

5-2023

EXAMING THE KNOWLEDGE, PERCEPTION, AND UTILIZATION OF MENTAL HEALTH SERVICES AMONG COLLEGE STUDENTS

Giselle Rojas
California State University - San Bernardino

Follow this and additional works at: <https://scholarworks.lib.csusb.edu/etd>



Part of the [Public Health Commons](#)

Recommended Citation

Rojas, Giselle, "EXAMING THE KNOWLEDGE, PERCEPTION, AND UTILIZATION OF MENTAL HEALTH SERVICES AMONG COLLEGE STUDENTS" (2023). *Electronic Theses, Projects, and Dissertations*. 1687. <https://scholarworks.lib.csusb.edu/etd/1687>

This Thesis is brought to you for free and open access by the Office of Graduate Studies at CSUSB ScholarWorks. It has been accepted for inclusion in Electronic Theses, Projects, and Dissertations by an authorized administrator of CSUSB ScholarWorks. For more information, please contact scholarworks@csusb.edu.

EXAMINING THE KNOWLEDGE, PERCEPTION, AND UTILIZATION OF
MENTAL HEALTH SERVICES AMONG COLLEGE STUDENTS

A Thesis
Presented to the
Faculty of
California State University,
San Bernardino

In Partial Fulfillment
of the Requirements for the Degree
Master of Science
in
Public Health

by
Giselle Rojas
May 2023

EXAMING THE KNOWLEDGE, PERCEPTION, AND UTILIZATION OF MENTAL
HEALTH SERVICES AMONG COLLEGE STUDENTS

A Thesis
Presented to the
Faculty of
California State University,
San Bernardino

by
Giselle Rojas

May 2023

Approved by:

Salome Kapella Mshigeni, PhD, Committee Chair, Health Science and Human
Ecology

Neal Malik, Dr.PH, Committee Member, Health Science and Human Ecology

Regina G. Moore Ude, Dr.PH, Committee Member, Health Science and Human
Ecology

© 2023 Giselle Rojas

ABSTRACT

Background: Mental health illness is an urgent public health crisis impacting an estimated 1 in 3 adults aged 18-25 in the United States (NAMI, 2022). College students have seen a more than 50% increase in mental health problems since 2013 (Lipson et al., 2022). Growing rates of mental health illnesses create a greater need for mental health services. However, a National College Health Assessment conducted in 2021 found that only about 41% of college students were identified as having sought mental health services through their college campus (ACHA, 2022).

Methods: This study utilized quantitative data to examine the knowledge, attitudes, and practices of college students towards campus provided mental health services. An online Google Forms survey was distributed through a campus-wide email at a southern California college campus. The study results were analyzed using descriptive statistics in SPSS and Excel.

Results: A total of 320 responses were collected. Out of the 320 responses, 1 declined to participate in the study. Out of 319 responses analyzed, more than half (78%) were knowledgeable of the mental health services provided on campus. However, all demographic groups faced low utilization rates of campus provided mental health services. Black or African American college students had the lowest overall utilization rates of campus mental health services whereby 83.3% of respondents stated they had never utilized any campus mental health service. Gender differences in attitudes towards mental health services were

found as data identified Men as the least willing to seek out mental health services and Females had the highest rates of positive attitudes towards mental health services as measured by agreeing with the statement “*attending a campus mental health workshop would benefit my mental health*”.

Conclusion: The purpose of this study was to identify the current Knowledge, Attitude, and Practices of college students towards campus provided mental health services. College students demonstrated being knowledgeable of campus mental health services, however more than 50% of all demographic groups of college students stated they had never utilized any campus mental health service. These results demonstrate a need for college campuses to address and identify barriers preventing the utilization of mental health services.

ACKNOWLEDGEMENTS

I would like to thank my amazing thesis chair, Dr. Salome Mshigeni, for her guidance and dedication to my success since the beginning of my thesis journey. Also, thank you to my thesis committee members Dr. Neal Malik and Dr. Regina Moore-Ude for their time, support, and recommendations. A special thank you to my family, who are my biggest supporters and the motivation for all that I do.

TABLE OF CONTENTS

ABSTRACT	iii
ACKNOWLEDGEMENTS.....	v
LIST OF TABLES	vii
CHAPTER ONE: INTRODUCTION	1
Problem Statement	1
Purpose of Study	4
Research Questions.....	5
Significance to Public Health	5
CHAPTER TWO: LITERATURE REVIEW.....	7
Introduction	7
Knowledge	8
Attitude.....	10
Practice	12
CHAPTER THREE: METHODS	15
Study Design	15
Data Source and Collection	15
Measures.....	16
Data Analysis.....	16
Ethics.....	17
CHAPTER FOUR: RESULTS.....	18
Demographics.....	19
Research Question 1	21

Research Question 2	23
Research Question 3	25
CHAPTER FIVE: DISCUSSION	27
Research Question 1 (Knowledge)	27
Research Question 2 (Attitude).....	28
Research Question 3 (Practice).....	29
Strengths and Limitations	31
Recommendations for Future Research and Practice	32
Conclusion	34
APPENDIX A: INSTITUTIONAL REVIEW BOARD APPROVAL FORM.....	36
APPENDIX B: SURVEY QUESTIONS	39
APPENDIX C: INFORMED CONSENT STATEMENT AND FLYER.....	43
REFERENCES	45

LIST OF TABLES

Table 1. Demographic Characteristics of the Respondents.....	19
Table 2. Research Question 1: Knowledge	20
Table 3. Research Question 2: Attitude	22
Table 4. Research Question 3: Practice	24

CHAPTER ONE

INTRODUCTION

Problem Statement

Mental health is defined as a person's emotional, psychological, and social well-being (Centers for Disease Control and Prevention [CDC], 2021). The World Health Organization (WHO) has listed mental health as an integral part of a person's well-being, thus identifying the prevalence of mental health illnesses among the public as a growing Public Health issue (WHO, 2022). Research shows that 1 in 5 adults in the United States (U.S.) suffer from a mental health condition each year (National Alliance on Mental Illness [NAMI], 2022). In 2021, about 23% of U.S. adults were identified as being impacted by a mental health condition. This is a significant increase from 2015 data where only 18% of all adults in the United States (U.S.) were found to be suffering from a mental health condition (Center for Behavioral Health Statistics and Quality, 2016). Globally, the WHO estimates that since 2020, there has been a 26% increase in anxiety and a 28% increase in depressive disorders (WHO, 2022). The prevalence of anxiety and depressive mental disorders were the most common in 2019 (WHO, 2022). Many common physical illnesses are associated with the most prominent global mental health issues. For example, mental health illnesses, such as depression, have been shown to increase the risk of chronic diseases (CDC, 2021). Specifically, being diagnosed with depression places a person at a 40% higher risk of cardiovascular disease than a person without depression (CDC,

2021). The important role that mental health plays in one's overall health creates an urgency for Public Health to address the growing epidemic of mental health within various populations.

Furthermore, those that suffer from a mental illness are not only at greater risk for chronic diseases as previously stated, but also at greater risk for other negative health issues such as: suicide, substance use, or unemployment (NAMI, 2022). The growing concern surrounding mental health in the U.S. is amplified as suicide has become the second leading cause of death among individuals who are 10-to-34-years old (NAMI, 2022). These research findings clearly demonstrate the strong impact mental health has on the population of young adults in the U.S.

