

# UNDERSTANDING MENTAL HEALTH SERVICES AND HELP-SEEKING BEHAVIOURS AMONG COLLEGE STUDENTS IN VIETNAM

Ngoc Cindy Pham<sup>1</sup>, Yuanqing Li<sup>2</sup>, Tofazzal Hossain<sup>3</sup>, Claudio Schapsis<sup>1</sup>, Huan Henry Pham<sup>4</sup>, Michael Minor<sup>5</sup>, PhD

1. CUNY – Brooklyn College, New York, USA
2. Dominican University, IL, USA
3. PrimeAsia University, Dhaka, Bangladesh
4. Houston Community College, TX, USA
5. University of Texas - Rio Grande Valley, TX, USA

Correspondence: dr.ngocphamcindy@gmail.com

## ABSTRACT

### OBJECTIVE

Mental health is a significant topic, especially in the context of the COVID-19 pandemic. While there is higher prevalence, there is less attention, to mental health problems among Asian college students, so the authors decided to investigate the effectiveness and efficiency of mental health services and help-seeking behaviors in Vietnamese universities. By conducting this study, the authors hoped to contribute to current literature on the factors that contribute to professional mental health help-seeking behavior of college students in Vietnam and to suggest strategies to reduce possible barriers that prevent them from looking for professional medical help.

### DESIGN

For this cross-sectional research, we first conducted a pilot study to test the reliability and validity of our measurements. We then made necessary adjustments and distributed the final questionnaires to a university in Ho Chi Minh City, Vietnam. Collected data was analyzed through exploratory factor analysis

### RESULTS

Results indicate that between psychological openness and help-seeking propensity, in our model, help-seeking propensity more significantly explains students' help-seeking behavioral intentions than the other two.

### CONCLUSIONS

Using the Theory of Planned Behavior, this study examined predictors of professional mental health-seeking behavior among college students in Vietnam. Our findings indicated that help-seeking propensity significantly influences Vietnamese students' intention to obtain professional healthcare. Through this study, we suggested some guidance to the school administrators on the factors that encourage students to seek professional mental care.

### KEYWORDS

Mental health services, Help-Seeking, College students, Vietnam, COVID-19

## INTRODUCTION

Studies on healthcare topics in underserved populations in general and mental health in particular are calling for more attention. [1, 2, 3] Mental health services are becoming increasingly important since mental disorders contribute a large portion of the illness burdens for all countries. [4] Such a burden of mental illness is a significant global public health issue. [5] Based on the influence of policy, legislation, and cultural backgrounds, Vietnam's mental health services remain highly demanding and challenging. The limited access to health care services caused by the economic and social reform program in Vietnam, the lack of mental health legislation, and shortage of mental health services, create more problems for those suffering from mental disorders. [4]

Among vulnerable groups of people who suffer from this situation, college students require particular attention. Mental disorders are common among college students, [6] a segment of the population that many consider as a privileged group which is immune to mental related illnesses [7]. Compared to the considerable attention and treatment of mental disorders among elementary and secondary school students, there is an insignificant amount of information about the situation and treatment of college students' mental illness. [6, 8]

As college life could be a stressful time for many, mental disorders are increasing in occurrence and severity among college students. [7] They are under much pressure from academic courses, homesickness, as well as work and family responsibilities. [9] A meta-analysis of twenty-four articles regarding mental illness worldwide (1990-2010) reveals that the prevalence of depression among college students is dramatically higher than the general population. [10] Since college years are a challenging transition to adulthood and essential development stages, untreated mental illness could easily impact the students' academic success, productivity, [7] occupation, health, and social outcomes. [11]

The novel coronavirus disease 2019 (COVID-19) forced many universities to close their doors, and migrate their classes to an online format, causing distress among students and academic staff. [12] Recent studies show that social distancing, including its extreme forms of isolation and quarantine required due to the COVID-19 pandemic public policies, triggered cases of depression and anxiety.

[13] Another study found that more than 50% of their sample view that psychological impact as moderate-to-severe. [14] Students from Chinese origin, facing the risk of hate crimes due to stereotypes and prejudices rooted in the origins of the pandemic, developed additional stress, anxiety, and other mental health ailments. [15]

Despite this situation, most of the adults with mental disorders (especially students) do not receive proper mental health attention. [16] Compared to Western countries, Asian countries suffer more of this problem due to their tendency to stigmatize and discriminate persons with mental disorders. Individuals suffering from mental disorders are usually socially isolated because they are considered dangerous and aggressive. [17] Based on those reasons, mental service seeking was less common among Asian college students with lower socioeconomic backgrounds. [7] More importantly, male Asian students from lower socioeconomic backgrounds showed a significantly higher frequency of mental health problems and higher risk of depressive and anxiety symptoms compared to other ethnic groups. [7, 8]

Given the unique characteristic of college encompassed residents and social networks, mental health services among college students is not only a growing concern but also an opportunity to identify, prevent, or treat mental disorders. [7, 18] Based on the unique needs of college students, reducing the barriers to help-seeking behaviors [18] and effective treatment of mental disorders, may recover and improve their educational and psychosocial functioning, resulting in substantial long-term benefits. [6, 18]

Consequently, this study aims at examining the antecedents of professional mental health help-seeking behaviors among Vietnamese college students. This paper attempts to assist healthcare providers in Vietnam to understand the motivation behind consumers' seeking professional mental help. By conducting this study, we hope to contribute to mental disorders treatments among Vietnamese college students and reduce the possible barriers to help-seeking behaviors.

