental Health Treatment

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
I am aware of the mental health services that are available for students on campus.					
If I feel unwell, I know how to seek credible information about mental health.					
I know how to get the emergency mental health treatment if needed.					
I am aware of the mental health services that are available for me in the community.					
I am able to get access to mental health service when needed.					
I know how to find a therapist in my current location.					
There are no financial barriers for me to get mental health treatment.					
I will miss school classes if I feel mentally unwell.					

ASIAN INTERNATIONAL STUDENT MENTAL HEALTH HELP-SEEKING

Table 1

Social-demographic characteristics and SES of respondents

Social-demographic characteristics		Surveyed respondents (n=116)	
		N	%
Gender	Men	29	25.0
	Women	81	69.8
	Nonbinary/prefer not to say	6	5.2
Age group (years)	18-22	50	43.1
	23-26	49	42.2
	27-30	11	9.5
	30+	6	5.2
Education Level	Undergraduate	52	44.8
	Graduate	60	51.7
	Unclassified	4	3.4
Ethnics	Chinese	106	91.4
	Others	10	8.6
School Location	NY	52	44.8
	CA	15	12.9
	Others	49	42.2
Major	Psychology	35	30.2
	Business	14	12.1
	Education	11	9.5
	Others	56	48.3
Previous Diagnoses		21	18.1
Previous Treatment		42	36.2
Current Treatment		14	12.1
SES Score	1	2	1.7
	3	1	0.9
	4	5	4.3
	5	20	17.2
	6	27	23.3
	7	39	33.6
	8	17	14.7
	9	2	1.7
	10	1	0.9

Table 2*Comparison of ATSPPH according to participants' characteristics*

Characteristics	ATSPPH scores (Mean SD)	<i>p</i>
Gender		
Male	1.85(.07)	.31
Female	1.96(.04)	
Nonbinary/prefer not to say	1.70(.13)	
Age group		
18-22	1.84(.06)	.036*
23-26	2.02(.04)	
27-20	1.84(.12)	
30+	2.14(.16)	
Education Level		
Undergraduate and others	1.81(.05)	.004**
Graduate	1.93(.04)	
Treatment		
Previous Tx	1.99(.06)	.077
No Tx	1.89(.04)	

Note. * $p < .05$, ** $p < .01$

ASIAN INTERNATIONAL STUDENT MENTAL HEALTH HELP-SEEKING

Table 3

Item-total correlations and Cronbach's alphas for awareness and accessibility for mental health treatment (N=116)

Items	Item-total correlation	Cronbach's α
I am aware of the mental health services that are available for students on campus.	0.807	0.903
If I feel unwell, I know how to seek credible information about mental health.	0.849	x
I know how to get the emergency mental health treatment if needed.	0.814	x
I am aware of the mental health services that are available for me in the community.	0.829	x
I am able to get access to mental health service when needed.	0.881	x
I know how to find a therapist in my current location.	0.828	x
There are no financial barriers for me to get mental health treatment.	0.631	x
I will miss school classes if I feel mentally unwell.	0.563	x

Table 4*Association between characteristics variable and ATSPPH scores*

Column Label	ATSPPH r value	<i>p</i>
Family Income	.243	0.009**
Years in US	.245	0.008**
Awareness	.331	<0.001**
Accessibility	.234	0.012*
	Accessibility r value	<i>p</i>
Awareness	.826	<0.001**

Note. * $p < .05$, ** $p < .01$