According to the National Institute of Mental Health (NIMH), 1 in 3 U.S. adults ages 18-25 experience a mental illness every year (NIMH, 2022). Further, among the subpopulation of 18- to 24-year-olds in the U.S, at least 41% of them attend a college or university (Sontag-Padilla et al, 2016). A recent survey conducted by the American College Health Association (ACHA) found that more than 50% of college students surveyed suffered from moderate mental distress (ACHA, 2021). Yet, many college students suffering from mental health issues never received any form of treatment and are unwilling to seek out treatment (Ebert et al., 2018). Unfortunately, if left untreated, college students facing mental health issues may experience poorer academic performance which may lead to higher dropout rates, increased substance use, and persistent mental health

problems (Sontag-Padilla et al, 2016). For instance, research shows that among college students suffering from a mental health issue, 32% are also impacted by some form of substance use (NAMI, 2022). Among college students experiencing mental health issues, 87% were also experiencing challenges in their academic performance (ACHA, 2022). Therefore, college students are identified as an important population that demonstrates a need for mental health services (Sontag-Padilla et al, 2016).

According to the American Psychological Association (APA), mental health services are defined as interventions, i.e., assessment, diagnosis, treatment, or counseling, for any mental disorder or for the enhancement of an individual's mental health (APA, 2022). A study conducted by Rosenthal and Wilson (2008) surveyed 1,773 first year college students and found that of those surveyed, 90% of them reported never utilizing on-campus counseling services. Although most of the study population reported never utilizing counseling services, 74% of the participants also reported experiencing moderate psychological distress (Rosenthal & Wilson, 2008). This study supports the strong need that college students have for mental health services through their self-reported level of psychological distress and highlights the urgency to examine why college students who need these services are not utilizing them.

Colleges play an important role in providing mental health services for their students as many young adults are actively pursuing higher education at some point in their early life journey. The WHO recommends that national

strategies aimed at strengthening the mental health of a population should include the provision of services (i.e., counseling) in non-health care settings, and college campuses are among those venues (WHO, 2022). This recommended strategy, along with efforts to integrate mental health services in primary health care settings, support the public health initiative towards providing mental health services to populations identified to be in greater demand for them (i.e., college students). If well-advertised and consequently utilized, mental health services provided to college students in need would work to reduce the negative health effects that stem from untreated mental health issues. Therefore, it is important that colleges/universities campuses develop an infrastructure that effectively communicates and encourages the use of mental health services among college students. Further, barriers and any associated stigma that prevent students from accessing these services ought to be identified. Strategies for improvement need to be created and effectively practiced to ensure that access and full utilization of mental health services on college campuses are achieved.

Purpose of Study

The purpose of this study is to examine Knowledge, Attitude, and Practices of mental health services among college students attending a Minority Serving Institution/Hispanic Serving Institution (MSI/HSI) in one of the biggest counties in Southern California. Gathering information on students' attitudes toward mental health services will ultimately address the lack of or poor utilization of these services among the study population. The focus on identifying key

demographic groups, such as gender and ethnicity, will allow for the examination of any disparities in mental health service utilization among diverse populations. Overall, this study aims to provide a clear understanding of how students perceive mental health services, their current knowledge, and if they have ever utilized the available services provided on their college campus.

Research Questions

1. What is the current *Knowledge* regarding mental health services offered on campus among college students?
2. Among college students, are there gender differences in *Attitudes* towards mental health services provided on campus?
3. Among college students, are there racial/ethnic differences in the *Utilization* of mental health services on campus?

Significance to Public Health

Addressing challenges towards the utilization of on-campus mental health services among college students is vital as the negative health consequences presented in the literature should not be ignored. Ensuring that college campuses can provide a fair opportunity for every student to achieve their best level of mental health is essential to achieving one of the WHO goals to implement strategies for early prevention and promotion of mental health among youth (WHO, 2022). Further, this study supports the current Healthy People 2030 (HP 2030) objective to “Increase the proportion of adults with serious mental health issues who get treatment”, as many young adults in college campuses will end

up graduating and become a part of the bigger society that they live in (Office of Disease Prevention and Health Promotion, 2020, Obj. MHMD-07). Consequently, if access to mental health services is not expanded and effectively communicated, the public will continue to be impacted by negative health outcomes such as suicide, the 12th leading cause of death in the United States (NAMI, 2022). Also, the negative impact of untreated mental illness includes higher rates of disability, unemployment, incarceration, homelessness, and poor quality of life (NAMI, 2022). Research also shows that during the COVID-19 pandemic, 44% of college students surveyed reported experiencing an increase of depressive thoughts (Son et al., 2020). Among the study participants, 8% reported suicidal thoughts and 23% reported negative coping strategies such as drinking, smoking, or sleeping longer to stay distracted during that period of time (Son et al., 2020). Hence, this study emphasizes the pivotal role college campuses play in supporting the increased mental health needs of its students.

Further, this study will incorporate three main Master of Public Health (MPH) competencies namely: (a) interpreting results of data analysis for public health research, (b) explaining behavioral and psychological factors that affect a populations health, and (c) assessing population needs, assets and capacities that affect communities' health.

CHAPTER TWO

LITERATURE REVIEW

Introduction

Mental health is an important public health crisis that has increased in prevalence worldwide over the past decade. As of 2019, the WHO found that nearly a billion people worldwide were living with a mental health disorder (WHO, 2022). Recent public health laws strengthen the state's belief in the need to provide the public access to mental health services. For example, in 2021, the State of California passed Senate Bill 221 (SB 221) that requires health care providers to follow up with their patients on mental health or substance use disorders within 10 business days to ensure that patients in need receive timely treatment for mental health issues (NUHW, 2022). These laws support the severity of the rising need for mental health services in all stages of life. In fact, college students are being impacted by the prevalent mental health crisis. For instance, since 2013, there has been a 50% increase in mental health problems among college students (Lipson et al., 2022). Data collected from a study conducted in the 2020-2021 school year found that more than 60% of students were identified as having one or more mental health problems (Lipson et al., 2022). The rising trend of mental health problems among college students clearly demonstrates the need to provide mental health services on college campuses. Further, the California State legislature noted that all University of California campuses (UCs), all California State University campuses (CSUs), and most

community college campuses provide students with mental health services (Qing et al., 2021). However, as of 2021, nationwide data collected found that only 41% of college students who sought out mental health services did so through an on-campus health or psychological center (ACHA, 2021). This study will assess the Knowledge, Attitude, and Practices of college students towards on campus mental health services.

Knowledge

Addressing college students' current knowledge of mental health and its associated services is key towards bridging the gap to increase awareness of available campus resources. Research demonstrates that students who are more knowledgeable of mental health symptoms are more likely to provide peer support and recommend campus mental health services to their fellow classmates (Kalkbrenner & Hernandez, 2017). For example, a study conducted by Alqassim et al. (2022) surveyed community college participants in Saudi Arabia on their knowledge of mental health symptoms. The study found that students who had high levels of awareness of mental health signs and symptoms were significantly more likely to refer a friend in need to those resources (Alqassim et al., 2022). This is an important factor as most college students become aware of mental health services when they need them due to recommendations from their peers (Yorgasen et al., 2008).