Note: Throughout this paper we will follow the United States Department of Health and Human Services [19] definitions of Mental Health as "the successful performance of mental function, resulting in productive activities, fulfilling relationships with other people, and the ability to adapt to change and to cope with adversity."; Mental Illness as "the

term that refers collectively to all mental disorders, which are health conditions characterized by alterations in thinking, mood, or behavior (or some combination thereof) associated with distress and/or impaired functioning"; and Mental Health Problems as "signs and symptoms of insufficient intensity or duration to meet the criteria for any mental disorder."

## LITERATURE REVIEW ON MENTAL HEALTH IN VIETNAM

Only a few studies have been published about the prevalence of mental health problems in Vietnam. [20] An incidence of mental distress was found in a rural area of Vietnam, with only 5% of the patients receiving formal treatments from mental health facilities. [21] Mental health services in Vietnam are unable to meet the high demand for such care. More attention is required to increase the number of mental health caretakers and mental health services capacity. [4]

### CULTURAL AND SOCIAL BACKGROUNDS

Mental health services in Vietnam are under much criticism for its ambiguous policy, lack of health insurance and hospital coverage of treatments, and increased stigmatizing forms of service provision. [22] There is a lack of information on the perceptions of mental health and help-seeking behavior in Vietnam. [5] Misunderstanding of mental illness and the treatment preference of combining medical therapy and family care are the two main characteristics of Vietnam mental health services. [20]

Based on different cultural backgrounds, Vietnamese and US college students show different viewpoints towards mental health issues. US participants view mental illness problems as a chemical imbalance, while Vietnamese students believe people with mental illness are dangerous and disabled. [5]

### STIGMA

A study conducted among Vietnamese Americans and Vietnamese nationals showed that both groups displayed a more definite stigma toward those with mental illnesses. [23] For the Vietnamese individual, the stigma is not just towards mental illness but also mental health problems and psychological symptoms. [24] Urban residents in Vietnam have more perceived stigma and discrimination toward people with mental health problems than rural residents. [24] Moreover, Vietnamese students tend to have stronger stigmas towards individuals with mental illness than U.S. college students. [5] Stigma toward mental illness results in reducing help-seeking behaviors from mental health professionals. [25] Hence, it is critical to reduce and control the issue of stigmatization. Thus, those affected in Asia will be willing to seek appropriate help. [17]

### HELP-SEEKING

Perceptions of mental health and help-seeking behaviors of the Vietnamese are affected by Vietnamese concepts of mental health, which are based on a mix of traditional and modern views. [20, 26] Vietnamese's views of mental health help-seeking may be related to their alternative help resources such as family and friends, their level of knowledge about mental illness and potential stigma. [20, 27] 20% of Vietnamese college students who understand the nature of depression and the importance of professional mental health treatments expressed their hesitation of seeking mental help. [28]

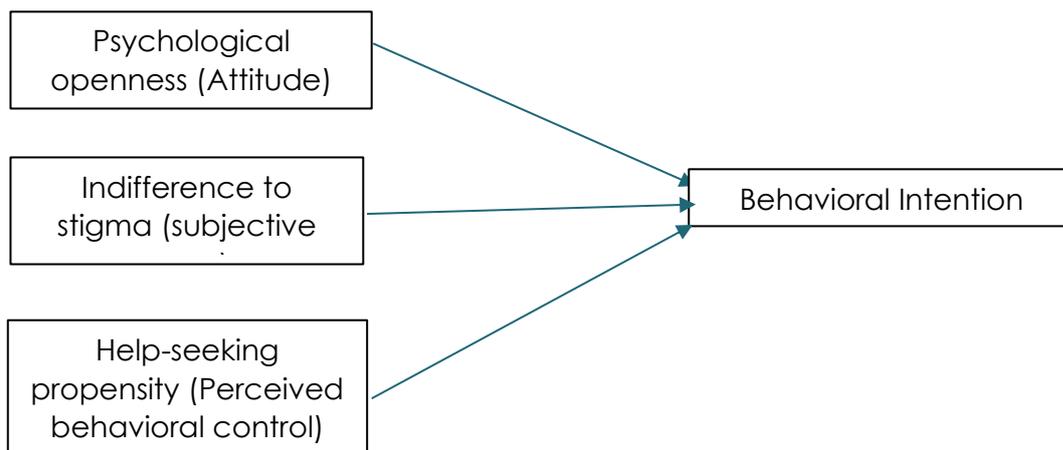
Among the literature reviews on Vietnamese individuals' mental health, there is little information about mental health services and perceptions of treatments among college students in Vietnam. [5] By far, we have found six articles exploring mental health issues among Vietnamese students. Only half of them mainly focus on college students' mental health situations in Vietnam. The following Table 1 summarizes the information and main findings of those articles.

**TABLE 1 REVIEW OF LITERATURE ON MENTAL HEALTH IN VIETNAM STUDENTS**

YEAR	AUTHORS	MAIN VARIABLES	APPROACH	SAMPLE	KEY FINDINGS
2015	Pham, T	Study burden, academic stress and mental health	In-depth interviews and cross-sectional survey	1,609 school students from three regions in the north (Hanoi city), centre (Thua Thien–Hue province) and south (Can Tho province) of Vietnam in the survey	Compared to other factors that may cause academic stress and depression, study burden was found to be the most significant one. However, besides truancy, study burden is not related with most of the adolescent risk behaviors of students.
2015	Tran, Q. A.	Mental health indicators and Medical students	Surveys	2099 medical college students from eight state medical universities in Vietnam	Our finding suggests that medical students in Vietnam may be a group with a high prevalence of suicidal ideation. Every one out of twenty students reported both depressive symptoms and suicidal ideation.
2017	Dang, H. M., et al.	School based Mental health services efficacy	Three time-points project data	443 students in the Vietnamese cities of Hanoi and Danang	Mental health services (emotional and behavioral mental health problems) were significant for both low and high-risk status students, while social skills programs are only significant for low risk status ones.
2017	Peltzer, K., Yi, S., & Pengpid, S.	Suicidal behaviors among college students	Cross-sectional survey	4675 undergraduate university students in the Association of Southeast Asian Nations (ASEAN) countries, including Vietnam	The suicidal ideation rate among college students in Southeast Asia are much higher (11.7%) than that rate in the U.S. (8.8%). Suicide prevention should pay special attention on students with a history of adverse childhood experiences, poor academic performance and mental health problems.
2018	Kamimura , A. et al.	Mental health service and	Surveys	533 Vietnam undergraduate	Vietnamese and US college students have a different view

		College student		students and 419 U.S. undergraduate students	towards the causes and perceptions of mental health. Vietnamese students turned to have stronger stigmas towards individuals with mental illness. While US participants rate mental illness as normal illness like others, Vietnamese participants consider people with mental illness as dangerous and should be isolated.
2018	Thai, Q. C. N., & Nguyen, T. H.	Mental health literacy (MHL) of depression and undergraduate students	Cross-sectional survey	350 undergraduate students in Hanoi, Vietnam (213 public health majors; 137 sociology majors)	Symptoms of depression, appropriate help-seeking intentions, and first-aid support should be paid special attention to under the Vietnamese context.

**FIGURE 1 RESEARCH MODEL**



According to the above literature review, we could conclude that research on mental health in Vietnam, with an emphasis on students, is limited in scope and numbers. Only five recent published articles explored the mental health problems among students in the country. Only three of them focused on college students. Given the high demand for mental health services in Vietnam, current research is insufficient to provide guidance in handling mental problems in Vietnamese colleges.

Many scholars are motivated to discover the possible reasons and circumstances which influence people's decision in seeking mental health services. Extrinsic and

intrinsic factors can affect their behavioral intent. For example, help-seeking attitudes, diverse cultural, social, environmental, and economic conditions, as well as beliefs, language, religion, and other cultural aspects of people in both developing and developed countries. [29, 30]

Our literature review did not reveal a comprehensive article exploring the reasons and factors that influence Vietnamese college students' professional mental health help-seeking behavior. Most of the extant literature refers to psychological openness, help-seeking propensity, and

indifference to stigma as the main factors affecting people's intention of seeking mental health treatments.

The Theory of Reasoned Action (TRA) analyzes individuals' beliefs, attitudes, intentions, and behaviors, the relationships between those constructs, and how an individual may be influenced by beliefs and attitudes. [31] The Theory of Planned Behavior (TPB) is an extension of the TRA, where a dimension of Behavioral Control was added. [32-35] In the context of the TPB, the intention to seek professional mental help is affected by an attitude, i.e., psychological openness, a subjective norm, i.e., indifference to stigma, and perceived control, i.e., help-seeking propensity.

## RESEARCH METHODOLOGY

### SAMPLE

A snowball sample was used to collect information. Students from two randomly selected business courses from a major university in Ho Chi Minh City, Vietnam, were the

seeds of the snowball sampling process. With the help of the course faculty, a printed survey was distributed among students of those classes. Respondents were informed beforehand that the research's goal was to understand the students' attitudes and intentions toward seeking professional mental health services. Furthermore, they were advised in advance that the purpose of the study was strictly academic and that the results of the study would not be used for any other purposes.