Furthermore, Yorgasen et al. (2008) found the leading providers of information regarding campus mental health services came from students'

friends or classmates, followed by campus web sites, orientation, and faculty. This study also found that factors such as living on campus and longer time spent at the university led to an increase of knowledge of mental health services (Yorgasen et al., 2008). Students with higher knowledge of services were more likely to utilize those resources (Yorgasen et al., 2008). Therefore, it is imperative that students that do not live on campus or spend much time on campus are also aware of the health-related resources available to them.

Unfortunately, studies continue to demonstrate that college students were not aware that their campuses provided mental health services. Yorgasen et al. (2008) measured students' knowledge of mental health services by asking participants if they ever heard of the available resources on campus. Of those surveyed, 30% of the students noted that they had never heard of the campus mental health services (Yorgasen et al., 2008). A separate study identified first year college students as being at higher risk of mental health illness and lacking awareness of mental health resources (Pace et al., 2018). Among 292 undergraduate students, one third were identified as not being aware of their campus' mental health services (Pace et al., 2018). Further research demonstrates that a lack of knowledge of available resources is also prevalent among International students. A study by Hyune et al. (2007) specifically looked at differences in knowledge among International students attending a U.S. based college or university compared to residential students. The researchers found that while about 25% of domestic graduate students responded to not being

aware of campus services, 39% of International students reported not being aware of campus counseling services (Hyune et al., 2007). The difference in knowledge between specific demographic groups of students amplifies the barriers college students face in accessing services that are essential to supporting their well-being.

Attitude

Regarding students' attitudes, the perceptions that college students hold towards mental health services can create barriers to utilization of campus provided mental health resources. A common negative perception of mental health, or people who access mental health services, is due to the societal stigmatization of mental illness. This common social stigma towards mental health is addressed by the WHO in their 2013-2030 action plan where they directly reference their vision for promoting mental health as being free from stigmatization (WHO, 2021). Singh et al. (2020) defines stigma as one's negative attitude towards mental health and found that college students who held a higher stigma towards mental health services were less likely to utilize them.

Further, negative perceptions towards mental health services are not uncommon among college students. A study involving Vietnamese college students' perceptions towards mental health services were compared to U.S. college students in 2018 (Kamimura et al., 2018). While U.S. college students responded that they believed mental illness was due to a chemical imbalance, a majority of Vietnamese students stated that they viewed people with mental

illness as dangerous (Kamimura et al., 2018). These types of stereotypes towards mental health can contribute to the negative perceptions of campus mental health resources and discourage use.

More importantly, there is a strong need to address the gender differences in perceptions of mental health and campus mental health services. A study by DeBate et al. (2018) specifically focused on male college students in the U.S. was conducted to analyze their help-seeking behaviors and perception towards mental health (DeBate et al., 2018). The literature presented found that there was a positive relationship between negative attitudes toward mental health treatment and motivation to seek out help for mental health problems among the males surveyed.

On the other hand, females were more likely to view mental health and mental health services positively (Al-Damarki, Thomas, & Yaaqeib, 2016). In particular, when comparing gender, personal stigma towards depression and help-seeking behaviors to mental health treatment were much lower among women (Conceicao, Rothes, & Gusmao, 2022). This study also referenced the societal norms that men face in terms of being conventionally masculine, that affects their own personal stigma towards a mental illness like depression (Conceicao, Rothes, & Gusmao, 2022). Further literature continues to support positive views towards mental health treatment among female college students. A study conducted among Emirati female college students found that out of 70 participants, only 6 reported negative attitudes towards mental health services

(Al-Damarki, Thomas, & Yaaqeib, 2016). In contrast, male college students continue to demonstrate higher self-stigma towards mental health services and negative attitudes towards mental health in general (Rafal et al., 2018). Hence, college campuses will play an important role in reducing stigma towards available mental health resources, especially among male college students. Thus, it is important to identify and address these gender differences in attitudes towards mental health services to uniformly increase willingness to access available mental health services and consequently reduce disparities in mental health care among this population.

Practice

The literature further presents the prevalence of racial/ethnic disparities regarding utilization of mental health services. Data collected from 373 college campuses from 2013-2021 was used to identify trends present in the utilization of mental health services by college students (Lipson et al., 2022). As mental health continues to worsen for this population, the gap in utilization of mental health services by racial/ethnic minorities continues to increase (Lipson et al, 2022). For example, this study found that although there was a significant increase in mental health problems, Asian, Desi American, and Pacific Islander students saw a decrease in mental health treatment from 37.2% in 2018 to 33.8% in 2021 (Lipson et al., 2022). Also, Black students saw a similar decrease in treatment where in 2018, 40.6% of Black students were accessing treatment while only 37.7% accessed treatment in 2021 (Lipson et al., 2022).

Other studies further demonstrate that college students of color are not utilizing campus mental health resources at the same rate as their White peers. Specifically, Asian, Latino, and African American students were found to be less likely to report the use of campus mental health services when compared to White students (Sontag-Padilla et al., 2016). Also, reports of access to therapy, diagnosis, and medication use for mental health problems were lower among students of color than White students (Lipson et al., 2018). A study by Lipson et al. (2018) examined the mental health practices of over 40,000 college students. While more than half of White students suffering from a mental illness surveyed stated that they received a diagnosis, only 25% of African American students received a mental health diagnosis (Lipson et al., 2018). Further studies show that Asian students were the least likely to seek out campus mental health services (Lipson et al., 2018). This disparity also greatly impacts Asian International students who are even less likely to seek services (Lipson et al., 2018). In fact, Zhou et al. (2022) found that International students from various demographic groups such as China, India, and Spain reported only 32% of those in need of mental health services compared to 50% of students who were not International students utilized mental health services. International students also face unique barriers (i.e., language and cultural differences) that perpetuate their low utilization of mental health services (Zhou et al., 2022).

Furthermore, concerns continue to grow over the low rates of mental health service use by high-risk demographic populations. Busby et al. (2021)

discusses the underutilization of mental health services by Black college students who were screened for suicide risk. In this study, 1,559 Black college students were surveyed and 17% were identified as positive risk for suicide (Busby et al., 2021). Alarming, 66% of those at risk for suicide were not receiving any mental health service. This concern is also noted in other countries such as South Africa. Bantjes et al. (2020) found that only 35% of college students who reported suicidal thoughts or behaviors utilized mental health treatment. These factors are prevalent among racial and ethnic minority groups who already face many barriers in their day to day lives as college students. These findings promote the urgent need to increase the use of mental health services by college students facing disparities in mental health utilization.

Overall, the presented literature demonstrates that many college students are unaware of the availability of their campus mental health resources. If not fully addressed, the existing lack of knowledge of these resources will continue to prolong the trend of underutilization of campus mental health services. Research supports creating initiatives towards increasing awareness of college mental health services and the need to reduce barriers to accessibility of these resources (Ebert et al., 2018). Also, the research findings demonstrate the need to reduce negative perceptions towards mental health services among males and increasing access to mental health resources for racial/ethnic minorities (Rafal et al., 2018; Lipson et al., 2022).

CHAPTER THREE

METHODS

Study Design

This study used a quantitative research method to gather information about college student's Knowledge, Attitudes, and Practice pertaining to on campus mental health services. An online survey was conducted using Google Forms through a mass email from a college campus located in southern California University. Data were then analyzed using IBM SPSS Statistics for Windows (Ver. 28) and Microsoft Excel (Version 2301) to respond to various research questions.

Data Source and Collection

After IRB approval, campus-wide data were collected through a mass email containing direct links to the Google Forms Survey. Mass email request permissions were sent to the Office of Registrar and, upon approval, the emails were sent by the Campus Information Technology Department. The first email was sent to students on November 2, 2022. Due to a low response rate, a second email was sent out on November 15, 2022, and included a flyer that invited students' participation in the survey (see appendix C). Beginning November 2, 2022, the Google Forms survey remained open for responses for a period of 8 weeks and was closed on December 31, 2022. Over this period, a total of 320 responses were collected. Informed consent was collected through a

single question “I agree to participate under the conditions described above” which was presented after a brief description of the survey, the survey’s purpose, confidentiality, duration, and contact information (see appendix C). Participants who consented responded “Yes” to indicate their willingness to participate and continued with the survey. Participants who responded “No” were automatically directed to a separate page where they could exit the Google Forms survey web page.

Measures

The survey included a total of 16 questions of which 4 were demographic in nature (See Appendix B). The remaining 12 questions focused on collecting data using the Knowledge, Attitudes, and Practices (KAP) model. Survey questions pertaining to students’ attitudes towards mental health services were compared to students’ gender to measure any differences between gender and perceptions of mental health services. The Practice component of the KAP model was measured by comparing differences between utilization of mental health services among racial/ethnic groups.

Data Analysis

Data analysis was conducted using SPSS, version 28.0. The demographic characteristics of the survey population and Research Question 1 data on Knowledge were captured using a descriptive statistics frequency distribution table. Data for Research Question 2 and 3 were assessed using a Cross-

tabulation analysis. Microsoft Excel (Version 2301) was utilized to create tables for all research questions.

Ethics

Institutional Review Board (IRB) approval was secured from the university committee IRB-FY2023-63 (see appendix A).

CHAPTER FOUR

RESULTS

A descriptive statistics analysis was conducted to gather the demographics of the participants (Table 1). Of the 320 responses, 1 student declined to participate. In total, survey data were collected from 319 (n=319) participants. Of those, 78.7% identified as Female and 18.5% identified as Male. Most of the students surveyed were between the ages of 18-25 (35.7%) and in their Fourth year of education (27.9%). The majority identified as Hispanic, or Latino (59.9%) followed by White/European American (20.4%).

Demographics

Table 1. Demographic Characteristics of the Respondents

Variable	Overall (n = 319)	
	N	%
Gender		
Female	251	79
Male	59	18
Other	9	3
Age		
18-21	114	35.7
22-25	86	27.0
26-29	29	9.1
30+	90	28.2
Race		
Asian or Pacific Islander	26	8.2
Black or African American	18	5.6
Hispanic or Latino	191	59.9
Native American	6	1.9
White or European American	65	20.4
Other	13	4
Academic standing		
First Year	28	8.8
Second Year	31	9.7
Third Year	79	24.8
Fourth Year	89	27.9
Fifth Year or more	38	11.9
Graduate student	54	16.9

Table 2. Research Question 1: Knowledge

Variable	<i>n</i>	%	Cumulative %
<i>Knowledge of Mental Health Services</i>			
Strongly Agree	104	32.6	32.6
Agree	145	45.5	78.1
Disagree	52	16.3	94.4
Strongly Disagree	18	5.6	100.0
<i>Knowledge of Campus Wellness Workshops</i>			
Strongly Agree	143	44.8	44.8
Agree	138	43.3	88.1
Disagree	24	7.5	95.6
Strongly Disagree	14	4.4	100.0
<i>Knowledge of Individual Counseling Sessions</i>			
Strongly Agree	123	38.6	38.6
Agree	105	32.9	71.5
Disagree	69	21.6	93.1
Strongly Disagree	22	6.9	100.0
<i>Knowledge of Group Counseling Sessions</i>			
Strongly Agree	114	35.7	35.7
Agree	106	33.2	69.0
Disagree	78	24.5	93.4
Strongly Disagree	21	6.6	100.0

Research Question 1

What is the current Knowledge regarding mental health services offered on campus among college students?

A descriptive statistics analysis (Table 2) of students' Knowledge of mental health services was conducted using four survey questions asking about students' awareness of overall availability of mental health services, campus wellness workshops, individual counseling sessions, and group counseling sessions. Responses were measured through a Likert scale where Strongly Agree/Agree demonstrated knowledge and Disagree/Strongly Disagree represented a lack of knowledge regarding the services referenced. Further, these responses demonstrated that more than half of the participants were aware of the campus wellness workshops (88.1%), individual counseling sessions (71.5%), and Group counseling sessions (69%). A majority of students surveyed demonstrated awareness of the mental health services (78.1%) on campus.

Table 3. Research Question 2: Attitude

Variable	Female	Male	Other
<i>College campuses should address mental health services</i>			
Strongly Agree	83.7%	71.2%	77.8%
Agree	15.9%	28.8%	22.2%
Disagree	0.4%	0.0%	0.0%
Strongly Disagree	0.0%	0.0%	0.0%
<i>I am willing to seek mental health services while on campus</i>			
Strongly Agree	45.4%	44%	66.7%
Agree	44.2%	42.4%	22.2%
Disagree	8.8%	11.9%	11.1%
Strongly Disagree	1.6%	1.7%	0.0%
<i>Attending a campus wellness workshop would benefit my mental health</i>			
Strongly Agree	45.4%	28.8%	44.5%
Agree	46.6%	49.2%	33.3%
Disagree	6.8%	11.9%	0.0%
Strongly Disagree	1.2%	10.1%	22.2%
<i>I would recommend on campus mental health services to a friend in need</i>			
Strongly Agree	62.5%	50.8%	44.5%
Agree	33.5%	40.7%	33.3%
Disagree	3.2%	6.8%	11.1%
Strongly Disagree	0.8%	1.7%	11.1%

Research Question 2

Among college students, are there gender differences in Attitudes towards mental health services?

Using a Cross-tabulation table (Table 3), responses revealed that, across all genders, almost all students (99.6% of Females, 100% of Males, and 100% of those that identified as Other) believed that college campuses should address mental health services based on their Strongly Agree/Agree responses. Of the females surveyed, 89.6% would seek mental health services while on campus, 92% believe attending a campus wellness workshop would benefit their mental health, and 96% would recommend campus mental health services to a friend in need. In comparison, 86.4% of males indicated that they were willing to seek mental health services, 78% believe that attending a campus wellness workshop would benefit their mental health, and 91.5% would recommend campus mental health services to a friend in need. Lastly, among those that identified as Other, 88.9% were willing to seek mental health services, 77.7% believe attending a campus wellness workshop would benefit their mental health, and 77.7% would recommend campus mental health services to a friend in need.