Participation in the survey was voluntary. Students received extra credit for filling the survey. They did not receive any financial incentive for their contribution.

112 responses were collected within two weeks. From those, four questioners were found incomplete. 108 responses were used for analysis. Table 2 shows the sample characteristics.

TABLE2 SAMPLE CHARACTERISTICS

ITEM	FREQUENCY	PERCENTAGE
Gender:		
Male	38	35.2%
Female	70	64.8%
Age:		
18-25	33	30.6%
26-45	56	51.9%
45+	19	17.6%
Occupation		
Employee	34	31.5%
Manager	17	15.8%
Business & other	57	52.7%
Religion		
Buddhism	39	36.3%
Catholicism	20	18.3%
Others	49	45.4%

## MEASUREMENTS

The measurements of the following constructs were developed from the literature: psychological openness, help-seeking propensity, indifference to stigma, and behavioral intention toward seeking professional mental health services. We also included four demographic traits: age, gender, education, and religion.

### PSYCHOLOGICAL OPENNESS, HELP-SEEKING PROPENSITY, AND INDIFFERENCE TO STIGMA

Following Mackenzie, Knox [36] Inventory of Attitudes toward Seeking Mental Health Services (IASMHS), 24 items, and three internally consistent factors, i.e., Psychological Openness, Help-seeking propensity, and Indifference to stigma, were employed in this study.

Combining the notions of TPB and IASMHS, we identify the measurements in this study which include Psychological openness (IASMHS) equals to Attitude (TPB), Help-seeking propensity (IASMHS) equals to Perceived behavioral control (TPB), Indifference to stigma (IASMHS) equals to subjective norms (TPB). The ASMHS within the TPB framework was already used in extant research. [37-40] A 5-point Likert scale measured the three variables with 1 – strongly disagree and 5 – strongly agree.

### INTENTION TO SEEK PROFESSIONAL MENTAL HEALTHCARE

Following Baker and Churchill Jr [41] and Pham, Vasquez [42], two questions were modified from the original questionnaires on purchase to investigate participants' intentions toward seeking professional mental care. This intention variable is measured by the 5-point Likert scale with 1 –very unlikely and 5 – very likely.

## EMPIRICAL RESULTS

### DATA ANALYSES

We conducted exploratory factor analysis with principal component analysis and varimax rotation technique.

Altogether four factors are derived from the analysis (see table 3), as expected. Eigenvalue of each factor was maintained greater than one, and the total cumulative percentage of variation was kept at more than 60 percent. The items each factor load into the predetermined factors, as expected.

### RELIABILITY CHECK

Cronbach alpha measured the reliability of each of the multi-item constructs. Cronbach alpha value maintained a value higher than .70, as Hair, Money [43] suggests. Statistical analysis indicated that Cronbach alpha value is more than .70 in the three constructs (See Table 4). Hence, the items of each construct are internally consistent. [44]

### VALIDITY TEST

Convergent validity and discriminant validity were both considered for the analysis. Both of them were assessed through a correlation matrix. [45] The high correlation among the construct items indicates that convergent validity was achieved. [43] Correlation results show that the scales of one variable to another is lower than each scale's squared root of the average variance extracted (AVE) in Tables 4. The findings confirmed the discriminant validity of the variables.

### RESULTS

Multiple regression was used to test the effect of three factors as independent variables on the dependent variable. The full model is statistically significant ( $p < .10$ ), as F-statistic shows. Results indicated that the three independent variables explained 6.8% of the variation of the dependent variable. Regression coefficient shows that only one independent variable, Help-Seeking Propensity, is statistically significant ( $\beta = .290$ ;  $p < .01$ ). The other two variables, indifference to stigma and psychological openness, are not statistically significant ( $\beta = .024$ ;  $p > .1$  and  $\beta = .089$ ;  $p > .1$  respectively). Overall, results indicate that the model explains students' help-seeking intention reasonably well. The regression results are shown in Table 5.

**TABLE 3: FACTOR ANALYSIS OF VARIABLES WITH VARIMAX ROTATION (EXTRACTION METHOD: PRINCIPAL COMPONENT ANALYSIS)**

VARIABLES	INDIFFERENCE OF STIGMA	HELP-SEEKING	ATTITUDE	INTENTION
Cronbach alpha (a)	(.88)	(.86)	(.76)	(.87)
Stigma 1	.705			
Stigma 2	.721			
Stigma 3	.626			
Stigma 4	.765			
Stigma 5	.832			
Stigma 6	.815			
Help-Seeking 1		.790		
Help-Seeking 2		.816		
Help-Seeking 3		.836		
Psy_Openness 1			.541	
Psy_Openness 2			.862	
Psy_Openness 3			.718	
Intention 1				.862
Intention 2				.888
	Eigenvalue	% of Variation	Cumulative %	
Factor 1	3.601	25.73	25.73	
Factor 2	2.370	16.93	42.65	
Factor 3	1.684	12.03	54.68	
Factor 4	1.301	9.29	63.97	

**TABLE 4 CORRELATIONS AND AVERAGE VARIANCE EXTRACTED (AVE)**

VARIABLES	INDIFFERENCE OF STIGMA	HELP-SEEKING	PSYCHOOPENNE SS	INTENTION
Stigma (6)	.72			
Help-Seeking (3)	.056	.81		
PsychoOpenness(3)	.178	.026	.74	
Intention (2)	.115	.263**	.069	.79

Notes: Figures in italics (diagonal) are squared root of average variance extracted (AVE); figures in parentheses include the number of items measuring each construct;  $p < 0.01$ .

**TABLE 5 MULTIPLE REGRESSION RESULTS WITH THE DEPENDENT VARIABLE INTENTION**

VARIABLES	UNSTANDARDIZED COEFFICIENTS	STANDARD ERROR	STANDARDIZED COEFFICIENTS	T-VALUE	SIGNIFICANCE (P<.05)
<u>Vietnam</u>					
Constant	2.401	.484		4.957	.000
Stigma	.021	.089	.024	.238	.813
Help-Seeking	.313	.103	.290	3.032	.003
Psy_Openness	.097	.108	.089	.900	.370
Notes: $F_{3,108}=3.48$ ; $P\leq .10$ ; Adj. $R^2 = .068$					

## DISCUSSION

Little is known about the mental health services and factors affecting college students' perceptions of mental disorders treatments in Vietnam. [5] They comprise a segment of the population that has a high risk of mental health issues. This study tested a model of college student's mental health seeking behavior. Regression results indicated that the model explains very well the behavioral intention to obtain professional mental health and should take these three key variables seriously: psychological openness, help-seeking propensity, and indifference to stigma. Hence, these three variables need to be treated as a strategic variable so that administrators in school make their strategic decisions about professional mental health care properly.

Statistical results show that the "help-seeking propensity" construct is the most significant one between the three. This help-seeking dimension includes seeking professional help when having a mental breakdown, worried or upset for a long time, taking psychotherapy if the need arises, and recommending friends for professional psychological help (see appendix). Remarkably, recommending friends to seek professional help can be arguably considered a help-seeking item since a student can share his/her mental health problem with his/her friends and seek help. Likewise, seeking professional psychological help when having a mental breakdown, worried or upset, and resorting to psychotherapy while having psychological problems indicates its resonance to explain help-seeking behavior. Hammer and Vogel [46] and Hammer, Parent [37] support the above findings.

Indifference to stigma was found to be the next most important variable and had a positive relationship in students' mental help-seeking behavior in Vietnam. This variable encompasses shame to be mentally ill, feeling embarrassed if friends see him/her to go to psychologists, friends will avoid it if they find that she/he has psychological problems, may feel uneasy to seek help for the fear of his/her friends, not liking to let friends know about psychological problems. We found the relationship between indifference to stigma and attitude toward seeking professional help statistically insignificant. Though this variable was significant in other studies in different cultural contexts [47], our study did not support this construct effect. Our study did not show a significant effect of the construct Psychological Openness either.

## THEORETICAL IMPLICATIONS

This research analyzes the predictors of obtaining mental health help behavior. This study improves the academic literature in different ways. First, this study provides new insight regarding the students' mental health help-seeking behavior. In other words, using the mental health help-seeking behavior, the findings of the study contribute to the theory of planned behavior by offering three similar but new constructs. Second, the results also confirm the model of the Theory of Planned Behavior and increase the explanatory power of the Theory of Planned Behavior. Finally, the results show the predictors that help to provide the propensity to obtain professional mental help.

## PRACTICAL IMPLICATIONS

The findings of the study provide significant implications for mental health professionals. Firstly, the study provides a pragmatic managerial framework that helps to assess the students' mental help-seeking behavior. Administrators in schools can provide due consideration to the students' preparedness to seek and use professional psychological help. They can identify the reasons for the reluctance to obtain professional help and try to overcome those problems since some students may have negative perceptions about psychological problems. Giving due consideration to use professional psychological help may prompt students to adopt professional mental help. Additionally, educators may teach students to break the social stigma by discussing with them that taking mental health help is not a problem; rather, it is the right path when necessary.

Looking into how to attract students to obtain professional mental health care, help-seeking propensity directly and positively affects students' adoption of professional mental help. When students understand that seeking psychological help improves their psychological well-being, they might be more likely to use it. This is of particular importance considering the psychological effects of social distancing and other life disruptions during the COVID-19 pandemic. [48, 49]

## LIMITATIONS AND FUTURE RESEARCH OPPORTUNITIES

While many studies use the ASMHS within the TPB framework, our study did not find a significant effect on two of the primary constructs. In regard to the Indifference to Stigma, one can assume that students in Vietnam have already become accustomed to stigma so much that they do not think this concept is critical any longer. That will require further research.