Table 4. Research Question 3: Practice

Variable	Never	Once	More than once
<i>I have sought mental health services on campus</i>			
Whites/European American	75.4%	10.8%	13.8%
Black or African American	83.3%	11.1%	5.6%
Hispanic or Latino	68.6%	17.8%	13.6%
Native American	66.6%	16.7%	16.7%
Asian or Pacific Islander	61.5%	3.9%	34.6%
Other	53.8%	15.4%	30.8%
<i>I have attended campus wellness workshops before</i>			
Whites/European American	83.1%	12.3%	4.6%
Black or African American	83.3%	5.6%	11.1%
Hispanic or Latino	71.2%	18.3%	10.5%
Native American	66.7%	0.0%	33.3%
Asian or Pacific Islander	65.4%	26.9%	7.7%
Other	69.2%	7.7%	23.1%
<i>I have attended campus individual counseling sessions before</i>			
Whites/European American	84.6%	3.1%	12.3%
Black or African American	77.8%	5.5%	16.7%
Hispanic or Latino	77.0%	7.8%	15.2%
Native American	83.3%	0.0%	16.7%
Asian or Pacific Islander	65.4%	0.0%	34.6%
Other	76.9%	7.7%	15.4%
<i>I have attended campus group counseling sessions before</i>			
Whites/European American	97%	1.5%	1.5%
Black or African American	100.0%	0.0%	0.0%
Hispanic or Latino	93.7%	4.2%	2.1%
Native American	83.3%	0.0%	16.7%
Asian or Pacific Islander	88.5%	0.0%	11.5%
Other	76.9%	23.1%	0.0%

Research Question 3

Among college students, are there racial/ethnic differences in the Utilization of mental health services on campus?

Further, a cross-tabulation table (Table 4) was completed to compare the race/ethnicity of participants with their utilization of campus mental health services. Participants were able to respond whether they have *Never*, *Once*, or *More Than Once* utilized a free campus mental health service. The survey question *I have sought mental health services on campus* was intended to quantify overall utilization of mental health services on campus.

Among White/European American participants, 75.4% indicated that they have never sought out mental health services on campus, 83.1% have never attended a wellness workshop, 84.6% have never attended individual counseling sessions, and 97% have never attended group counseling sessions. However, within the same race/ethnicity category, 24.6% of respondents have sought mental health services more than once or once, and 12.3% indicated they utilized individual counseling sessions more than once.

In comparison, Black or African American participants had the highest proportion of participants that have never sought mental health services. Of those surveyed, 83.3% indicated they have never sought campus mental health services or attended wellness workshops, 77.8% have never attended individual counseling sessions, and 100% of those surveyed indicated they have never

attended group counseling. The highest service utilized among Black or African American participants was individual counseling sessions (22.2%).

Further, among Hispanic or Latino participants, 68.6% indicated they had never sought mental health services. Specifically, 71.2% never attended wellness workshops, 77% never attended individual counseling, and 93.7% never attended group counseling. On the other hand, the highest proportion of Hispanic or Latino participants that have utilized services indicated they attended wellness workshops once or more than once (28.8%).

Moreover, among Native American participants, 66.6% never sought any mental health services, 66.7% never attended campus wellness workshops, and 83.3% never attended individual counseling sessions or group counseling sessions. The highest service utilized among Native American students were campus wellness workshops (33.3%).

Lastly, 61.5% of Asian or Pacific Islander participants stated that they have never sought any mental health services. In comparison to all other racial/ethnic groups, they had the highest percentage of students who indicated they sought mental health services more than once (34.6%). They also had the highest percentage students who attended individual counseling sessions more than once (34.6%).

CHAPTER FIVE

DISCUSSION

This study analyzed the Knowledge, Attitude, and Practices among college students at a public university in southern California. A majority of participants surveyed were Female and in their Fourth year of college. Also, most participants identified as Hispanic or Latino between 18-21 years of age. Overall demographic characteristics of the survey population mirrors that of the southern California Census region demographic data (U.S. Census Bureau, 2022).

Research Question 1 (Knowledge)

Results from research Question 1 found that most students were aware of the overall mental health services provided on campus. Hence, this particular finding contradicts with previous studies that indicate that students have a lack of knowledge of campus provided mental health services and thus do not utilize those resources (Pace et al., 2018; Hyune et al., 2007). Findings from this research also found that majority of college students were also knowledgeable of the specific services provided on campus such as wellness workshops, individual counseling, and group counseling sessions. While previous literature does not acknowledge specific services, it does support the effectiveness of peer-recommended mental health resources (Yorgasen et al., 2008). This is similar to this research whereby findings demonstrate that students are mostly aware of campus wellness workshops that are a peer interactive mental health service. While this study presents high rates of knowledge of mental health services,

previous literature emphasizes the importance of students' knowledge of mental health illnesses that leads to higher peer recommendations to campus resources and greater utilization (Kalkbrenner & Hernandez, 2017). Further research is needed to capture students' knowledge of current mental health services being offered on their campuses and consequently its successful utilization.

Research Question 2 (Attitude)

Findings from research Question 2 identified the most prominent gender differences in students' perception of campus mental health services being beneficial towards their mental health. This research found that females held a more positive viewpoint towards campus provided mental health services than any other gender. Specifically, positive perceptions among female college students were determined when answering agree/strongly agree to the survey question "attending a campus mental health workshop would benefit my mental health". The finding that most female college students view campus mental health services positively is supported by previous literature from Al-Damarki, Thomas, & Yaaqeib (2016) which found that almost all female participants surveyed on a university campus held positive views towards mental health treatment. Additionally, no significant gender differences were observed in this study when assessing students' willingness to seek out mental health services while on campus. Participant responses collected found that female college students had a slightly higher percentage of responses that supported willingness to seek out mental health services and males demonstrated the least

amount of willingness to seek mental health services. However, student's collective responses demonstrated positive attitudes towards mental health services through overall willingness to seek out mental health services while on campus. These findings differ from a previous study that highlights significant implications collected from male college students' perceptions and help-seeking behaviors towards campus mental health services (Debate et al., 2018; Conceicao, Rothes, & Gusmao, 2022). Debate et al. (2018) found that among male college students surveyed, negative perceptions towards mental health was associated with less willingness to seek out mental health services.

Research Question 3 (Practice)

Results collected from research Question 3 identified low utilization rates of campus mental health services across all racial/ethnic groups. However, racial/ethnic differences were observed among college students' responses to the survey question "I have sought mental health services on campus". Findings from this study identified the most significant under-utilization of mental health services by Black or African American college students who were most likely to respond as Never having sought campus mental health services. Similarly, low utilization rates among Black or African American college students are consistent with a previous study that found more than half of Black college students positively screened for suicide were not receiving any mental health service (Busby et al., 2021). Also, this is supportive of a separate study that highlighted a trend in reduced utilization of mental health services among Black college

students who suffered from mental illness (Lipson et al., 2022). Identifying Black or African American college students as being most likely to under-utilize campus mental health services is an important finding from this study. Additionally, this study also found that Black or African American college students were most likely to respond as Never having attended group counseling services or wellness workshops.