Next, Psychological Openness was also found statistically insignificant. We assume that students take psychological openness for granted. Future studies may require resolving this contention. Moreover, our results show that psychological openness positively correlated with students' intention to take mental help. The finding of the study contradicted David, [50] which finds that negative associations with mental health seeking behavior among Filipino Americans. Probably, psychological openness is a

culture-specific variable and might change in different cultural contexts, a fact that could not be tested here. Furthermore, the data in this study was collected before the COVID-19 pandemic; Thus, it would be interesting to conduct a similar study on the similar population in the COVID-19 period and then comparing the results.

This study also tries to discover the impact of students' mental help seeking propensity on students' intention to seek professional health. Results indicated that some of these variables might culture-specific. Therefore, conducting similar studies in different cultural contexts may add new insights. Another potential limitation of this study is the model's possible limited explanatory power. Hence, we encourage future researchers to add more variables. Third, future researchers may run non-linear regression and examine the potential interactions among the independent and dependent variables. Perhaps non-linear regression may capture more variances in the dependent variable. Finally, yet importantly, our sample size is limited; hence, we encourage future researchers to collect a larger sample while conducting a study of this nature.

## References

1. Hughes A. Poor, homeless, and underserved populations. *Legal and Ethical Aspects of Care*. 2016; 8:5.
2. O'Loughlin K, Donovan EK, Radcliff Z, Ryan M, Rybarczyk B. Using integrated behavioral healthcare to address behavioral health disparities in underserved populations. *Translational Issues in Psychological Science*. 2019;5(4):374.
3. Shah GH, Luo H, Winterbauer N, Madamala K. Addressing psychological, mental health and other behavioural healthcare needs of the underserved populations in the United States: the role of local health departments. *Perspectives in public health*. 2016;136(2):86-92.
4. Vuong DA, Van Ginneken E, Morris J, Ha ST, Busse R. Mental health in Vietnam: burden of disease and availability of services. *Asian J Psychiatr*. 2011;4(1):65-70.
5. Kamimura A, Trinh HN, Johansen M, Hurley J, Pye M, Sin K, et al. Perceptions of mental health and mental health services among college students in Vietnam and the United States. *Asian J Psychiatr*. 2018;37:15-9.

6. Auerbach RP, Alonso J, Axinn WG, Cuijpers P, Ebert DD, Green JG, et al. Mental disorders among college students in the World Health Organization world mental health surveys. *Psychol Med*. 2016;46(14):2955-70.
7. Hunt J, Eisenberg D. Mental health problems and help-seeking behavior among college students. *J Adolesc Health*. 2010;46(1):3-10.
8. Eisenberg D, Gollust SE, Golberstein E, Hefner JL. Prevalence and correlates of depression, anxiety, and suicidality among university students. *Am J Orthopsychiatry*. 2007;77(4):534-42.
9. Pedrelli P, Nyer M, Yeung A, Zulauf C, Wilens T. College students: mental health problems and treatment considerations. *Acad Psychiatry*. 2015;39(5):503-11.
10. Ibrahim AK, Kelly SJ, Adams CE, Glazebrook C. A systematic review of studies of depression prevalence in university students. *J Psychiatr Res*. 2013;47(3):391-400.
11. Breslau J, Lane M, Sampson N, Kessler RC. Mental disorders and subsequent educational attainment in a US national sample. *J Psychiatr Res*. 2008;42(9):708-16.
12. Sahu P. Closure of universities due to coronavirus disease 2019 (COVID-19): Impact on education and mental health of students and academic staff. *Cureus*. 2020;12(4).
13. Venkatesh A, Edirappuli S. Social distancing in COVID-19: what are the mental health implications? *BMJ*. 2020;369.
14. Wang C, Pan R, Wan X, Tan Y, Xu L, Ho CS, et al. Immediate psychological responses and associated factors during the initial stage of the 2019 coronavirus disease (COVID-19) epidemic among the general population in China. *International journal of environmental research and public health*. 2020;17(5):1729.
15. Zhai Y, Du X. Mental health care for international Chinese students affected by the COVID-19 outbreak. *The Lancet Psychiatry*. 2020;7(4):e22.
16. Wang PS, Lane M, Olfson M, Pincus HA, Wells KB, Kessler RC. Twelve-month use of mental health services in the United States: results from the National Comorbidity Survey Replication. *Arch Gen Psychiatry*. 2005;62(6):629-40.
17. Lauber C, Rössler W. Stigma towards people with mental illness in developing countries in Asia. *Int Rev Psychiatry*. 2007;19(2):157-78.
18. Eisenberg D, Downs MF, Golberstein E, Zivin K. Stigma and help seeking for mental health among college students. *Med Care Res Rev*. 2009;66(5):522-41.
19. United States Department of Health and Human Services. *Mental health: A report of the surgeon general*: Rockville, MD: US Department of Health and Human Services, Department of Health and Human Services, Substance Abuse Mental Health Services Administration, Center for Mental Health Services, National Institutes of Health, National Institute of Mental Health.; 1999.
20. Van der Ham L, Wright P, Van TV, Doan VD, Broerse JE. Perceptions of mental health and help-seeking behavior in an urban community in Vietnam: an explorative study. *Community Ment Health J*. 2011;47(5):574-82.
21. Giang KB, Allebeck P, Kullgren G, Van Tuan N. The Vietnamese version of the Self Reporting Questionnaire 20 (SRQ-20) in detecting mental disorders in rural Vietnam: a validation study. *Int J Soc Psychiatry*. 2006;52(2):175-84.
22. Niemi M, Thanh HT, Tuan T, Falkenberg T. Mental health priorities in Vietnam: a mixed-methods analysis. *BMC Health Serv Res*. 2010;10(1):257.
23. Do M, Pham NNK, Wallick S, Nastasi BK. Perceptions of mental illness and related stigma among Vietnamese populations: Findings from a mixed method study. *Journal of immigrant and minority health*. 2014;16(6):1294-8.
24. Ta Park V, Nguyen K, Tran Y, Yeo G, Tiet Q, Suen J, et al. Perspectives and insights from Vietnamese American mental health professionals on how to culturally tailor a Vietnamese dementia caregiving program. *Clin Gerontol*. 2018;41(3):184-99.
25. Clement S, Schauman O, Graham T, Maggioni F, Evans-Lacko S, Bezborodovs N, et al. What is the impact of mental health-related stigma on help-seeking? A systematic review of quantitative and qualitative studies. *Psychol Med*. 2015;45(1):11-27.
26. Nguyen A. Cultural and social attitudes towards mental illness in Ho Chi Minh City, Vietnam. *Stanford Univ Res J*. 2003; 2:27-31.
27. Han M, Pong H. Mental health help-seeking behaviors among Asian American community college students: The effect of stigma, cultural barriers, and acculturation. *Journal of College Student Development*. 2015;56(1):1-14.
28. Thai QCN, Nguyen TH. Mental health literacy: knowledge of depression among undergraduate

- students in Hanoi, Vietnam. *International journal of mental health systems*. 2018;12(1):19.
29. Steel Z, Marnane C, Iranpour C, Chey T, Jackson JW, Patel V, et al. The global prevalence of common mental disorders: a systematic review and meta-analysis 1980–2013. *Int J Epidemiol*. 2014;43(2):476-93.
  30. Ishikawa RZ, Cardemil EV, Falmagne RJ. Help seeking and help receiving for emotional distress among Latino men and women. *Qual Health Res*. 2010;20(11):1558-72.
  31. Fishbein M, Ajzen I. *Belief, attitude, intention, and behavior : An introduction to theory and research*: Reading, Mass. : Addison-Wesley Pub. Co., [1975]; 1975.
  32. Ajzen I. Attitudes, traits, and actions: Dispositional prediction of behavior in personality and social psychology. *Adv Exp Soc Psychol*. 1987; 20:1-63.
  33. Ajzen I. Theory of planned behavior. *Handb Theor Soc Psychol Vol One*. 2011;1(2011):438.
  34. Ajzen I. The theory of planned behavior. *Organ Behav Hum Decis Process*. 1991;50(2):179-211.
  35. Ajzen I. From intentions to actions: A theory of planned behavior. *Action control*: Springer; 1985. p. 11-39.
  36. Mackenzie CS, Knox VJ, Gekoski WL, Macaulay HL. An adaptation and extension of the attitudes toward seeking professional psychological help scale 1. *J Appl Soc Psychol*. 2004;34(11):2410-33.
  37. Hammer JH, Parent MC, Spiker DA. Mental Help Seeking Attitudes Scale (MHSAS): Development, reliability, validity, and comparison with the ATSPHF-SF and IASMHS-PO. *J Couns Psychol*. 2018;65(1):74.
  38. Yousaf O, Popat A, Hunter MS. An investigation of masculinity attitudes, gender, and attitudes toward psychological help-seeking. *Psychol Men Masc*. 2015;16(2):234.
  39. Hyland P, Boduszek D, Dhingra K, Shevlin M, Maguire R, Morley K. A test of the inventory of attitudes towards seeking mental health services. *British Journal of Guidance & Counselling*. 2015;43(4):397-412.
  40. Mesidor JK, Sly KF. Mental health help-seeking intentions among international and African American college students: An application of the theory of planned behavior. *Journal of International Students*. 2014;4(2):137-49.
  41. Baker MJ, Churchill Jr GA. The impact of physically attractive models on advertising evaluations. *J Marketing Res*. 1977;14(4):538-55.
  42. Pham N, Vasquez A, Felix R. Attitudes and preferences for sex-appealing products by Vietnamese women in their ovulation cycle. *Theoretical Economics Letters*. 2017;7(7):1986-2007.
  43. Hair JF, Money AH, Samouel P, Page M. *Research methods for business. Education+ Training*. 2007.
  44. Nunnally JC. *Psychometric theory 3E*: Tata McGraw-Hill Education; 1994.
  45. Churchill Jr GA. A paradigm for developing better measures of marketing constructs. *J Marketing Res*. 1979;16(1):64-73.
  46. Hammer JH, Vogel DL. Assessing the utility of the willingness/prototype model in predicting help-seeking decisions. *J Couns Psychol*. 2013;60(1):83.
  47. Vogel DL, Strass HA, Heath PJ, Al-Darmaki FR, Armstrong PI, Baptista MN, et al. Stigma of seeking psychological services: Examining college students across ten countries/regions. *The Counseling Psychologist*. 2017;45(2):170-92.
  48. Phạm BN. Diễn đàn Bình tĩnh trước dịch bệnh: Ngày dài của du học sinh Việt ở New York Thanh Niên 2020 [updated 2020-04-18. Available from: <https://thanhnien.vn/doi-song/dien-dan-binh-tinh-truoc-dich-benh-ngay-dai-cua-du-hoc-sinh-viet-o-new-york-1212285.html>.
  49. Phạm BN. Du học sinh Việt giữa tâm dịch Covid-19 ở New York: Thay đổi 'giấc mơ Mỹ' Thanh Niên 2020 [updated 2020-04-21. Available from: <https://thanhnien.vn/doi-song/du-hoc-sinh-viet-giua-tam-dich-covid-19-o-new-york-thay-doi-giac-mo-my-1213561.html>.
  50. David E. Cultural mistrust and mental health help-seeking attitudes among Filipino Americans. *Asian Am J Psychol*. 2010;1(1):57.