Furthermore, in contrast to previous studies, this study did not find any significant differences between the utilization of mental health services between students of color and White college students. In fact, White college students were found to have similar rates of underutilization of mental health services compared to that of racial/ethnic minorities. In comparison, previous studies found that White college students were more likely to report the use of campus mental health services and higher rates of medication use, therapy, or diagnosis of mental health illnesses compared to all other racial/ethnic groups (Sontag-Padilla et al., 2016; Lipson et al., 2018). Overall, this research study found that across all racial/ethnic groups there was a significant trend in underutilization of campus mental health services and highlights the need to determine what is preventing students from accessing these services. Previous studies have identified potential barriers to utilization such as being embarrassed to discuss mental health issues with others, negative perceptions of mental health services, and not having time or scheduling issues for accessing services (Ebert et al., 2018).

Strengths and Limitations

This study faced some limitations that promote the need for future research. First, a shorter study time frame whereby data collection was done in the first semester of the school year and survey data was only collected for a period of eight weeks. The time frame could have been extended to obtain a deeper understanding of the Knowledge, Attitude, and Practices of mental health services among college students throughout the year. Second, the study did not include International college students as a demographic group option in the questionnaire. This limitation was identified as many previous studies referenced the disparities that International college students face in their knowledge, understanding, and utilization of mental health services (Lipson et al., 2018; Zhou et al., 2022). Third, data was collected through an online survey which increased the possibility of response bias as well as lack of motivation to participate. Lastly, the survey created for this study did not include questions that identified specific barriers that are preventing students from accessing on campus mental health services. Thus, this limitation provides support for future research to be conducted to address specific factors that inhibit the use of mental health services among college students who are already knowledgeable of the existing resources.

Despite these limitations, this study had many strengths. First, the sample size of the study was large enough to provide a clear analysis of the data collected for each research question and potentially become a good place for a

pilot study. Second, the primary data collected is relevant to emerging research on mental health among college students and provides a great look into post-pandemic use of mental health services. Third, the study included a diverse demographic population that mirrors that of the university's demographic characteristics, thus aiding in providing relevant information to this population.

Recommendations for Future Research and Practice

Further research is needed to bridge the gap between knowledge of mental health services and their successful utilization. This study found that college students overwhelmingly demonstrated knowledge of the mental health services available to them on campus, however there was a significant lack of utilization across all demographics. Globally, researchers found that in low/middle income countries, up to 85% of the population with severe mental illness receive no treatment (WHO, 2021). The percentage of those who do not access mental health services in high income countries, such as the U.S., are around 35 to 50% (WHO, 2021). The high percentage of populations without access to mental health services worldwide supports the necessary expansion of mental health services to support the mental health needs of individuals. Future studies would benefit from including questions that aim to identify specific barriers to utilization (i.e., time, lack of interest, social stigma) (Ebert et al., 2018). In addition, this study recommends that universities assess overall mental health literacy, which includes knowing the signs and symptoms of mental health illnesses, among college students in order to provide a better understanding of

students' hesitancy to utilize the free services provided to them (Rafal et al., 2018). Furthermore, another recommendation for future research includes expanding on mental health perceptions among Sexual Gender Minorities (SGMs). This study found that gender differences among students' perceptions of mental health services continue to exist but would have benefited in including separate categories for other gender-identifying individuals rather than being grouped together.

Recommendations for future practice were also identified. First, future practices among college campuses are needed to focus on addressing specific barriers to utilization of mental health services, such as expanding service hours in the student health center to accommodate a greater number of students. This is consistent with previous research that found that the most common barriers to utilization have been lack of time, perceived self-stigma, and preference for independently dealing with mental health issues rather than seeking support (Buige, Nguyen, & Harris, 2021). Second, college campuses should incorporate gender specific approaches to improve the perception of mental health services among males. To increase help-seeking behaviors among males, Sagar-Ouriaghli et al. (2019) recommends incorporating behavior change techniques that specifically target men to increase their willingness to seek out mental health services. These strategies include engaging men with brochures or documentaries that provide gender-specific education and bringing in role models to increase the credibility of these resources (Sagar-Ouriaghali et al.,

2019). Third, colleges should adopt interventions to address behavior health equity and aim to increase utilization of mental health services among Black students of color. Specific strategies supported by SAMHSA include building relationships with trusted community organizations and incorporating a diverse behavioral health workforce (SAMHSA, 2020). Colleges would benefit from utilizing on-campus organizations that are trusted among the student body to promote mental health services and build long-lasting partnerships.

Conclusion

The purpose of this study was to analyze the Knowledge, Attitude, and Practice of college students towards campus mental health services provided to them at a public university in Southern California. This study was conducted in order to gain a better understanding knowledge and ultimately the utilization of mental health services on college campuses since the World Health Organization (WHO) identified mental health as a rising public health issue with nearly a billion people worldwide being identified as living with a mental health disorder (WHO, 2022). This study found that a majority of college students were aware of the mental health services on campus, although an overwhelming majority did not utilize these services. Furthermore, this study also identified gender differences in perceptions of mental health services, where Females were more likely to agree that attending a campus mental health service would positively benefit their mental health than any other gender. Men were also identified as being the least willing to seek out mental health services. Lastly, overall utilization rates

were low across all demographic groups with Black or African American college students having the lowest rates of utilization. In summary, there is a need for colleges to assess the barriers preventing utilization of mental health services on their campuses to increase the use of these important underutilized services. College campuses should also adapt their communication to the needs of the student population in order to reduce stigma, increase usage, and promote their mental health services.

APPENDIX A
INSTITUTIONAL REVIEW BOARD APPROVAL FORM



October 24, 2022

CSUSB INSTITUTIONAL REVIEW BOARD

Expedited Review

IRB-FY2023-63

Status: Approved

Prof. Salome Mshigeni

CNS - Health Science

Dear Prof. Salome Mshigeni:

Your application to use human subjects, titled “Mental Health Services on a College Campus” has been reviewed and approved by the Institutional Review Board (IRB) of CSU, San Bernardino. The CSUSB IRB has weighed the risk and benefits of the study to ensure the protection of human participants. The study is approved as of October 24, 2022. The study will require an annual administrative check-in (annual report) on the current status of the study on October 23, 2023. Please use the renewal form to complete the annual report.

This approval notice does not replace any departmental or additional campus approvals which may be required including access to CSUSB campus facilities and affiliate campuses. Investigators should consider the changing COVID-19 circumstances based on current CDC, California Department of Public Health, and campus guidance and submit appropriate protocol modifications to the IRB as needed. CSUSB campus and affiliate health screenings should be completed for all campus human research related activities. Human research activities conducted at off-campus sites should follow CDC, California Department of Public Health, and local guidance. See CSUSB's [COVID-19 Prevention Plan](#) for more information regarding campus requirements.