**Appendix A: Final version of the survey used in this study**

**I. Factor 1: Psychological openness (Attitude) (1 strongly disagree to 5 strongly agree)**

Note: *professional refers to doctors, nurses, counselors, or any healthcare staff.*

1. Psychological problems, like many things, tend to work out by themselves.....1 2 3 4 5
2. People with strong characters can get over psychological problems by themselves with little need for professional help.....1 2 3 4 5
3. People should work out their own problems; getting professional help should be a last resort. ....1 2 3 4 5
4. Keeping yourself busy is a good solution to stay away from personal worries.....1 2 3 4 5

**II. Factor 2: Help-seeking propensity (Perceived behavioral control) (1 strongly disagree to 5 strongly agree)**

1. If I believe I was having a mental breakdown, I would seek professional help.....1 2 3 4 5
2. I would get professional help if I were worried or upset for a long period of time.1 2 3 4 5
3. If I were experiencing a serious psychological problem at this point in my life, I believe psychotherapy could work for me.....1 2 3 4 5
4. If my close friends seek my advice about a psychological problem, I might recommend that they see a professional.....1 2 3 4 5

**III. Factor 3: Indifference to stigma (=subjective norms) (1 strongly disagree to 5 strongly agree)**

1. It is a shame to be mentally ill.....1 2 3 4 5
2. I would be embarrassed if being seen at the office of a psychiatrist going into the office of a professional who deals with psychological problems. ....1 2 3 4 5
3. Important people in my life would keep away from me if they were to find out my psychological problems. ....1 2 3 4 5
4. Being diagnosed with a mental disorder is a blot in a person’s life.....1 2 3 4 5
5. I would feel reluctant to seek help from a psychiatrist for fear my friends or partners might know about it.....1 2 3 4 5
6. I would feel uneasy to seek help from a psychiatrist for fear of what people might think about me .....1 2 3 4 5
7. I would not like my closest people to know about my psychological problems.....1 2 3 4 5
8. Even if my psychological problems had been treated I do not feel I could have “covered it up.”.....1 2 3 4 5

**IV. Intentions 1 (very unlikely) to 5 (very likely)**

1. If you were to experience serious psychological problems would you consider talking to a family physician? .....1 2 3 4 5
2. How likely is it that you would consider talking to a mental health professional (e.g., psychiatrist, psychologist, social worker)? .....1 2 3 4 5

**V. Demographic**

1. Age
  2. Gender
    - Male
    - Female
  3. Occupation
  4. Education
    - High-school graduate or lower
    - College student/graduate
    - Post-graduation degree
  5. Religion
    - Buddhism
    - Catholicism
    - Christianity
    - Others (which one?).....
  6. How religious are you? (1 not at all and 5 very much).....1 2 3 4 5
- \*Have you ever employed any professional help for mental issues (i.e. stress, depression)?
- Yes
  - No
- \*Which country are you from? .....