If your study is closed to enrollment, the data has been de-identified, and you're only analyzing the data - you may close the study by submitting the Closure Application Form through the Cayuse Human Ethics (IRB) system. The Cayuse system automatically reminds you at 90, 60, and 30 days before the study is due for renewal or submission of your annual report (administrative check-in). The modification, renewal, study closure, and unanticipated/adverse event forms are located in the Cayuse system with instructions provided on the IRB Applications, Forms, and Submission Webpage. Failure to notify the IRB of the

following requirements may result in disciplinary action. Please note a lapse in your approval may result in your not being able to use the data collected during the lapse in the application's approval period.

You are required to notify the IRB of the following as mandated by the Office of Human Research Protections (OHRP) federal regulations 45 CFR 46 and CSUSB IRB policy.

- **Ensure your CITI Human Subjects Training is kept up-to-date and current throughout the study.**
- **Submit a protocol modification (change) if any changes (no matter how minor) are proposed in your study for review and approval by the IRB before being implemented in your study.**
- **Notify the IRB within 5 days of any unanticipated or adverse events are experienced by subjects during your research.**
- **Submit a study closure through the Cayuse IRB submission system once your study has ended.**

The CSUSB IRB has not evaluated your proposal for scientific merit, except to weigh the risks and benefits to the human participants in your IRB application. If you have any questions about the IRBs decision please contact Michael Gillespie, the IRB Compliance Officer. Mr. Michael Gillespie can be reached by phone at (909) 537-7588, by fax at (909) 537-7028, or by email at mgillesp@csusb.edu. Please include your application approval number IRB-FY2023-63 in all correspondence. Any complaints you receive regarding your research from participants or others should be directed to Mr. Gillespie.

Best of luck with your research.

Sincerely,

King-To Yeung

King-To Yeung, Ph.D., IRB Chair
CSUSB Institutional Review Board

KY/MG

APPENDIX B
SURVEY QUESTIONS

Demographics

1. What is your current academic standing level?
 - First year=1
 - Second year=2
 - Third year=3
 - Fourth year=4
 - Fifth or more=5
 - Graduate student=6
 2. What is your age range?
 - 18-21=1
 - 22-25=2
 - 26-29=3
 - 30+=4
 3. What best describes your race/ethnicity?
 - Whites/European American = 1
 - Black or African American = 2
 - Hispanic or Latino = 3
 - Native American = 4
 - Asian or Pacific Islander = 5
 - Other = 6
 4. What is your gender?
 - Female=1
 - Male= 2
 - Other=3
- I. **What is the current knowledge regarding mental health services offered on campus among college students?**
1. I am aware of **mental health services**.
 - Strongly Agree = 1
 - Agree = 2
 - Disagree = 3
 - Strongly Disagree = 4
 2. I have heard of **campus wellness workshops** being offered to students here on campus.
 - Strongly Agree = 1
 - Agree = 2
 - Disagree = 3
 - Strongly Disagree = 4

3. I have heard of campus **Individual counseling sessions** being offered to students.
 - Strongly Agree = 1
 - Agree = 2
 - Disagree = 3
 - Strongly Disagree = 4
4. I have heard of campus **Group counseling sessions** being offered to students.
 - Strongly Agree = 1
 - Agree = 2
 - Disagree = 3
 - Strongly Disagree = 4

II. Among college students, are there gender differences in attitudes towards mental health services provided on campus?

1. College campuses should address mental health services.
 - Strongly Agree = 1
 - Agree = 2
 - Disagree = 3
 - Strongly Disagree = 4
2. I am willing to seek mental health services while on campus.
 - Strongly Agree = 1
 - Agree = 2
 - Disagree = 3
 - Strongly Disagree = 4
3. I believe attending a campus wellness workshop would benefit my mental health.
 - Strongly Agree = 1
 - Agree = 2
 - Disagree = 3
 - Strongly Disagree = 4
4. I would recommend on campus mental health services to a friend in need.
 - Strongly Agree = 1
 - Agree = 2
 - Disagree = 3
 - Strongly Disagree = 4

III. Among college students, are there racial/ethnic differences in the utilization of mental health services on campus?

1. I have sought **mental health services** on campus.

- Never = 1
 - Once = 2
 - More than once = 3
2. I have attended **campus wellness workshops** before.
- Never = 1
 - Once = 2
 - More than once = 3
3. I have attended **campus individual counseling** sessions before.
- Never = 1
 - Once = 2
 - More than once = 3
4. I have attended **campus group counseling** sessions before.
- Never = 1
 - Once = 2
 - More than once = 3

APPENDIX C
INFORMED CONSENT STATEMENT AND FLYER

CONFIRMATION STATEMENT:

I understand that I must be 18 years of age or older to participate in your study, have read and understand the consent document and agree to participate in your study.

I agree to participate under the conditions described above *

Yes

No

MENTAL HEALTH SERVICES ON CAMPUS



HELP US UNDERSTAND YOUR KNOWLEDGE OF CAMPUS MENTAL HEALTH SERVICES BY COMPLETING A BRIEF SURVEY.

Thank you!

REFERENCES

- Al-Damarki, F., Thomas, J. & Yaaqeib, S. (2016). Mental Health Beliefs among Emirati Female College Students. *Community Mental Health Journal*, 52, 233-238. doi: 10.1007/s10597-015-9918-9
- Alqassim, A., Makeen, A., Ahmed, A., Alqarny, A., Alrabaee, A., Aboalqasim, A., ... Alharbi, A. (2022). Exploring awareness, attitude, and practices toward mental illnesses: A cross-sectional survey among university students in Saudi Arabia. *Journal of Family Medicine and Primary Care*, 11, 4568-75. doi: 10.4103/jfmipc.jfmipc_2023_21
- American College Health Association. (2022). National College Health Assessment III: Reference Group Executive Summary Fall 2021. [PDF] https://www.acha.org/documents/ncha/NCHAIII_FALL_2021_REFERENC E_GROUP_EXECUTIVE_SUMMARY.pdf
- American Psychological Association. (2022). APA Dictionary of Psychology. <https://dictionary.apa.org/mental-health-services>
- Bantjes, J., Saal, W., Lochner, C., Roos, J., Auerbach, R. P., Mortier, P., Bruffaerts, R., Kessler, R. C., & Stein, D. J. (2020). Inequality and mental healthcare utilisation among first-year university students in South Africa. *International Journal of Mental Health Systems*, 14(1), 5–5. <https://doi.org/10.1186/s13033-020-0339-y>
- Buige, A., Nguyen, M., & Harris, S.C. (2021). Barriers to mental health care and stigma Perception in doctor of pharmacy students across the united

states. *Currents in Pharmacy Teaching and Learning*, 13, 1634-1645.

<https://doi.org/10.1016/j.cptl.2021.09.041>

Busby, D. R., Zheng, K., Eisenberg, D., Albucher, R. C., Favorite, T., Coyell, W.,

Pistorello, J. & King, C. A. (2021). Black College Students at Elevated

Risk for Suicide: Barriers to mental health service utilization. *Journal of*

American College Health, 69(3), 308-314.

<https://doi.org/10.1080/07448481.2019.1674316>

Centers for Disease Control and Prevention. (2021). Mental Health.

<https://www.cdc.gov/mentalhealth/learn/index.htm>

Center for Behavioral Health Statistics and Quality. (2016). *Key substance use*

and mental health indicators in the United States: Results from the 2015

National Survey on Drug Use and Health (HHS Publication No. SMA 16-

4984, NSDUH Series H-51). Retrieved from <https://www.samhsa.gov/data/>

Conceicao, V., Rothes, I., & Gusmao, R. (2022). The Association between

stigmatizing Attitudes towards Depression and Help Seeking Attitudes

among college Students. *Public Library of Science ONE*, 17(2). 1-14.

<https://doi.org/10.1371/journal.pone.0263622>

DeBate, R. D., Gatto, A., & Rafal, G. (2018). The Effects of Stigma on

Determinants of Mental Health Help-seeking Behaviors Among Male

College Students: An Application of the Information-Motivation-Behavioral

Skills Model. *American Journal of Men's Health*, 12(5). 1286-1296. doi:

10.1177/1557988318773656

Ebert, D. D., Mortier, P., Kaehlke, F., Bruffaerts, R., Baumeister, H., Auerbach, R. P., ... Kessler, R. C. (2018). Barriers of mental health treatment utilization among first-year college students: First cross-national results from the WHO World Mental Health International College Student Initiative. *International Journal of Methods in Psychiatric Research, 28*(2), e1782–n/a. <https://doi.org/10.1002/mpr.1782>

Hyun, J., Quinn, B., Madon, T., & Lustig, S. (2007). Mental Health Need, Awareness, and Use of Counseling Services Among International Graduate Students. *Journal of American College Health, 56*(2), 109-118. doi: 10.3200/JACH.56.2.109-118

Kalkbrenner, M. & Hernandez, T. J. (2017). Community College Students' Awareness of Risk Factors for Mental Health Problems and Referrals to Facilitative and Debilitative Resources. *Community College Journal of Research and Practice, 41*(1), 56-64. doi:10.1080/10668926.2016.1179603

Kamimura, A., Trinh, H. N., Johansen, M., Hurley, J., Pye, M., Sin, K., & Nguyen, H. (2018). Perceptions of mental health and mental health services among college students in Vietnam and the United States. *Asian Journal of Psychiatry, 37*, 15-19. <https://doi.org/10.1016/j.ajp.2018.07.012>

Lipson, S. K., Kern, A., Eisenberg, D., & Breland-Noble, A. M. (2018). Mental Health Disparities among College Students of Color. *Journal of Adolescent Health, 63*, 348-356.

<https://doi.org/10.1016/j.jadohealth.2018.04.014>

Lipson, S. K., Zhou, S., Abelson, S., Heinze, J., Jirsa, M., Morigney, J., ...

Eisenberg, D. (2022). Trends in college student mental health and Help-seeking by race/ethnicity: Findings from the national healthy minds study, 2013-2021. *Journal of Affective Disorders*, 306, 138-147.

<https://doi.org/10.1016/j.jad.2022.03.038>

National Alliance on Mental Illness. (2022). Mental Health By the Numbers.

<https://www.nami.org/mhstats>

National Institute of Mental Health. (2022). Prevalence of any Mental Illness.

<https://www.nimh.nih.gov/health/statistics/mental-illness>

Office of Disease Prevention and Health Promotion. (n.d.). Mental Health and Mental Disorders. *Healthy People 2030*. U.S. Department of Health and Human Services. <https://health.gov/healthypeople/objectives-and-data/browseobjectives/mental-health-and-mental-disorders>

Pace, K., Silk, K., Nazione, S., Fournier, L., & Collins Eaglin, J. (2018).

Promoting mental Health Help-Seeking Behavior Among First-Year College Students. *Health Communication*, 33(2), 102-110, doi: 10.1080/10410236.2016.1250065

Qing, L., Constantouros, J., Hashida, C., & Steenhauson, P. (2021). Overview of Mental Health Services for College Students. Legislative Analysts Office [LAO]. <https://lao.ca.gov/Publications/Report/4481>

Rafal, G., Gatto, A., & DeBate, R. (2018). Mental Health Literacy, Stigma, and

Help-Seeking Behaviors among Male College Students. *Journal of American College Health*, 66(4), 284–291.

<https://doi.org/10.1080/07448481.2018.1434780>

Rosenthal, B. & Wilson, W. C. (2008). Mental Health Services: Use and Disparity Among Diverse College Students. *Journal of American College Health*, 57(1), 61-67. <https://doi.org/10.3200/JACH.57.1.61-68>

Sagar-Ouriaghali, I., Godfrey, E., Bridge, L., Meade, L., Brown, J.S.L. (2019). Improving Mental Health Service Utilization among Men: A systematic review and synthesis of behavior change techniques within interventions targeting Help-seeking. *American Journal of Men's Health*, 1-18.

doi: 10.1177/1557988319857009

SB-221 Health care coverage: timely access to care. (Cal. 2021) (enacted).

https://leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill_id=20212020SB221

Singh, S., Melendez, K., & Sezginis, N. (2020). Examining the effect of discrimination and stigma on utilization of mental health services among college students. *Journal of American College Health*, 1–8.

<https://doi.org/10.1080/07448481.2021.1970561>

Son, C., Hegde, S., Smith, A., Wang, X., & Sasangohar, F. (2020). Effects of COVID-19 on College Students' Mental Health in the United States: Interview Survey Study. *Journal of Medical Internet Research*, 22(9), 1-14.

doi: 10.2196/21279

- Sontag-Padilla, L., Woodbridge, M. W., Mendelsohn, J., D'Amico, E. J., Osilla, K. C., Jaycox, L. H., ... Stein, B. D. (2016). Factors Affecting Mental Health Service Utilization Among California Public College and University Students. *Psychiatric Services, 67*(8), 890-897. doi: 10.1176/appi.ps.201500307
- Substance Abuse and Mental Health Service Administration [SAMHSA]. (2020). Strategies For Outreaching and Engaging Communities of Color: A pathway to Reducing disparities. Office of Behavioral Health Equity. Retrieved from https://share.nned.net/wp-content/uploads/2020/09/Tip-Sheet-for-StateLeaders_SAMHSA-OBHE_Revised72920_Date.docx.pdf
- U.S. Census Bureau. (2022). *Quick facts California*. U.S. Department of Commerce. Retrieved from <https://www.census.gov/quickfacts/CA>
- World Health Organization. (2022). Mental Health: Strengthening our Response. Retrieved from <https://www.who.int/news-room/fact-sheets/detail/mental-health-strengthening-our-response>
- World Health Organization. (2022). Mental Disorders. Retrieved from <https://www.who.int/news-room/fact-sheets/detail/mental-disorders>
- World Health Organization (2021). Comprehensive Mental Health Action Plan 2013-2030. [PDF]. <https://www.who.int/publications/i/item/9789240031029>
- Yorgasen, J. B., Linville, D., & Zitzman, B. (2008). Mental Health Among College Students: Do Those Who Need Services Know About and Use Them?. *Journal of American College Health, 57*(2), 173-81.

doi: 10.3200/JACH.57.2.173-182.

Zhou, X., Zhou, A. Q., & Sun, X. (2022). Prevalence of common mental health concerns and service Utilization among International students studying in the U.S.. *Counseling Psychology Quarterly*, 35(3), 483-502.

doi: 10.1080/09515070.2021.1875400